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The Medical Practitioner

A Monthly Medical Journal

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We are obliged to the members of the medical profession who most cordially met our Representative, now touring in Southern Districts. Suggestions kindly offered by them both in the matter of the journal and their local grievances have been carefully noted and will be given effect to as occasions arise for the desirability of carrying out these suggestions. With due respect to the wishes of many of the practitioners, we beg to convey to them that we are still most reluctant to send the journal by V.P.P. for the recovery of subscription.

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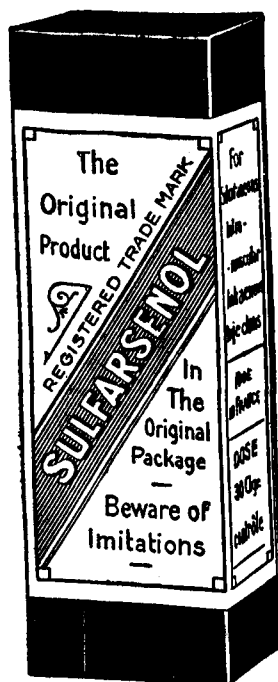
The bottles, labels, printing and wrappings were all exactly imitated. Large shipments were made to Cuba and Mexico by deluded purchasers of the counterfeit medicines. Several arrests have been made but the police do not yet believe that they have caught all the men involved in the fraud which has cost reputable houses many thousands of pounds.

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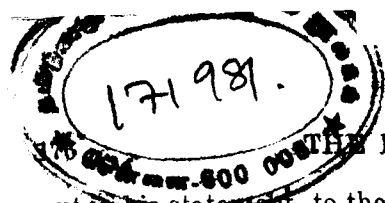
APRIL, 1930

[No. 7

THE GENERAL MEDICAL COUNCIL'S THUNDERBOLT AND AFTER

As early as December last, it was pointed out in our News and Comments columns that the thunderbolt hurled by Sir Donald Mac Alister, the President of the General Medical Council regarding the non-acceptance of the Indian university medical qualifications by the General Medical Council was not likely to be taken back, for we could judge from the feelings expressed by the non-official element in the Legislative Assembly that it was not possible for the Government of India to go against the almost unanimous verdict of the Assembly regarding the appointment of Col. Needham as Commissioner to the dictation of the General Medical Council. The nervousness displayed by those who govern the destinies of our country both in England and in India in not giving a fitting reply to the General Medical Council which is after all a creature brought into existence by an Act of Parliament shows the influence the independent medical profession wields in Great Britain. If in India we had a well-organised medical profession, the General Medical Council would have thought twice before they challenged the verdict of the Legislative Assembly. We trust that our leaders like Dr. Jivraj Mehta who have been striving hard to educate the political leaders and were successful to set at naught the suggestion of the General

Medical Council, would now lose no time to organise the independent medical profession in India so that the proposed All-India Council would be a reality and not a farce as are the provincial councils to-day. Thunderbolts always usher prosperity in an agricultural country like India whose children are accustomed to the noise they make and always feel joyous and hopeful that happy showers will follow soon. There has been discontentment in the hearts of a very large majority of medical men in this country whose medical qualifications were not recognised at all either now or before and nothing has been done so far by our patriots to allay their feelings. The L. M. S. qualification of the Madras and of many other universities, the L. M. P., the L. M. F. and other diplomas granted by the recognised medical schools in India are all in the above category. The old M. B. & C. M., and the present M. B. B. S., university qualifications of a few universities such as those of Madras, Bombay, Calcutta, Lucknow and Lahore were the only Indian universities that had been till now recognised by the General Medical Council and quite recently it refused to recognise the Calcutta M.B.B.S., as the university authorities had not allowed a nominee of the General Medical Council to supervise the university examinations. So, the General Medical Council's threat, if it affects anybody at all, affects only the graduates of the five universities mentioned above. Dr. Jivraj Mehta has pointed



out in his statement to the press that even these need not be alarmed as we have methods to make these threats innocuous. On the 20th March 1930, Sir Frank Noyce on behalf of the Government of India, in the course of answering short notice questions made a statement that the Government would do their best to act with promptitude and that the Government were determined to ensure the autonomy of India in this matter by establishing an All-India Medical Council which would be able to regard the recognition of medical qualifications on the basis of complete equality. The decision of the General Medical Council is certainly a blessing in disguise to the medical profession in India. It had awakened the Government of India and Provincial Governments, and we trust it will unite the entire profession in India so closely together that it would be impossible for any outside Medical Council to question about the medical qualifications in India. From the published resolutions of the General Medical Council one would note that there was no reference in them to their reconsidering their present attitude when an All-India Medical Council is constituted. There can never be any guarantee that the General Medical Council will not come forward and say that the courses of study and standards of examination as laid down by the Indian Medical Council do not come up to the "Guarantee of sufficiency" required by the General Medical Council. We would, therefore, urge that none from India should ask the General Medical Council to reconsider its decision. It is for the independent medical profession to take up the 'next move' and unite themselves in a way expected of them at this crisis.

The Government of India and the Madras Government assure that they would try to force, if necessary, the General Medical Council to reconsider its decision and recognise the Indian universities' degrees. They need not take any such trouble. By the with-

drawal of recognition of Indian degrees by the General Medical Council, the Indians are not affected much. So, instead of taking the extraordinary step of compelling the General Medical Council to reconsider its order, it is within the power of the Indian Government, to declare the British qualifications as unregistrable in India and disqualify their holders for any appointment or practice in India. The Minister of Health, Madras was very vehement in his speech and said that as a last resource he would retaliate the General Medical Council and pay it in the same coin by withdrawing recognition of British qualifications for service and practice here. He has now an opportunity of translating his words into action. Certain professors are to be appointed for the Medical College, Madras. Will he state in the advertisements, calling for candidates, that British qualifications will not be accepted and appoint only holders of Indian degrees?

For further comments and information on this subject, we invite the attention of our readers to the thought-provoking statements which appear in our Correspondence columns and sent to us for publication by Dr. Jivraj N. Mehta, Dean, King Edward Medical Hospital, Bombay and Dr. K. S. Ray, M.A. M.B.Ch. (Edin) Calcutta.

FAREWELL TO MAJOR-GENERAL MEGAW SURGEON-GENERAL WITH THE GOVERNMENT OF MADRAS

We could not bid timely farewell to Major-General Megaw who handed over his charge on 21st ultimo of the office Surgeon-General of this province to take up the office of the Director-General of the Indian Medical Service. Our March issue was out before he actually relinquished his office, and though it is now nearly three weeks since he has left Madras, we are second to none in appreciating his administration which, though short, was really sweet-

in as many ways as it was possible for him to make it. One usually sees in officers belonging to the I. M. S. and other such high services that as they rise higher and higher, their necks turn stiffer and they make others feel that they are the lords of all they survey and there is none to question their sway. Major-General Megaw grew humbler as he rose higher and he made it plain to his guests that assembled to bid him farewell by exhorting the district medical officers and civil surgeons that such big appointments would pay them doubly if they considered themselves as the servants of the public and not their masters. We feel that many of the qualities of the head and heart which he displayed during his brief tenure of office, must have been cultivated by him as a journalist as he was for a pretty long period the Chief Editor of the *Indian Medical Gazette*; for, honest and sincere journalists are able to get true and unbiased news of all that is going on in the territory covered by their activities which the Government of the land cannot hope to get even through their well-organised and highly paid agencies, including the secret service. So it happens that the pen is more powerful than the sword to set right evils. Surgeons-General have come in and gone out of this province but none except Surgeon-General Megaw could detect that in many of the hospitals and dispensaries the patients were getting medicines without the ingredients prescribed to make up such medicines. This was an open secret and this culpable neglect has been going on ever since the Government started the medical institutions. Yet it was only detected in 1928 by Surgeon-General Megaw and we hope his successors will not relax the supervision over this their most important duty that the suffering patients get their medicines as per the prescriptions indicated for their ailments. We wish to be fair to such of the medical officers who could not but connive at this state of affairs as the red-tapism

often prevented them to have their supplies in time and in sufficient quantities. We trust the Government would not give any room to be itself a party to the crime detected by its Surgeon-General. Major-General Megaw had been striving hard, though perhaps without tangible results, to purify the department of which he was the head and in this task he was prudently cautious. He found that some of the officers were rather lax in the matter of issuing medical certificates, some of which he found to be far from truth, inaccurate and at times hardly believable. We refrain from saying "false" as at times it is quite possible that gross ignorance may be the cause and it is always safe to take one as honest unless proved otherwise. As a judge he was always merciful and all those under him whom he saw swerving away from the path of honesty and duty seem to have been let off with severe warnings. Even since he took charge of the office of the Surgeon-General, not a single day passed without a departmental circular bringing to the notice of all concerned of what he detected and advising his officers to aspire for high ideals in the discharge of their duties. He did not make secret of the fact that very large amounts of money were being spent by the department under him, due of course, to causes beyond his control as he had to follow for some time at least the costly administrative policy of his predecessors, and if he had been spared for this province for some time more, the public and the medical profession would have had tangible proof of his intentions. The administration of the immediate predecessors of Major-General Megaw has been extravagantly costly in the matter of appointments and other details. This gave room for some officers to award prize appointments to their immediate subordinates in appreciation of good services rendered to them individually. New appointments were created and many civil surgeoncies provided and a new theory promulgated that unless one was a civil surgeon he could not

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discharge his responsible duties, satisfactorily. Seniority, university qualifications and even special foreign qualifications did not count much during that regime. Consequently some have been superseded in the provincial service in the matter of their promotions to civil surgeoncies. This gave rise to discontent and disappointment to many. Major-General Megaw must have come to know about the state of affairs and we are aware of a few instances where he set right matters though not quite satisfactorily as it was not possible for him to upset the appointments already made. He knew very well that everything was not well with his department and that many of the institutions had fallen below the standard of efficiency and he was anxious that the public should get the full value of the money spent for medical relief. He called a conference of all the officers under him in all the districts and discussed with them his administrative policy and showed them the best way of serving the public was by spending as little money as possible. Though we are convinced of the fact that unless and until the independent medical profession is entrusted with the responsibility of medical relief, any scheme or any policy by the best of Surgeons-General is bound to be a failure; yet we admire him for his sagacity in asking for co-operation and help from his subordinates to carry out his schemes. Major-General Megaw had a splendid opportunity of bringing about reform in the medical education in this province. The profession was lucky that when the Honourable Minister of Public Health felt the necessity of entrusting the problem of medical education to a committee, Major-General Megaw was the Surgeon-General and was the Chairman of this Committee. Though strictly speaking the necessity of creating such a committee was unjustifiable on account of the existence of a Statutory Body, the Medical Council, which alone can guide and control the medical education; it

was godsend that the Government did not think of referring this question to the Medical Council, nor did the Council claim this responsibility, for the affairs of this Council, as it is constituted and conducted to-day, are far from satisfactory. Though the report of this Committee is not published as yet, we heard from the Honourable Minister of Public Health the gist of this report referred to in our "News and Comments" columns of the last issue. The Committee seems to have unanimously recommended that there should be a uniform system of education and that the curriculum of studies at the medical schools should be raised in efficiency and that the course should extend for five years as in the medical colleges. But for the healthy inspiration of Major-General Megaw in this Committee, we would not have had this unanimity. The members of the independent medical profession, at least those who had no opportunities of knowing Major-General Megaw at close quarters, will be glad to know that his heart was as sound as it could be in his recognition of the aspiration and abilities of the private practitioners especially in the matter of their being appointed as honoraries in as large numbers as possible. We are in a position to say that Major-General Megaw is not wholly responsible to the present unworkable system inaugurated by the Government in the appointment of honoraries as supernumeraries. No responsible work could be achieved if the scheme is allowed to work as it is now. It seems to be Major-General Megaw's opinion that mixing up of honoraries and paid staff in one and the same institution will not yield satisfactory results, nay, bound to be a failure. His idea is that the honorary should enter a hospital with the sole purpose of learning and serving, and he is in favour of gradually replacing the paid staff by honoraries especially in the matter of medical relief. It will not be out of place if we inform our readers that Major-General Megaw

is quite conscious of the fact that there exists to-day an unwholesome and unequal competition ending in unhealthy rivalry between the state-paid doctors and private practitioners in this province especially in this city, and if the members of the independent profession organise themselves in the way expected of them and were bold enough to bring to the notice of this officer concrete instances where the state-paid doctors misused their right of private practice, he would have dealt with them satisfactorily. Major-General Megaw had his own views regarding each of these practices and we would expect some solution in this direction though not very soon. The whole of the medical department, the independent medical profession, the Government and the public are all sorry to-day that they cannot have the services of an able, honest and impartial administrator whom they needed in this province, but are consoled by the fact that he is still with us in a higher sphere of office from where he could, if he minds, guide the destinies of the medical profession, especially so as his successor Col. Sprawson seems to be his personal friend and about whom he spoke very highly when he bade farewell to his guests on the 20th ultimo at the Madras Medical College.

"Good-bye to you, Major-General Megaw. What we have said about you is neither flattery nor exaggeration".

MEDICAL BUDGET TOKEN CUTS AND MINISTER'S REPLIES.

In the March issue we pointed out the responsibilities of the Government towards the problem of medical relief and how the medical administration could be made less expensive by entrusting to the independent medical profession their legitimate duty in the matter of medical relief. We said then and repeat it now that this cannot be brought about all at once, and the Government should build up

a strong foundation now if it is really earnest in their policy of replacing paid-staff by honoraries. Mr. A. B. Shetty to whom the profession and the public should be grateful for his attempts to bring about reform in the medical administration in this province, pointedly brought to the notice of the Government that they should concern themselves only with public health, and medical relief should be left to private agencies. The Minister in his reply, from what we could see in newspapers, brushed aside this aspect of the question and betrayed want of insight not only in the Madras Government but the Government in general throughout India by saying that proportionately larger amounts were spent in this country on medical relief than in other civilised countries. The Honourable Minister perhaps is not aware of the fact that the toll of 4 to 5 million victims that preventable diseases gather annually in India makes it in the words of the Public Health Commissioner of the Government of India "a reservoir of infection and a dangerous international offender." To make this reservoir less dangerous should be the aim of a responsible Government and not to appease the lay-members of the Council by a statement of the nature made by the Minister. We pointed out last month in these columns that the Government cannot say 'No' to the representatives of the people in case they press for starting of medical institutions other than Allopathic Western system. If we can borrow the expression used by an M. L. C. and repeated by the Honourable Minister on the floor of the Legislative Council, the Indian Medical School was one of the other pet children of the late Rajah of Panagal and is being reared and nurtured now. An M.L.C. who has faith in Homeopathic system of medicine and who was returned by the help of the votes of many who used that system for curing their ailments, did give notice of a token cut to induce the Government to introduce that system of medical relief. Fortunately or unfortunately,

there was not time to reach this cut, and it will not be out of place to repeat what we said in this connection last month, viz., "The cheapest arrangement will be for the Government to entrust the duty of medical relief to the independent profession of whatever system as is done in other countries and the Government however making themselves responsible to see that the practitioners of such systems are really qualified." Mr. Shetty pleaded quite justifiably that honorary system has not been given an honest and fair trial. In the matter of honoraries, the Government made an eyewash by appointing them as supernumeraries. There is surely a lack of responsibility in a supernumerary, and if it is the intention of the Government to train the honoraries to take up any responsibility in Medical work in state hospitals, the Government should stop fresh recruitment and post these honoraries in place of paid officers. The Minister stated that about 30 to 40 honoraries had been appointed, and the system would be extended to institutions other than the headquarters hospitals. Many young doctors who could not command practice for want of perseverance seem to have rushed or to be rushing to get the honorary posts, but we are afraid they will soon learn where they are. Such of them as have rich parents might cling to these for some time; others who cannot afford to wait will soon know to their cost that they have lost much and gained little by way of money by not sticking to their place of business. Either in the city or in the mofussil where honoraries are being entertained, if the Government do not define and restrict the right of private practice by state-paid officers as demanded by Mr. Shetty and allow them to run dispensaries, chemists' shops and nursing homes all of which is certainly against the existing C.R.S. regulations, the honoraries will prefer to stick to their consulting rooms rather than serve the public and the Government as honoraries. It will be then very easy

for the Government to say that the honorary system was tried and was a failure. Regarding the misuse of the term 'Private practice' by state-paid doctors, the Minister assured the Council that the Government would welcome any information given to them of specific cases. It is really sad that even the Government seem to be helpless to check their officers when they were found violating the rules of private practice. The Minister admitted that he heard some complaints last year and took care to prevent that kind of private practice complained against. Yet we find this year in this city, three nursing homes instead of one that existed last year, run or controlled by officers employed in state hospitals with the help of their assistants, who are also employed in Government hospitals not to mention of other business run by them such as chemists' shops, soliciting private practice in rooms specially rented near the chemists where they are openly conducting their business. Hence after the complaints, the evil has become actually worse.

Mr. A. B. Shetty referred to the Rural Medical Relief Scheme. This is yet another farce, though the Government do not actually mean it so. Some of the taluk board presidents play "The wolf and the lamb story" with the practitioners of the rural scheme. Any number of G. Os. which the Honourable Minister is pleased to pass to improve the condition of this scheme will not mend matters so long as the control is left in the hands of taluk board presidents whose term of office depends upon popular votes secured under various obligations; one of them being that of finding employment to their kith and kin, or to those who canvas votes during any election in which the taluk board president is interested. So the popularity or otherwise of a rural practitioner depends not so much on his professional capacity as his ability to adjust himself to the needs of the taluk board presidents in relation to elections and

such matters. If the Government is really keen that this scheme should run satisfactorily, they should make the district as the unit of the scheme and not a taluk for the purpose of administration and the rural dispensaries run on the lines similar to Grant-in-aid schools through District Medical Councils constituted in the same way as the District Educational Councils, and the immediate supervision being vested in the district medical officer. In fact, as early as 1927, a resolution more or less on the lines indicated above, seems to have been passed by the provincial rural medical practitioners and communicated to the Government. We would go a step further and say that all the district medical institutions might be run under the control of such a district council. If this arrangement is working satisfactorily in the Educational Department, why not in the Medical? Indianisation of Medical Service, inadequate arrangement for the treatment of social ailments such as venereal diseases, consumption, leprosy, were other subjects brought to the notice of the Government by Mr. Shetty and the Minister's replies were not as satisfactory as one expected from the Honourable Mr. Muthiah Mudaliar who, all the same, was as sincere as he could be in the position he occupies with a set of advisers round him, whom he could neither control nor command. Such is the Government machinery under the Diarchy system.

We are obliged to the Surgeon General for supplying us the list showing the postings of the Sub. asst. surgeons. The list for the Month of March has been Published elsewhere; and every Month such a list will appear in our columns.

Original Articles.

ENDOCRINOLOGY

BY

M. S. KRISHNAMURTHY AYYAR,
M. B. & C. M.

VII

THYROID GLANDS.

Dysthyroidism.

It is usual to classify diseases of the thyroid as hypo or hyper thyroïdism indicating under or overaction of the gland and also as athyroidia or absence of the gland. In the matter of underaction, it is generally true that the gland is primarily at fault, but in the case of overaction, that is seldom the case except where there is a definite local irritant. The cause of overaction is generally a toxemia which irritates not only one gland but many though in different degrees. In looking for a cause of underaction, it is always well to remember the possibility of a long continued toxemia of overaction leading to exhaustion of glands or gland in question and this is frequently the case with the thyroid as it is chiefly concerned in combating endogenous toxins.

Athyroidea Totalis.

The thyroid is either absent or sclero-atrophic. *Skin*: diffuse, myxedematous, infiltration of pale yellowish colour, dry, furrowed, squamous, cold and senile. Sunken, atonic and drowsy looking eyes. *Hair*: eyebrows and body hair sparse or slowly falling, opaque and dry. *Nails*: atrophic and fragile. *Teeth*: deciduous, carious. *Muscles*: flacid, sclero-atrophic. *Bones*: atrophied sclerotic fragile. *Genitalia*: atrophied only in advanced cases. In women, amenorrhœa or menorrhagia. In men, anaphrodisia, impotence. *Psychic*, psychomotive and psychosensorial reaction, slow. Deep torpor, ideational, mnemonic, volitional and emotive deficiency. *Tendency to hallucinations, depressive psychosis and somnolence;*

speech slow and monotonous. *General health*: Cachectic condition masked by myxedematous infiltrations. *Metabolism*: serious slackening of basal metabolism and albumin combustion, high carbohydrate tolerance, oliguria, hypothermia, keen cryesthesia. *Blood*: slight anemia with low corpuscular value, mononucleosis, eosinophilia. Lowering of the autonomic tone, principally of the sympathetic. Bradycardia, microphygmia, absence of sudor; marked intestinal atony when occurring in periods of growth, arrest of skeletal development, chiefly in the length of bones, hence trunk is thickset, bones tubular, short, stumpy. Arrest of dental, cranial, facial, and genital and intellectual development. Deficiencies in hearing and speech. Infantile balloon-like body.

Partial Hypothyroidism.

Minor degrees of thyroid inefficiency are difficult of recognition. The observer's eye must be educated and his senses kept in alert to detect the onset. They are very common and more frequent than exanthemata. It complicates pediatric problems more often than almost any other single condition except perhaps disorders of infective origin. They are often hereditary. Knowing that no tissue is able to escape the results of the impoverishment of the thyroid glands, the frequency of insufficiency of thyroid becomes evident. It is important in the causation of many functional gynecological troubles as well as in many of the complexities of the internal medicines. Neurologists consider it as a much more frequent vital factor in difficult cases than has previously been supposed as it is a complicating element in the many chronic diseases including that symptom-complex "neurasthenia." The chief manifestation in children are nocturnal enuresis, night terrors, grinding of teeth, undescended testes, hernia, particularly umbilical hernia, cooing sound heard during sleep, enlarged lymphatic glands in the neck, adenoid and enlarged glands, rie-

kets, chorea, epilepsy, carious and irregular teeth, leucoderma, ichthyosis, psoriasis, eczema, urticaria, rough skin, reduction of sensible perspiration and in advanced cases not even exertion in summer heat will awaken the dormant sweat glands. *In adults*: Loss of hair particularly at the outer part of the eyebrow, baldness, frequent abortion and dysmenorrhœa and menorrhagia in women, premature greyness of hair, slender, thin, glistening, transparent, small, pearly or bluish white teeth, obesity, particularly after the first child-birth, sterility and leucorrhœa in women, hump over the seventh cervical vertebra, hard lump below the breast, mental slowness, giddiness and noises in the ear, aching of the limbs and back, especially between the scapulæ. The joints are stiff, cracking noises in the joints, subnormal temperature in the evenings, when especially there may be fits of shivering simulating malaris, general chilliness and cold extremities, fatigue especially in the mornings, severe occipital and interscapular pain, obesity with supraclavicular fat pads, hallucinations of sight, melancholia, or at least uncontrollable sadness.

Morbid Hypothyroidism.

Myxedema. This is characterised by deficient oxidation and catabolism, and the main symptoms of which are hypothermia, infiltration and swelling of the cutaneous tissue including those of the face, increase in weight, dryness of the skin, marked weakness and mental torpor. These patients suffer from cold and their temperature is subnormal. The least exposure to cold causes the lips, nose ears and fingers to become cyanotic. The infiltrated tissues are elastic, firm and resistant; but do not pit on pressure as in true edema. The nails are brittle and thin, sometimes curved and ridged and occasionally undergo atrophy. The patches of pigmentation varying from yellowish brown to actual bronzing of Addison's disease are occasionally seen. The hair also changes in appearance. It becomes

coarse and lustreless and brittle and fall out in patches. There are observed red patches of skin below each cheek bone; the teeth tend to decay and may become black. Owing to the tumefaction of the oral or nasal mucous membranes, the voice becomes nasal and owing to the approximation of the vocal cords, speaking becomes difficult. Great lassitude with the exhaustion is the rule, the sense of taste and smell are impaired. Vertigo is common, vision is occasionally dim and optic atrophy is also observed. Hemorrhages from one or more organs are common; pulse is slow and weak.

Cretinism. This is characterised by retardation of mental and physical development and the main symptoms are stunted growth, the cretinic faces with flattened nose, thickened lips and tongue, harsh skin, and more or less advanced idiocy. Tongue is usually thick and project beyond the lips at all times. The fontanelles remain patent unusually long, the teeth which may be represented by a few short points are irregular and tend to decay early. The second dentition which often fails to occur at all, being long delayed at best. The teeth are liable to caries, epistaxis and bleeding at gums are common. The child fails to recognise its parents and nothing, even toys interests it in the least. It neither weeps nor laughs, it is absolutely apathetic and sits quietly without manifesting any special wants.

Myxedematous infantilism. The patient is short, thickset and obese, though childlike in shape, may look old for his age. The face appears bloated, rounded, pale and wax-like, a reddish patch being sometimes found below the cheek bones, the nose squatty and pugged and the mouth is large and the tongue is thickened. The hair may be profuse though coarse and lustreless, the teeth remain infantile and decay early, the abdomen prominent and there is stubborn constipation. The child may be bright unlike in cretinism. These patients show a proclivity to lie,

steal and start fires etc. The heart is excitable and violent palpitation and tachycardia are observed. Hemophilia is common, epistaxis, menorrhagia and metorrhagia are common. The penis and testicles often remain rudimentary and the patient's general shape and high pitched voice recall those of a woman. The feminine attributes are sometimes very marked in the males.

Hyperthyroidism.

Exophthalmic Goitre. Grave's disease; Basedow's disease; Flajanis disease, Parry's disease. The three cardinal symptoms otherwise called the "merseburg-triad" are goitre, exophthalmous and palpitation of the heart. This is a constitutional disease due to the excessive functional activity of the thyroid and to the resulting dilatation of all arteries which the excess of thyroid secretion causes by producing excessive phosphorus oxidation in all tissues including the vascular muscles and the depressor-nerve. The chief symptoms as enumerated by Barker are:—

In the head and neck.—Von Graefe's sign, Dalrymple's sign, protrusion of the eyeballs; epiphora in some, and dry eyes in others; Loewi's phenomenon and excess or lack of saliva.

In the respiratory system.—Asthmatic attacks, dyspnea or tachypnea.

In the circulatory system.—Tachycardia, pulses irregularis respiratorius; vasomotor angina; subjective palpitation; transitory changes in blood pressure; vasomotor symptoms especially temporary erythemas and dermatographism.

In the digestive system.—Gastro-spasm and pyloro-spasm; gastric hypo or hyper-acidity; spastic constipation; unmotivated watery, painless diarrhoeas and unmotivated vomitings.

In the uro-genital system.—Pollakiuria, polyuria and oliguria; certain disturbance of menstruation and of lactation; certain disturbance of sexual libido and potentia.

In the cutaneous glandular system.—Profuse sweating.

Nervous system.—Hallucination of sight and hearing.

Goltre.—Struma; Bronchocele.—A chronic enlargement of the thyroid gland not due to neoplasm occurring endemically in certain localities especially mountainous regions and sporadically elsewhere. The following are the chief varieties. Colloid, adenomatous, interstitial and degenerative. The cause is said to be want of iodine, but according to McCarrison it is said to be caused by fecal contamination of the drinking water.

Thyroiditis.—Inflammation of the thyroid. The inflammation of the thyroid tissue may follow acute infective disease or occur during the course of chronic infection as tuberculosis, syphilis. In acute virulent infective processes, the onset may be sudden and the local symptoms of pain and pressure may be marked and pus frequently may be formed.

ANEMIAS

BY

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Anemia is not a disease entity by itself. It is the result of a complexity of processes that occur in the body by specific agents producing specific effects. It is a symptom of a disease and not the disease itself. It is characterised by either sudden or slow onset, depending upon the cause. We are all familiar with the terms primary and secondary anemias. It is understood that secondary anemias arise as the result of the invasion of the body by an agent, which when removed, will allow the body to re-establish its equilibrium of blood constituents. When the cause cannot be discovered, we style it as primary anemia. Although so classified, each

type produces distinct group effects which we call symptoms for quick recognition of the disease. Oligemia is reduction of the total quantity of blood in the body while the relative proportions between its several constituents remain unchanged. Hydremia is a condition where the fluid portion of the blood is increased while its cellular contents maintain a normal proportion. Anemia again may affect the cellular proportions themselves. We are aware of the great increase of leucocytes in leukemia causing anemia. We are then naturally inclined to ask, while the total quantity of red blood cells are reduced, whether there is an increase in the leucocytes. If so, why? What have the leucocytes to do with the erythrocytes? This will make us pause for a moment, revolve our knowledge in our minds, and think for a time to know the definite relationship between these. The constituents of the blood, both solid and liquid, cellular and chemical, and their relative proportions are well known to every student of medicine. Our chief concern is now the red blood cells. These small cells about 7 μ in average diameter are being born daily in the bone marrow and sent out into the circulation. We are also aware of the fact that the life of a red blood cell in the body is very small and many effete and old cells are destroyed in the spleen daily, which organ though prepares these effete and unserviceable cells for complete hemolysis and destruction whereafter the reticulo-endothelial system can come into play for conserving the iron, but destroys the albuminous part of the hemoglobin. Hemoglobin is split up into hemotaidin and hemosiderin, the former devoid of iron and the latter having iron in the shape of pigment. Iron is a valuable metal to the body. It is needed for all cellular activity and for mitosis. The total quantity of iron in the body is very small. The absorption of iron is very little and if it is not conserved as it is done, the level of concentration of iron in all tissues and cells will quickly fall to such a degree as to make life impossible.

This iron that is in the form of hemosiderin is further chemically altered, by what process is still a matter of speculation, to be acceptable to the bone marrow for providing iron as hemoglobin to the new formed red blood cells, to be marshalled out into the circulation. Where this process occurs, and by what means it reaches the bone marrow are still disputed points. It is conserved and stored largely in the cells of the reticulo-endothelial system of the body, more especially the spleen and the liver, as is evidenced in extensive hemolysis produced by intensive infection of malaria causing black-water fever. The other part of the hemoglobin, the hemotaidin is an isomer of bilirubin and in which form it is handed over to the liver cells by the reticular cells, as an effete matter, a mere pigment, not any more useful to the system, and so excreted as a constituent of bile.

We are made to wonder at the magnificent arrangements of nature which economise even the dregs and try to use them to the last. If only India's population can learn lessons in economy from nature, the poverty of India would be quickly removed, its diseases will disappear and its manhood will rise to its full stature and assert its presence ringing throughout the universe.

We have known how the undertaking system of the body works to remove the undesirables in the red blood cells. If we compare the red cells to an army with a definite commission and with a definite programme, we must know how losses in this army are caused, and how filled and with what expediency. We know that the birth place of the red blood cells in the adults is the bone marrow although in intrauterine life and for some time after birth the erythrocytes are produced not only in the bone marrow but in such other organs as the liver and the spleen etc; but the main manufactory for the red-cells for all life is the bone marrow. Here it must be clearly understood that although the cells in the bone marrow could

divide when demanded and produce new cells to subserve the body elsewhere, yet the marrow tissue as a whole is limited and can be exhausted when the destruction of adult erythrocytes is excessive, so as to be incapable of producing more cells and this exhaustion of the marrow again will tell upon the strength of adult red soldiers whose members are daily reduced on the front. But before complete exhaustion and incapacity to replace the fallen ranks ensue, the marrow quickens its manufacture, by enlarging its business all over the marrow and converting every possible space to a factory for men and munitions. This process is evidenced by an alteration in the colour, consistency and cellular contents of the marrow, which is called the erythroblastic reaction of the marrow. The adult marrow is yellow, translucent and contains a large quantity of fat in fat cells which are closely approximated, the whole structure resembling in section a beautiful honeycomb. At the junctional points of the walls of these single tenements, there are a few cells as lamp posts in street corners, and it is these cells that have the potentiality of reproducing the cellular elements of the blood and replacing the lost ones, as time and occasion demands. It is these cells that multiply rapidly, confiscate the territories of fat cells, enlarge their workshops, open branches all over the country of the bone marrow, and put out well-finished, partly-finished or ill-finished articles, here the erythrocytes, into the blood stream to fill up the blanks in the totality of the red blood cells. It is these few straggling cells that have the power to proclaim martial law and command other territories in the marrow to do a certain definite type of work. If the enemy is aggressive and is destroying a large number of the army of erythrocytes, these cells quicken up, work day and night and at first produce fully formed and adult erythrocytes to fill up the loss in the blood but latter produce and drive out into circulation the immature ones such as

the macrocytes, normoblasts, reticulocytes etc., which at once form the index of activity and exhaustion of the bone marrow. If its production cannot cope with the loss, the battle is lost and the patient gradually becomes more anemic and finally dies.

I raised the question why in leukemia there should be anemia. The bone marrow is not wholly populated by the precursors of erythrocytes only. The cellular composition of bone marrow shows that the erythroblasts are tolerant to the occupation and acclimatisation in their country of their cousins, the leukoblasts, although they live apart in their own specific colonies as villagers do in India. If for any reason one colony or one type of cell becomes more prolific than another, it gradually expands its area of occupation and brings pressure to bear upon the other colonies, which then not being in a combative mood, are crowded out of existence, their members are thinned, and their gradual extinction is reflected in the representation of their progeny in countries abroad, the blood stream.

If the eosinophile colonies grow up and enlarge, we get an eosinophile leukemia, if plasma cell colonies expand, we get a plasma cell leukemia, and if all the cells take part in getting rid of their cousin the red blood cells, then one gets myelogenous leukemia and all these conditions are associated with anemia.

Experimentally, administration of benzol, trinitrol, arsenic, phosphorus, kills the tissues of the bone marrow and produce an anemia, but if the damage is not excessive, regeneration takes place to return the blood to normal level. It should not, however, be construed that in daily life anemia is produced by taking-in benzol or other poisonous products. The analogy clearly is that anemia is produced by some poison or poisons which have the same action on the bone marrow or red cells as these experimental poisons.

It is therefore clear that anemia can be produced either way; namely either by excessive destruction of red blood corpuscles or loss of blood or proportion of watery constituents in blood, in the vascular system or by destruction of the bone marrow (i.e.) either the productive capacity is attacked or the daily loss is increased.

Anemia caused by hemorrhage we shall not consider, because it is brief and is easily made good by the blood-forming tissues. Secondary anemias are generally of the nature of more or less hemolysis. Under this class come anemias caused by malaria, black-water fever, ankylostomises, sprue, septic anemias etc. So also is that produced by *dibothriocephalus*, although the type of lesions produced in the body by this worm is similar to that found in pernicious anemia. Perhaps the chemical nature of the poison or toxin is identical in both cases. Excluding the secondary anemias for which a definite cause will be easily found upon careful examination, we come upon chlorosis and pernicious anemia, the former is easily disposed of as it is a disease due to faulty iron metabolism, the breakage in the link occurring either in the combination of iron with hematoporphyrin to form hematoxin which then combines with globin (a protein) to produce hemoglobin, or in the defective formation of globin for combination with hematoporphyrin or in the defective assimilation of iron and its non-availability to form hematoxin when the other constituents are present. There is also a view that iron only acts though stimulating the production of hemoglobin and does not actually take part in its formation. These require further experimental evidence to arrive at conclusions.

(To be continued.)

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Abstract

INDICATIONS AND CONTRAINDICATIONS FOR TONSILLECTOMY.

BY

JEAN DUPLESSIS, M. D., (Chicago).

A great deal of uncertainty seems to exist as to when the tonsils should and when they should not be removed. In any given case it is often possible to obtain a variety of opinions from experienced practitioners. Some advise tonsillectomy, some caution against it, while others prescribe watchful waiting.

This state of affairs is really unnecessary, because there is available, at the present time, enough definite knowledge about the tonsils to justify a set of rules which will apply in the majority of cases. Such a set of rules is best formulated under the headings of indications and contraindications for tonsillectomy.

INDICATIONS.

1. **Hypertrophy:**—If the tonsils are sufficiently enlarged to interfere with breathing or with swallowing, or if by their size and weight, they decrease the flexibility of the palate, thus thickening the speech and impairing the hearing they should be removed.

Hypertrophied tonsils occur most frequently during childhood.

2. **Recurring Acute Tonsillitis:**—Repeated attacks of acute tonsillitis are merely exacerbations of a chronic infection, and tonsillectomy is followed by prompt relief.

Occasionally a descending inflammation from the naso-pharynx or an ascending inflammation from the laryngo-pharynx may give rise to a sore throat, even in the absence of the tonsils, but the symptoms are always mild and transient.

Recurring acute tonsillitis is found frequently in adolescents and in young adults. It should, of course, be differ-

entiated from septic sore throat, which is usually milk-borne and which may be sporadic or epidemic.

3. **Chronic Tonsillitis:**—Chronic tonsillitis usually develops as a result of repeated acute attacks, yet many adults have diseased tonsils without any history of acute tonsillitis. This signifies either an essentially chronic type of infection, or a failure on the part of the patient, to recall the sore throats of early life.

Although the enlarged tonsils of children are often chronically infected, the worst chronic infections occur in the small, embedded tonsils of adults and middle-aged patients. The crypts of these tonsils are often occluded by scar tissue resulting from previous inflammatory storms, from cauterisation or from incomplete tonsillectomy. The cryptic material thus retained soon decomposes, and serves as a soil for infection, which promptly spreads to the follicles.

The usual cursory inspection of the throat, with the aid of a tongue depressor, is not sufficient to detect the absence of focal infection. A pillar retractor should be used for drawing the anterior pillars aside to determine the existence of adhesions, and to bring the openings of the crypts into view. The cryptic material can then be expressed by careful compression of the tonsil or by means of suction tube. The material varies from a milky secretion to solid, cheesy plugs, the size of a pin-head to that of a pea. Moore points out that, if this material contains pus, in addition to detritus and bacteria, the latter should be considered virulent and capable of producing secondary foci.

Barnes has shown that, in many cases, the surface of the tonsil may appear relatively normal, while the deeper portions of the crypts are widely distended with septic material. Such cryptic retention can be detected by digital palpation and by the transillumination method of French. The color of normal tonsil tissue under transillumina-

tion is a uniform bright amber. Detritus in the crypts, without pus, is revealed by pink, while a bright red rose color indicates pus.

Transillumination should also be applied to the lingual tonsils and to the infratonsillar lymph nodules in the laryngo-pharynx. In adults these structures often harbour as much necrotic material and pus in their crypts as do the faucial tonsils. The treatment consists of curettage or of surgical removal.

In most cases of chronic tonsillitis, the border of the anterior pillar shows a red line of congestion. Such injection of the pillar is reliable evidence of infection back of it.

Tonsillectomy is indicated in chronic tonsillitis whenever there is extensive retention of cryptic material and especially if this material contains pus.

4. Paratonsillar Abscess: Quinsy is a streptococcus infection, with pus localised between the tonsil and its bed; the term peritonsillar abscess is therefore a misnomer. As a predisposing factor there is always some obstruction to the drainage from the crypts, especially those in the supratonsillar fossa and those back of the anterior pillar. This obstruction is usually due to adhesions following repeated tonsillitis.

Every attack of quinsy leaves more scar tissue in its wake, hence the tonsil becomes a worse focus of infection and the abscess formation has a tendency to recur. The history of even a single attack of quinsy is, therefore, an indication for tonsillectomy.

Quinsy occurs most frequently in young adults with submerged tonsils.

5. Tonsil Stumps: Rhoades and Dick have shown that fair-sized tonsil remnants are present in the throats of a surprisingly large number of adults who have undergone tonsillectomy, and that these stumps harbour more bacteria per gram than do tonsils, removed the first time. Furthermore

the secondary foci, which persist after such incomplete tonsillectomies, improve remarkably when these stumps are removed. All statistics dealing with the results of tonsillectomy should therefore be considered with these facts in mind.

6. Halitosis: Foul breath is frequently due to the decomposition of the cryptic contents. The characteristic odor is readily absorbed by a piece of blotting paper pressed on the tonsils. These patients are most grateful for what tonsillectomy does for them.

7. Cervical Adenitis: The lymphatic vessels from the tonsil drain into the anterior chain of the deep cervical nodes, the most palpable one of which is the so-called tonsillar node, which lies at the anterior border of the sternomastoid muscle, about three-quarters of an inch below the angle of the jaw and must not be confused with the posterior submaxillary node which also drains into it, and which lies directly in front of it, just under and anterior to the angle of the jaw. If the tonsillar node alone is enlarged, the source of the infection is the tonsil; but if the submaxillary node is also involved, additional infection is present.

The cervical lymphatics drain into the supraclavicular nodes and through them, tuberculous and other infections may be conveyed from the tonsils to the pleura and thence to the apices of the lungs.

After tonsillectomy, the enlarged nodes subside completely, unless extensive structural changes are present. Even in the tuberculous adenitis there is a marked improvement and often a complete cure after the source of tubercle bacilli and pyogenic cocci is removed by tonsillectomy.

8. Diphtheria Carriers: Virulent Klebs-Loeffler bacilli can be obtained from the tonsils, in a certain number of cases, months after recovery from diphtheria. Local treatment is ineffective, and these carriers can be pre-

vented from spreading diphtheria only by tonsillectomy and adenoidectomy.

Diphtheria and other acute respiratory infections occur more commonly and more severely in children with diseased tonsils and adenoids.

9. Neoplasms: The removal of benign malignant tumors of the tonsils should always be accompanied by tonsillectomy. Angiomas are first obliterated by electrolysis, so as to avoid undue hemorrhage. Metastases in the cervical glands are simultaneously removed in suitable cases of tonsil carcinoma; but sarcoma responds so readily to radium that surgery is not indicated.

10. Goiter: Since the endocrines are so profoundly affected by toxins, focal infection should be looked for in every case of toxic goiter. Infected tonsils are frequently found, and their enucleation is followed by improvement in most cases. The removal of focal infection before or after partial thyroidectomy will go a long way toward preventing the recurrence of hyperthyroidism.

11. Systemic Infections: The tonsils may appear innocent and yet be the portals of infection in systemic disease. Such tonsils should be removed whenever focal infection can be excluded from the teeth, sinuses, nasopharynx and ears. Foci in the gastro-intestinal and in the genitourinary tracts are more often secondary to primary foci in the upper orifices than is generally supposed.

The localisation of secondary foci depends upon the character and the virulence of the bacteria, and upon the degree of resistance in the various tissues. The most frequent sites are in the joints, muscles, heart, nerves, kidneys, skin, gastrointestinal and genito-urinary tracts.

A chronic toxic state is often produced by focal infection. It is characterised by debility, anemia, digestive disturbances and neurasthenia. Some cases have an evening rise of temperature and sleep-sweats.

Toxic patients recover promptly after tonsillectomy, if the physical examination is otherwise negative.

If the secondary foci have become well established, they tend to perpetuate themselves, even after the removal of the primary foci. The eradication of focal infection should, therefore, be an early step, instead of a last resort, in the treatment of systemic disease.

12. Other Lesions. Calculosis, keratosis, tuberculosis, Vincent's disease and syphilis usually damage the tonsils to the extent that they should be removed. Tonsillectomy should be preceded by local treatment in Vincent's disease and by specific general treatment in syphilis, until the throat lesions subside.

CONTRAINDICATIONS.

1. Normal tonsils.

2. Organic Disease, making the patient a poor surgical risk.

3. Fever. A temperature of one degree or more above normal, from any cause.

4. Acute Tonsillitis. Tonsillectomy, in the presence of acute inflammation, may give rise to serious hemorrhage, cerebral abscess, septicaemia or delayed convalescence.

The exposure of the tonsils to ultraviolet rays, for a few days before tonsillectomy, will allay the inflammation sufficiently to prevent these complications. This procedure should be used as a routine in both acute and chronic cases.

5. Hemophilia:—This phenomenon is comparatively rare, but the family and the personal history of every male should, nevertheless, be investigated for evidence of repeated or prolonged hemorrhage.

6. Delayed Coagulation:—Chronic focal infection is frequently associated with delayed coagulation of the blood hence no patient should be subjected to tonsillectomy unless the coagulation time is normal. If it is

prolonged, the administration of calcium salts for a week or two will usually correct the defect, unless hemophilia is present.

A tendency to excessive hemorrhage usually accompanies profound secondary anemia, pernicious anemia, leukemia, arteriosclerosis, jaundice, and purpura hemorrhagica. It also occurs just preceding and during menstruation.

7. Status Lymphaticus:—Careful examination should be made, in all suspected cases, for enlargement of the thymus and for other symptoms of status lymphaticus.

8. Anomalous Blood Vessels:—The ascending pharyngeal or the internal carotid artery may be misplaced, enlarged tortuous or even looped. A pulsation and sometimes a bulging can then be detected in the posterolateral region of the pharynx. Although these conditions are rare, a careful inspection and palpation for vascular anomalies should precede every tonsillectomy.

In the absence of anomalies, Groves states: "The danger of wounding the internal carotid is quite mythical, since the vessel lies three-quarters of an inch away from the bed of the tonsil, the other side of the pharyngeal wall".

CONCLUSION

All the above indications and contraindications should be carefully considered before a decision to perform tonsillectomy is made in any given case. This will result in fewer disappointments, and this operation will soon gain its rightful place as a reliable procedure in the treatment of pharyngeal and related systemic disorders. (*Clinical Medicine and Surgery* December 1929).

Notice:—The secretary All India Medical Licentiate Conference informs the undersigned that the proposed Conference at Cuttack has been indefinitely postponed.

V. Rama Kamath.

Notes on Treatment of Diseases.

N.B.—These notes are intended to supplement the treatment given in ordinary text books and neither to be expected nor possible to be exhaustive.

1. **Anorexia.** Acid HCl. Dil. $\frac{3}{4}$ i. Tr. cinchona co $\frac{3}{4}$ vi; a dessert spoonful well diluted with water three times a day after meals. (*Hare*).

2. In children, orexin (Höchst) is better than any other stomachic and used in neurasthenia and anemia.

3. do. Vigintol is good.

Anuria. Particularly in old persons and after shock, adrenalin gives relief. (*Sajous*).

Apoplexy. To prevent the attack, sodium bromide, chloral or veratrum viridie: croton oil m. i in a small quantity of sweet oil to be placed at the root of the tongue or $\frac{1}{6}$ grain of elaterium. The head should be kept high and feet low. No drugs to be given for 3 weeks, the time required for the clot to be fairly fixed unless cerebritis occur when aconite should be pushed on if the pulse is tense and calomel given in $\frac{1}{4}$ grain doses. After the clot has become fixed, potassium iodide may be given for absorption. (*Hare*).

Appendicitis. Thyroid gland 2 grains every 3 hours at first, then three times a day. Milk diet with common salt added. Hot water fomentation. (*Sajous*).

2. As a diagnostic measure and as treatment in chronic cases, novoprotein injection. 0.2 c.c. on alternate days is good. (*Practical Medicine* 1926).

3. Palpation should be done as little as possible: stomach to be washed out and bowels cleaned by enema which must be given every night. Nothing to be given except water until the bowels move. It will take 14 to 21 days for the bowels to move naturally. Ice to be applied over the painful part if the temperature is over 101° F and poultices and

hot fomentations if the temperature is below 100° F. After the bowels move, fluid diet should be given for a week. (*Tildon on Appendicitis*).

4. In the beginning for relief of pain, hot fomentations and poultices are good. When the symptoms have become more localised in the region of the appendix, application of cold or vice bag is better (*Modern Medicine*).

Arythmia:—Functional bradycardia disappears after giving 2 m. g. of atropine but organic bradycardia is not influenced by it. Changes of posture from recumbency to sitting causes changes in functional bradycardia as in functional tachycardia, but not in organic affections.

2. **Arythmia or cardiac hurry:**—Tinct or extract convolvulus is as useful as spartine sulphus.

Arterio Sclerosis:—With high blood pressure-nitrite of mannitol in 1 grain doses is the best; next comes erythrol tetra-nitrate in $\frac{1}{2}$ grain doses. (*Rudolf*)

2. For that caused by fermentation of food in the intestines, magnesium perhydrol 25% three times a day (*Merck*).

3. **Adrenal type:**—Spirits of nitrous ether or chloral hydras or small doses of sodium bromide are indicated. Strychnine, digitalis or Iodine should not be given.

4. **Aotolytic type:**—Aresenic (Fowler's solution) m. 3, and ergotine, or coal tar products are indicated. Iodide, Thyroid or Digitalis should not be given though Iodide may be tried in the latter stage.

5. **Denutrition type:**—Thyroid or Adrenal with Pancreas is useful. Nitro-glycerine, Bromide, Chloral or Digitalis should not be given (*Sajous*).

6. **In ordinary cases:**—Ichthalbin (Ichthyol albuminate), one tablet three times a day or Iodotrophen in tablets twice a day. (*P. M.*)

7. In the evening light meals or no meals. Calcium salts, atropine, Venesection, Sodium Nitrite, Hippurates, cinnamom oil m. 2, dissolved in absolute alcohol diluted with water, diathermy, and sulphur by intra mus-

cular injection (one cc. of the solution containing 0.0001 gram of sulphur) into the gluteal region followed by a second injection in 2 or 3 days and afterwards at longer intervals, the dose gradually rising to 5 or 10 c. c. 4 to 5 injections are required. The injections may be painful but there is no harm. (*L. W.*)

8. Thyroid extract 1 grain twice a day. Corpus Luteum after menopause; Digitalis, morphia $\frac{1}{8}$ to $\frac{1}{6}$ grain by injection and sodium salicylate by intravenous injection.

9. Iodide of Potassium with Tr. Nux Vomica is good in asthenic series. (*L. W.*)

Arterial tension:—Sodium nitrite 1 to 2 grain doses in cachet is the best remedy. In cases of weak heart with high arterial tension, strophanthus is better than Digitalis, as it does not act on the vascular system unlike digitalis. Sodium nitrite of B. W. & Co. is good.

Arsenical poisoning or arsenic dermatitis. Sodium Thiosulphate by intravenous injection is good. 5% (10 c. c.)

Arthritis:—This and skin diseases often replace one another. Sodium salicylate to be given intramuscularly or intravenously. For intramuscular injection grains 10 in 2 c. c. of normal saline solution and for intravenous injection 5 grains in 4 c. c. no contraindications or complications. May be repeated every 4th or 5th day. (*I. M. G.*)

2. In Rheumatoid arthritis. Potassium iodide is good. (*L. W.*)

3. In chronic cases, emetine hydrochloride $\frac{1}{3}$ grain by deep hypodermic injection on alternate days or daily if the case is serious. After the 3rd injection, it may be given intravenously and then must be kept up for 3 weeks when the injection may be given twice or thrice a week and weekly for 2 months. If there is a muscular weakness treacococylite of iron to be given bi-weekly by intravenous injection, Emetine Bismuth Iodide 3 grain doses at midnight for

10 days, calcium phosphate 4 grains and alcresta ipecac 6 grains to be given in capsules 3 times a day before meals. This relieves constipation also.

Arthrites Deformans:—Thyroid gland 15 or more grains 3 times a day for weeks give good results. (*Harrover*).

5. In children including Stilt's disease. Thyroid gland is good (*I. M. G.*).

6. Gonorrhoeal Arthritis, Fibrolysin is good.

7. Rheumatic Arthritis, Pituterin is good.

8. In rheumatic polyarthritis, an ointment made of Ichthyol powder 15 parts, chloroform 10 parts, Methyl salicylate, menthol, vaseline and lanoline 20 parts. Ext. conii Macul 4 parts, Aqua distillata 9.5 parts, is good.

Notes on Diagnosis, Therapeutics and other Medical Subjects

Bacteriophages.—The first thing to remember about a Bacteriophage is that it is a living thing. A young Bacteriophage grows and when it comes to maturity it subdivides. The young ones grow and divide again and again and so on either to eternity or until they die or are killed. They may meet disinfectant or they may meet a high temperature which will kill them and they may freeze, and some of them may die when they are frozen and so on, but to allow this growth they need to be fed. They can do nothing without nourishment. To obtain that nourishment they have only one source and that is the protein of bacteria. The proteins of bacteria vary in their digestibility and their resistance to a Bacteriophage attack and different strains of Bacteriophages differ in their capacity to attack and to dissolve and to eat and digest different kinds of Bacteria.

Some strains of Bacteriophages dissolve and feed on Vibrios, other strains will attack various streptococci, other strains will attack the colon bacillus, but ordinarily the Bacteriophage which lives particularly on one bacillus, will find individual bacilli whose resistance is greater than the resistance of its neighbours. That bacilli may escape; in fact in nature there is a constant fight between Bacteriophages and Bacteria for survival of the fittest. The more often they meet each other, the more practice they get and the more effective they become. For instance if a Bacteriophage which is adapted for cholera vibrios is fed constantly on cholera vibrio and for a long period of time, the oftener it gets fed the more effectively it dissolves and kills cholera vibrios, but a cholera vibrio, if it survives an attack once, survives more easily the second time and the more practice at surviving the attacks of Bacteriophage it has, the more expert it will become at surviving. One strain of cholera bacilli which has been attacked twenty times or a hundred times by a particular strain of Bacteriophages, if the cholera vibrio has survived every time, will have so much practice at escaping that no Bacteriophage is ever likely to attack it successfully. This is particularly where the cholera Bacteriophage danger comes in.

Professor D'Herelle recognises this danger and although he has in his laboratory active anti-cholera bacteriophages which have been in constant training for 10 years, still he says some of the Vibrios sometimes escape. We dare not yet use Cholera Bacteriophages for general use because these escaped strains of cholera vibrios would give us a cholera disease from which a human patient would never be able to recover.

Naturally these Bacteriophages which are not 100% efficient against the strains for which they are trained are not put up for sale by Professor D'Herelle's laboratory.

The differential diagnosis between chronic gastritis, gastric ulcer and cancer:—The diagnosis may be made with reference to the following conditions (a) the age (b) duration of symptoms (c) acid condition (d) the character of pain (e) the location of pain (f) the onset of pain (g) the relief of pain (h) nausea and vomiting (i) nature of vomit (j) the effect on bowels (k) appetite (l) metabolism (m) microscopic appearance (n) general remarks.

Chronic Gastritis:—(a) 30 to 40 years (b) one year or so (c) Hcl. normal butyric and lactic acids in excess (d) distress after eating (e) epigastrium and often at sternum (f) directly after eating (g) by avoiding eating (h) often in morning or soon after eating (i) glairy mucus, watery fluid in the morning, indigested food later in the day (j) constipated (k) fickle (l) often weight decreases (m) epithelial shreds and cells and numerous bacteria (n) tongue badly coated, much distressed with gaseous and sour eructation.

Chronic Ulcer:—(a) Under 30 years (b) periodic for many years (c) Hcl is increased (d) gnawing, often sharp severe and paroxysmal (e) epigastric and pyloric (f) between meals (g) by taking alkalies or vomiting (h) frequently long after eating (i) food, blood in 40 to 53 per cent of the cases (j) constipated or unaffected (k) often good (l) little loss of weight or may vary (m) sarcinae (n) tenderness on pressure, intermittent pain relieved by eating, vomiting of clear blood, are common symptoms.

Cancer:—(a) Over fifty years (b) three years or less (c) Hcl. usually absent and lactic acid present (d) dull, heavy and boring (e) epigastrium (f) after meals (g) by fasting, (liquid meals) and vomiting (h) often first and most common sign (i) coffee ground (j) diarrhoea quite common (k) poor and loss of appetite are early symptoms (l) loss of weight progressive (m) Oppler-Boas in considerable number (n) dull pain, vomiting of undigested food, long after ingestion often a day or two and po, absence of free Hcl; coffee ground

vomit; occurrence of Oppler-Boas are pathognomonic.

Ephedrin:—The by-effects of this drug which is being used largely at present are (1) palpitation at the epigastrium often with tremor in the hands (2) spasm of the vesical sphincter often accompanied by diuresis (3) restlessness, muscular twitching, cramps in the legs (4) temporary diminution of sex desire and power (5) an unpleasant taste imparted to tobacco if used within several hours after a dose of ephedrin (*C. M. S.*)

Cardiac stimulant:—The best cardiac stimulant is glucose given intravenously, then comes adrenalin, digitalis; strychnine and caffen are of little or no use (*A. J. M. A.*)

Vitavose:—(Squibb & Sons) is the sugar (malted) which contains Vitamin B.

Physiological saline solution:—contains 85 percent of sodium chloride.

Venereal Diseases:—In our article under this title last month it will be observed that in Course "A" Sulfarsenol and Benzo-Bismuth combined treatment, there are really two courses of Benzo-Bismuth of 10 injections each with a period of twenty four days between.

In some cases however, especially where arsenic in any form disagrees, or where idiosyncrasy requires lesser doses of Sulfarsenol to be given, it may be preferable to give as a single course fifteen injections of Benzo-Bismuth before interrupting the Bismuth treatment. In that case the Benzo-Bismuth may be repeated twice weekly up to the 68th day, then after 10 days interval resumed on the 78th day, twice weekly for five weeks more.

Similarly in Course "C", there is usually no objection to a continuation of the Benzo-Bismuth after the 36th day, twice weekly upto the 68th day.

Course "D" being particularly suited to nerve cases, may very reasonably have two more injections of Benzo-Bismuth, say, on the 47th and 51st days. That would complete

the usual course of 15 injections of Benzo-Bismuth.

Course B: We omitted to give details of course B because they are the same as Course A upto the 57th day, and here too the discretion of the physician must come in to decide whether the Benzo-Bismuth will be stopped at the 10th injection or carried on for $2\frac{1}{2}$ weeks more, when 15 injections of Benzo-Bismuth will have been completed.

GENERAL INSTRUCTIONS FOR THE USE OF COMBINED BENZO-BISMUTH WITH SULFARSENOL COURSES.

I

PRIMARY CASES WITH NEGATIVE SERUM REACTION.

- (a) Course A.
- (b) No treatment for five weeks.
- (c) Potassium iodide for three weeks. (grs. 15 a day for the first week; grs. 21 a day for the second and grs. 30 for the third).
- (d) Course A.
- (e) Suspend all treatment but test the blood serum every three months during the first year after stopping treatment and every six months during the second year, the test at the end of the first and second year respectively being preceded by a provocative intravenous injection of 0.45 grms. of '914'.

II

PRIMARY CASES WITH POSITIVE SERUM REACTION

- (a) As in I (a) to (d).
- (b) No treatment for ten weeks.
- (c) Potassium iodide for three weeks.
- (d) Course C.
- (e) Suspend treatment and observe patient as indicated in I (e) above.

III

CASES WITH CLINICAL SIGNS OF SECONDARY SYPHILIS

- (a) As in II (a) to (d).
- (b) No treatment for ten weeks.
- (c) Potassium Iodide for three weeks.
- (d) Course C.
- (e) Suspend treatment and observe patient as indicated in I (e).

IV

CASES WHICH ARE LATER THAN SECONDARY

- (a) Course B.
- (b) Potassium Iodide for three weeks.
- (c) No treatment for ten weeks.
- (d) Course C.
- (e) Potassium Iodide for three weeks.
- (f) Repeat (c) to (e) twice.
- (g) No treatment for sixteen weeks.
- (h) Course C.
- (i) Potassium Iodide for three weeks.
- (j) No treatment for eighteen weeks.
- (k) Course C.

Treatment may have to be prolonged considerably beyond this because the serum tests show that it is particularly difficult to eradicate syphilis discovered to be still active some years after infection.

V

SYPHILIS OF THE NERVOUS SYSTEM

- (a) Course D.
- (b) Potassium Iodide for three weeks.
- (c) No treatment for three weeks.
- (d) Repeat (a) and (b).
- (e) No treatment for eight weeks.
- (f) Repeat (a) and (b).
- (g) No treatment for twelve weeks.
- (h) Repeat (a) and (b).
- (i) No treatment for fourteen weeks.
- (j) Repeat (a) and (b).

The above treatment is controlled by periodical examinations of the cerebro-spinal fluid.

N.B.—The reasons why Professor Drouin and his pupils prefer Benzo-Bismuth.

1. Continuous effect can be maintained by two injections per week when given intramuscularly (Bismuth should never be given by intravenous route).
2. No deposits are formed in the muscles, therefore there is no danger of toxic doses being suddenly absorbed at a later stage.
3. All the Bismuth injected enters the circulation within two days. Excretion is nearly completed on the third day and complete by the fourth day, therefore the amount of Bismuth acting on the patient can be known and calculated.
4. The amount of Bismuth absorbed from injections of insoluble Bismuth compounds cannot be accurately estimated.

Sulfarsenol.—The reasons why Sulfarsenol is an arsenical remedy of choice over other arsenical compounds can be gathered in the following statement.

606 is an excellent remedy at least it used to be, since now we have better—but the drawback of its high toxicity, the danger of arsenical poisoning the trouble of preparation, fasting, purging, the trouble of after care, the general inconvenience of the remedy, has determined its comparative disuse.

914 is also a good remedy when given intramuscularly; but its antisyphilitic effect depends upon its interaction with certain tissues of the body and it causes severe pain if given intramuscularly. Intravenous dose of 914 is half eliminated before it begins to take effect.

There are no objections at all against Sulfarsenol. It can be given intravenously, into a muscle or under the skin without serious pain.

The toxicity of Sulfarsenol is less than quarter that of 914 or 606. The curative results are better.

It has a better antisyphilitic effect when given under the skin or into a muscle, and these are the best ways of giving it for this trouble. It can be given so without pain and without the fear of an abscess. In Syphilis the slow sustained effect of intramuscular or subcutaneous injection is more effective.

Against Gonorrhoea complications Sulfarsenol is usually given by the intravenous route with complete satisfaction.

As regards new and untried products, whether they are imitations of the one or other, one should not like to rely on them until after extensive tests by experts. The success or failure of a treatment is of too great a notional importance for our experimenting.

When considering the effects of an arsenical remedy against Syphilis, it is highly necessary to keep in mind clearly two of the outstanding actions of such remedies.

1. The ordinary medicinal effects of Arsenic on the Human System.
2. The specific selective action of the particular compound under examination on the parasites to be killed.

In particular, it is essential to keep those two actions individually and separately in mind, at those times when new and otherwise untried samples of products are offered for "trial" to general practitioners.

(1).

- (a) Any arsenical compound can cause a temporary alleviation of the symptoms of Syphilis.
- (b) Arsenic by itself so stimulates the nutritive functions, particularly of the skin that many lesions disappear under its action merely because of this stimulated nutrition.
- (c) Appetite is improved and the patient feels much better.
- (d) Anemia is reduced and the patient appears much improved.
- (e) The Wassermann reaction may be temporarily altered by any arsenical treatment, even by liquor Arsenicales, B.P.

5L
LM24, N30MP
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(2).

- (a) When the selective action of the remedy on the protein of the parasite is sufficient and effective, a *permanent* reduction of the Wassermann reaction can be achieved.
- (b) The permanence of this reduction of Wassermann's reaction can only be determined after years, with repeated Wassermann tests of the treated patients.
- (c) To adopt a new arsenical preparation for the treatment of Syphilitic patients without prolonged tests should be a culpable offence.
- (d) It has taken ten years continued use for Sulfarsenol to determine the fact that it is a very effective arsenical eliminator of *Treponema Pallida*, with the longest lasting "Wassermann Negatives" in support of its use.

News and Comments.

Next to Mahatma Gandhi, there seems to be yet another person who could defy the legislature, and that is the Registrar of the Madras Medical Council. It looks as if it suits the convenience of the Government if such defiance is connived at, if not ignored. Reference has often been made in these columns and elsewhere about the various acts of omission by the Registrar such as in the matter of not compiling and publishing the Medical Register etc., and no action has been taken either by the Council or by the Government to set right matters. The readers know that there are at present three vacancies in the Medical Council to be filled up. As per Rule (2) governing the elections, within 60 days of the date when a vacancy will occur, in the ordinary course of events, a precept should be issued to the electorates concerned apprising them of the said vacancy and requiring them to elect a substi-

tute within a date mentioned in such precept. The vacancies have occurred but no such precept has yet come out from the Registrar's Office; nay, he would not even reply to the enquiries from at least one registered practitioner who requested the Registrar to let him know about one such vacancy.

Rules under Section 24 (1) (ii) for the Election of the Vice-President of the Medical Council clearly mentions that "the Vice-President of the Council shall be elected by ballot at the first meeting of the Council in each calendar year." Yet no such election was held on the 10th March 1930, the day of the first meeting of the Council for the calendar year.

Perhaps the Government member concerned with Medical Registration is now busy to catch people who are out to disobey the Salt Act and scarcely finds time for anything else, though the principle involved in defying legislature is the same, whether it is violation of salt law or any other law. Attempts will be made that civil disobedience regarding the Madras Medical Registration Act may catch the eyes of the Honourable the Home Member.

We understand that the following resolution has reached the Secretariat, Fort St. George from the Office of the Registrar, Madras Medical Council.

"The Council is of opinion that the practice of getting the certificates granted by private medical practitioners countersigned by practitioners in Government service is against the principles and spirit of the Madras Medical Registration Act, and recommends to Government to put a stop to this practice."

This is one of the resolutions of which notice was given for the moving of the same in the Madras Medical Council by Dr. V. Rama Kamath and referred to in these columns in the November issue.

An All-India Medical Council is no more a matter for speculation. Thanks to Col. Needham, that all powerful gentleman, who has been able to do more than what was expected of him if he were the once contemplated Commissioner to the General Medical Council to control and supervise Indian University Medical Education. Good days are dawning for the Independent Medical profession in India, at least to those who though registered in the Provincial Councils, could not function as medical practitioners with equal rights and privileges contemplated in the Medical Act, and which are denied to them by the executive orders of the self same Government who passed the Medical Registration Act. The time when these acts were passed by the various provinces were quite different from what they are now. Our patriots who are fighting for equal rights and Dominion Status will, we hope, see that the medical practitioner in the would-be Indian Dominion will enjoy equal rights and privileges as is the case in other civilised countries. We trust our elders in the medical profession will take advantage of the opportunity now before them and lift those below them so that in the All-India Medical Register, there is only one group of practitioners and not three as is the case now in the Provincial Medical Registers. Let us at least hope for the best.

Those who do not possess the University qualifications should bestir themselves and be vigilant. In the old once contemplated all India Medical Registration Act which could not be introduced in the Legislative Assembly on account of the opposition from the Provincial Ministers, it was said there was no provision to include those without University qualifications in the All-India Medical Register and we fear that in case the practitioners who are now in the 3rd group of provincial Medical Registers do not agitate and bring to the notice of our politicians their disabilities in

time, those in the 3rd group of the Provincial Medical Registers will be left off from the All-India Register. These practitioners should realise at once that even a most loving mother forgets at times to nurse her baby unless the baby cries and continues to cry until it is fed. Will these practitioners strike the iron when it is hot? They will not only make a noise and rouse even those who are asleep but will turn their metal very easily to the All-India standard. The General Medical Council who now refuse to recognise the Indian University qualifications did admit and enter in the British register in 1858 soon after the Act was passed, medical practitioners who did not undergo any course in any school or college or faculty but who merely made a declaration that they were practising as medical practitioners before a certain date. The practitioners now registered in the 3rd group in the provincial registers can certainly stand the test of expediency that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners in this country.

A representative of "The Medical Practitioner" is now touring in the southern districts of this Presidency to get 1st hand information from medical men both in service and private practice about subjects affecting them in the exercise of their profession. One of the well-meaning Government Doctors who appreciated the services of The Medical Practitioner, told our representative amongst other things, "Let the Editors be fair to Government men also". We refer this Doctor and many like him to our Editorial "Ourselves" in the first issue of The Medical Practitioner and we shall reiterate what we said regarding the policy of this journal viz. ".....The scientific aspect of medical relief, concerning the treatment of diseases is chiefly and wholly dealt with in other journals. The object of the journal under reference is to devote a good part of it to medical politics for the regulation

of medical relief. In this province, medical relief is given by officers paid by government, local boards and municipalities, mission doctors and rural medical practitioners who are subsidised by Government, and private medical practitioners. Each of these agencies is required and useful in its own way. Each has got its own jurisdiction and it is our business to define the limits of each and see that the limits of one are not transgressed by another. We wish well every branch of medical relief and will ventilate the grievances and malpractices of Government Officers, without fear or favour as we do those of private practitioners and others....."

We are quite conscious that medical men in service have as many or perhaps more grievances requiring solution than those in private practice with the additional disadvantage that they cannot write or talk about their grievances however legitimate or modest they may be. The younger generation in service are not perhaps aware that the senior Editor of the Medical Practitioner belonged to the Provincial Service of this Presidency and retired as the Sanitary Commissioner of Travancore and hence the interests of state-paid doctors in this province both in the curative as well as preventive aspects are quite safe, and after all we wish the Government Doctors to realise that after their 55th year and at times earlier, if they leave the service, they are as good independent medical practitioners as anybody else; nay, there are tangible proofs that the Independent Medical Profession has been very liberal in their views of leadership and did not make any distinction between private Doctors and Government Doctors; if examples are wanted, we can show them Dr. C. B. Rama Rao and Dr. S. Rangachari whom the independent medical practitioners belonging to the South Indian Medical Union chose as the presidents of the Union.

In our March issue, we expressed our regret that in the general discussion of the Provincial Budget, none of the members of the Legislative Council spoke about medical administration. We are authoritatively informed that a suggestion was made to the Executive Committee of the South Indian Medical Union by a practitioner that it might be desirable that the Union invited the members of the Legislative Council or at least a few representatives of the several sections in the Legislative Council to meet the South Indian Medical Union so as to discuss ways and means to regulate the medical relief and to persuade the Government to entrust the responsibility of medical relief to the Independent Medical Profession as is the case in other countries and to explain to the members of the council the various disabilities the independent medical profession was labouring under on account of unhealthy and unequal competition between the state-paid and private practitioners. It is unfortunate that the South Indian Medical Union did not lead as was expected of them and show an example to their brethren in the mofussil. In these days of democratic system of government, nothing could be achieved and nothing gained unless there is persistent agitation.

The South Indian Medical Union or more correctly the Executive Council of this Union have passed the following resolutions:—

- (i) The South Indian Medical Union (Madras) welcomes the decision of the General Medical Council of Great Britain withdrawing the recognition of the degrees of the Indian Universities as this enables the country to develop medical education in India on lines best suited to Indian conditions, without being hampered by the dictates of the General Medical Council of Great Britain.

- (ii) The South Indian Medical Union requests the Government to remove the disabilities of medical graduates of Indian Universities consequent on the decision of the General Medical Council withdrawing recognition of Indian degrees.
- (iii) The South Indian Medical Union requests the Government of India to take early steps to establish a General Medical Council in India to control and develop medical education in India.

The Honourable the Minister for Public Health said in the course of his reply to the question raised on the floor of the Legislative Council on or about the 25th ultimo regarding Indianisation or provincialisation of some appointments in the teaching institutions that calling for applications by advertisement did not mean that the claims of those already in service would not be considered and that if the Government could get competent people for smaller pay, the government would gladly have them. Neither the Minister nor the members of the Council seem to be aware of the fact that the advertisements appear in papers outside India and that is in Great Britain. How could anybody in India know of such advertisements and how could those already in service apply unless they are asked to do so either by departmental circular or advertisement in Indian newspapers.

What is the need for these advertisements? Every year, Government is spending large amounts towards study leave and many have returned with special and foreign qualifications. The Government could very well choose from amongst these, Professors to teach Anatomy and Physiology. As for Pathology, the acting incumbent cannot be said to be wanting. He is a B. A., BSoSc. and an M. D.

It will not be out of place also to point out that there is hardly any

justification to appoint a wholetime Professor for Medical Jurisprudence.

* * * *

Major General Megaw was given a farewell dinner on the 20th ultimo on the eve of his departure to Delhi. Usually such dinners were organised by servicemen. The Provincial and the Indian Medical Services always and exclusively participated in such functions and there were after dinner speeches which concerned none except the host and the guests. On the 20th night, it was a pleasant surprise to see a few private practitioners mixed with servicemen and there were as many few doctors belonging to the subordinate service. State-paid practitioners and private practitioners were never before thought a compatible mixture and much less the addition of Sub-Assistant Surgeon practitioners. The function of the 20th ultimo proved that such a mixture was not only possible but also salutary. Evidently the new elements were thought of rather late or else there would have been larger numbers representing them. Those who heard the farewell speech of the guest after dinner could without much difficulty deduce that this happy mixture was perhaps due to a suggestion from the host himself. There were conversations before, during and after dinner but no speeches, and it looked as if "no speeches" was a condition for the acceptance of the invitation by the host. Is this nervousness or modesty? Whatever it is, the function went off smoothly and was a grand success. The organisers deserve all praise. Everything was arranged in a systematic way and it was a grand sight to see medical men so seated as to indicate their seniority and status, the only noticeable exception being that the importance of the Public Health Department was not so very indicative. The Honourable Minister of Public Health presided over the function by previous arrangement and exceptions were made regarding him and the host, and

both made short speeches. The Minister congratulated the Madras Government that their choice in the appointment of Major General Megaw as Surgeon General was appreciated by the Government of India who could find in the Major General the fittest person to occupy the Office of the Director General of Indian Medical Service. He added that it looked to him as if the touch of Madras added greatness to the people. The appointment of two successive Surgeons-General of Madras as Directors General of The Indian Medical Service was the example he could quote. The Minister concluded that Major General Megaw having gained something from Madras, would, he believed, reserve a small corner in his heart for Madras in his capacity as the Director General of Indian Medical Service.

Major General Megaw made a suitable reply and said that if he was not the subject of severe criticisms as other bureaucrats generally are in the Indian press, it was due to the fact that he did very little to be felt or heard, and he expressed his doubts whether such adverse criticisms did always mean what they indicated. He exhorted the medical profession to be united and complained that want of harmony in them is really a canker in this noble profession and that they should find out ways and means to bring about a harmonious union.

Sane and sound advice no doubt; but we are sorry we had not occasion to hear Major General Megaw at close quarters earlier than that night; or else we would have approached him to let us know how to bring about this Union in the present state of affairs when one invades the territory of another and those at the head of the Department do not check such invasions. The whole profession would have been thankful to him if he had solved the problem and brought about the harmony nearest to his heart.

The fact that Major-General Megaw and Colonel Sprawson, his successor, are good friends and that Major General Megaw is still with us, though not in this province, as the head of the Indian Medical Service is surely a consoling feature for one to be hopeful that union is perhaps possible.

We learn that a Registered Medical Practitioner has complained to the Government that the Palghat Taluk Board have quite recently started a rural dispensary at Koduvayur where there exist two qualified and registered medical practitioners of long standing. This matter was referred to in these columns in the December issue in a general way, and a suggestion was made at that time that the aggrieved practitioners in such cases should bring to the notice of the Government such instances which are really against the principle and spirit of the rural medical scheme. We trust that the Government will advise the President, Palghat Taluk Board, to close this dispensary at Koduvayur and open one in any other place in the Palghat Taluk where the people cannot get the services of qualified medical practitioners.

The second annual session of the Mysore medical and Sanitary Conference was opened in Mysore on 13th March 1930 by Mr. Rajamantrapraveena K. Mathai, 3rd Member of Council. It is perhaps not customary to invite the members of the profession outside Mysore for such a Conference, but it would certainly add to the glory of Mysore, if, for such functions, they invite medical men outside the state, as in matters of medical relief and sanitation, those who deal with them should have the broadest possible outlook. Dr. S. Subba Row, Senior Surgeon with the Government of Mysore has been requested to supply to the Office of "The Medical Practitioner", a copy of the proceedings of this Conference and in case he is good enough to

comply with the request, the readers will be enlightened more regarding this Conference.

At the Budget session of the Madras Legislative Council, Mr. A. B. Shetti moved a token cut and raised the question of the establishment of birth-control clinics, and he was seconded by the Maharajah of Pithapuram. The Minister of Health in opposing the motion quoted the debate held a few days back at the Sheffield City Council where a lay woman member expressed her dissent regarding the use of contraceptive methods. It is of course creditable to the Minister to be in touch with the latest happenings in the world about this question. But instead of supporting his opinion from a lay woman of the Sheffield Council, he could have read with great advantage and instruction the debate in the House of Lords where Lord Buckmaster made his brilliant speech. The minister said that the views of the medical men were against contraception. Even in the debate of the Sheffield City Council, the Medical Officer of Health of the Council advocated contraceptive methods. The ex-Surgeon General of Madras and the present Director General of Indian Medical Service, the highest authority on medical matters in India, Major General Megaw, the ex-Director of Public Health and the present medical assessor of the Labour Commission, Colonel Russell whose portrait was unveiled lately by the Minister, and the Lady Superintendent of the Child and Maternity Welfare Scheme in Madras and a large majority of doctors are in favour of birth control; but the Minister had the support of the learned lady Deputy President of the council who expressed her disapproval of contraceptive methods. It is rather strange that as birth control is a woman's question and the two greatest women in the world, Mrs. Margaret Sanger in America and Dr. Marie Stopes in England are constantly agitating about it, the lady Doctor and Deputy President

of the Council should oppose it. Of course she did not entirely oppose it but only said that it was premature and wanted the Government to raise the age of marriage of girls first. Is not the raising of the age of marriage of girls one of the methods of birth control? According to Doctor Newsholme, more than 45% of children born to a woman are given birth to between the age of 15 and 19. If the age of marriage is raised to 19, then the chances are that the number of children born will be few. The minister has stated that in a few days, a Director of Public Health, evidently a Lady Assistant Director, to look after Child Welfare Scheme in the Province, would be appointed. We are sure, whoever she may be, that she will not go against the views of the Head of the Department and oppose birth control. Of course, it is well known, as far as this Province is concerned, that salaries go a great way in changing the views of their recipients.

In reply to the sensible speech made by Mr. A. B. Shetti on the question of the medical relief in the Province, the Minister of Health said that the Government were for appointing more paid medical officers to strengthen the existing staff and also extending the system of honorary appointments. This is rather strange and unheard of anywhere else in the world. Evidently the Minister has no clear ideas about the organisation of medical relief. He speaks one thing when presiding over anniversaries of Medical schools and colleges, another in public meetings and yet another in the Legislative Council. If the honorary men are meant to meet the extra demands and entertained in place of permanent men, then why should they be classed as supernumeraries? If their entertainment is to run parallel with that of state paid men, then surely the fear expressed by us in one of our previous issues that the honoraries are to be for ever supernumeraries, is confirmed. If the private practitioners were to come to

know of this policy of the Government, certainly they will think twice before they offer themselves for honorary appointments.

Correspondence Reviews etc.

THE GENERAL MEDICAL COUNCIL'S DECISION AND INDIA'S DUTY.

BY

DR. JIVRAJ N. MEHTA
M. D., F. R. C. S. etc.

*Dean, Edward Memorial Hospital,
Bombay.*

With the publication of the correspondence that passed between the Government of India and the General Medical Council, the public is now able to have a fairly accurate idea of the elaborate and well considered proposals submitted by the Indian Government to secure the continuance of the recognition of the Indian Medical degrees by the British General Council and of the attitude of this Council towards them.

The Government of India had assured the General Medical Council, with the previous concurrence of all the Local Governments, that a Bill for establishing an Indian Medical Council was to be taken in hand "with the least possible delay" that the intricacies of its various provisions would permit. But, though agreed in principle to the institution of such a body in India, the General Medical Council had neither the patience nor the courtesy to hold their hand during the indispensable period of time it would take to pass the necessary legislation for setting up such a body. Till such a Council is constituted, instead of a single Commissioner of Medical Qualifications and Standards that the General Medical Council had asked for, the Indian Universities offered, through the Government of India, individually as well as through the

Inter-Universities Conference, the appointment of a much more suitable alternative in the form of an All-India Medical Board who would appoint "specialists in their own subjects, namely Medicine, Surgery and Midwifery, respectively, for the purpose of carrying out inspection and reporting on the standard of medical education and examinations". But even that did not satisfy the General Medical Council who expressed their inability to accept this proposal "as furnishing a satisfactory method of supplying the Council with authoritative information on Medical qualifications and standards in India and with necessary guarantee of sufficiency."

If the Government of India had any self-respect left they would not tolerate such insults to themselves and to the Indian Universities. Or are they impotent before powerful vested British interests? No doubt the British General Medical Council is a powerful Body, backed as it is by the British I.M.S. Officers both on the retired as well as on the active list. For these very Officers are the technical advisors of Government in India and of the Secretary of State for India on medical matters. So it is no wonder that the fiat of the General Medical Council is made to appear to our Government-Secretaries, Ministers and Members almost in the nature of a decree of fate against which there can be no appeal.

Now that the die is cast, and the British Medical Council has declared its intentions, the question of entering into any further negotiations with this Council should be ruled out of court altogether. We should henceforth have nothing to do with the British Medical Council and with British Medical Degrees, whose holders, both British and Indian, have unfortunately hypnotised themselves as well as the whole country into a belief on their alleged superiority. The decision of the General Medical Council has thus been a blessing not in disguise but without a disguise.

Efforts are being made in certain quarters to frighten the Indian public as to the future prospects of the 450 Indian Medical students who are at present studying in the United Kingdom. Though the rupture between the Medical Council of that country and the Indian Universities has now occurred, no apprehension need however be felt so far as the interests of these students are concerned. On a careful study of the reports of the Education Department of the High Commissioner for India for the years 1927-28 and 1928-29, it would be found that nearly four-fifths of the Indian Medical students at present in that country, have had their medical qualifications in India, and that they are already on the British Register. Their future prospects, so far as the continuance of their studies in the United Kingdom is concerned, need therefore cause no anxiety to their parents and friends.

As regards the forty or at the most fifty undergraduates, who are studying at the British Medical Schools now, and who would be in difficulties when British degrees are not recognised in India for reasons stated below, a special provision could be made in the Indian Medical Act when passed and as discussed hereunder, to the effect that such Indian nationals may be taken on the Indian Medical Register without any examination before a certain date, say 1935. The interests of no Indian now abroad, and not qualified in India, would thus suffer.

So far as the attendance and instruction in Hospitals and Medical Colleges is concerned, even for those who may still desire to go to Great Britain for further medical studies, no difficulty need also arise so long as they pay their fees, whether reciprocity exists or not. Medical practitioners of the American, Portuguese and other nationalities, whose qualifications are not registrable in the United Kingdom, do even now go to that country to attend the Hospital practice and Laboratory and other

classes, which they are allowed to do on payment of the usual fees. Indian Nationals can therefore, do likewise. They will of course not be able to appear for the British Medical Examinations, nor obtain their degrees. But in my opinion it is just as well that they will not be able to do so, because they make a fetish of British qualifications in this country. What the young Medical Graduates should henceforth do is, if they are still desirous of going to the United Kingdom, to go there and attend the classes as the other nationals do. The training they would get in this way would, if they are earnest in their work, be sufficient for all professional requirements. And if they want still better training, they must remember that they can get excellent post-graduate instruction through the medium of English at Vienna, which has the largest Hospital and the best Post-Graduate Medical School in the world. They will be also welcome in Germany, France and Italy for such training and experience.

The question arises, how long are we to tolerate dictation at the hands of the General Medical Council? If we had the real Dominion Status in action in India, on which the Secretary of State for India has harped several times during the course of the last six months, the arrogance of the General Medical Council and the British Medical Journal whose comments on the decision of this Council have been telegraphed to us, and of their supporters, would not have been tolerated for an instant, and the rule by which aspirants for Commissions in the Indian Medical Service are required to hold a Medical qualification registrable under the British Medical Acts would have been immediately abolished. But in the present situation, it is necessary for the Medical and lay public in India to bring to bear the greatest possible pressure on Government to do what a National Government would have automatically done. It must be understood that

so far as the Dominions like Canada, Australia, New Zealand &c. are concerned, no such special privilege is allowed to the British Medical qualifications in these countries. As a matter of fact, New Zealand and several Provinces of Canada have ceased reciprocity with the General Medical Council and they are none the worse for this break. The Medical Graduates from these Dominions do even at present go to Great Britain for Post-Graduate work without let or hindrance.

I am glad to learn that Dr. M.D.D. Gilder is already drafting a Bill to amend the Bombay Medical Act 1912, with a view to rescind all the privileges which are conferred under that Act, on the holders of British Medical qualifications in the Presidency. I trust the other provinces will follow suit. In the Legislative Assembly, the members should demand an assurance from Government that the gauntlet thus thrown down by the General Medical Council shall be taken up. And the Secretary of State should be pressed to rule that all candidates for admission into the Indian Medical Service should henceforth be Indian Nationals holding Indian Medical Qualifications registrable in India.

The establishment of an Indian Medical Council should be proceeded with as early as possible. As regards provisions in the Indian Medical Council Act for the permission of foreign nationals to practise in India, these will need to be modelled on the lines of the Egyptian Medical Act, which makes it compulsory for all Foreign Nationals who desire to practice in Egypt, to pass an examination to be held by a Special Board of Examiners appointed for the purpose by the Minister of Public Health. Such provisions in the Indian Medical Council Act will need to be made as much applicable to the Officers of the R.A.M.C. and of the naval and mercantile marine during the period of their service in India or in the Indian Territorial Waters as to the other

nationals. This will be India's reply to the insolence of the General Medical Council.

B.M.C.'s.—A GRATUITOUS INSULT.

BY

DR. K. S. RAY M.A., M.B., Ch. B.,
(EDIN.)

Secretary, The Indian Medical Association, Calcutta.

There is in these days hardly a plane on which British and Indian interests do not frequently conflict. This is the natural outcome of a growing sense of Indian nationalism and to the Indian a matter of justifiable pride. The recent declaration of the British Medical Council to withdraw recognition of Indian medical degrees may be regarded as the result of yet another such clash, and, indeed one to be welcomed rather than deplored by Indians. For, it means that on the plane of medicine British interests in India have acknowledged defeat. It is not on the plausible reason of the inferiority of Indian medical degrees that our attention should centre, but on the motives that inspired the action of the British Medical Council. A knowledge of the circumstances leading to the present position will make the motives clear.

There was a time, during the war, when Indian doctors were urgently needed and they answered the call in large numbers. Then they were praised, today they are flouted. Their qualifications are questioned. Thus are they required. The presumption that Indian medical training has deteriorated since the war is entirely false because there is reason to believe that standards have improved. The real cause must be sought in another direction, and obviously it is in the direction of the I.M.S. that we must look. Here is a service, of military origin and character, over reaching its legitimate sphere and looking for its rewards chiefly in civil appointments

It was only natural that the growth of numbers of indigenous fully qualified medical men would one day challenge the I.M.S. man in the civil sphere, but least of all was it contemplated that even within the ranks of the service Indians would make their way and carry their challenge into the stronghold of the British monopolists. The threat to the British Interests have proved very real in the successful competition of Indian doctors in the Civil sphere and even though only a handful of Indians are at the present time found in the I. M. S. the thin end of the wedge is evident here as well. Every means has been tried to stem the increasing Indian competition, but all measures so far being found ultimately indefensible, a subtle move has doubtless been considered necessary to retrieve the position. By removing the opportunity of many Indians from gaining British degrees, the door to the I. M. S. would, thereby be closed to them and the absence of British degrees among Indians would also again open the door to lucrative civil appointments and private practice to the I.M.S. Britisher. So at least, it is hoped.

But the repercussions of the action of the B. M. C. is likely to upset these confident calculations. Really their action is a blessing in disguise to India. The affront offered to the country and Indian members of the medical profession here, will arouse a resentment that will serve to render them more united than they have ever been before. It will whip them into a sense of self-dependence, where formerly they made a fetish of British qualifications. Action calculated to improve the conditions of their profession will doubtless follow and the establishment of the much needed All-India Medical Council made imminent. We may therefore shortly see a development in the medical profession in India that will prove surprisingly beneficial to the country.

At this juncture, men with any foresight will realise the advantages

of co-operative action offered by the Indian Medical Association. The best answer to the B. M. C.'s gratuitous insult to India is to join the Association, and through it to make the B. M. C. realise the enormity of its error. Retaliatory steps have been suggested, and it is unfortunate that the present system of government in India renders the attitude of studied indifference, as taken up by New Zealand for instance impossible. At the same time, effective steps may be taken by the boycott of British drugs and medicines, but above all the situation calls first for the marshalling of the Indian forces and the presentment of a solid front. By this means will the new stigma on the name of India be wiped out.

Review

The Indian Medical World

The Independent Medical Profession, Calcutta should be congratulated on starting a Journal with the object of endeavouring "to keep before the Medical Profession its onerous duties and heavy responsibilities in the matter of Education, Sanitation, Research and Medical relief" and "to chronicle the activities of the Indian Medical Association and efforts for bringing about a greater harmony and closer co-operation among the members of the medical profession in India for protecting the interest and also for setting on foot a strong movement for the improvement of the National Health and National Welfare." The objects set forth are of the highest importance and we are sure they will be secured under the guidance of the distinguished editor Doctor Sir Nilaratna Sircar, Kt., M.A., M.D. D.C.L., etc., who is respected by the public and the government alike and with the co-operation of the members of the medical profession. The medical practitioners both university degree holders and others should join hands and the Journal must try to bring about an uniform standard of medical curriculum in the country.

NOTE

Veneral diseases eat away the vitals of our country. To combat these diseases is a part of the nation-building work in which the members of the medical profession in India should concern themselves. We have been for some time interesting ourselves in the discussion regarding the suitability of drugs in the treatment of Syphilis. Though intravenous method of medication has become the fashion of the day and more attractive to the patient, the medical profession is aware of its dangers when used indiscriminately or hastily. The ideal seems to be in the interests of the patient, to have recourse to a preparation of Arsenic which could be sent into the system intramuscularly without causing pain or any inconvenience to the patient and at the same time the preparation should have a guaranteed potentiality to combat the disease as quickly as possible. Though arsenical preparations are the sheet anchor in the treatment of Syphilis there are cases where this drug cannot be pushed or used at all on account of intolerance or idiosyncrasy. The only other two drugs to be depended though not to the extent claimed by arsenic are Mercury and Bismuth and of the two the latter seems to be much favoured for more reasons than one. The Anglo French Drug Co. (Estn) Ltd. request us to inform the practitioners interested in the treatment of Syphilis that they will gladly supply free samples of Sulfarsenol and Benzo-Bismuth. The latter is a soluble preparation of Bismuth which is

claimed to be the drug of choice in various Continental Hospitals especially in France. We trust our readers will concern themselves in the controversy regarding the suitability of drugs in the treatment of Syphilis and we offer them our columns for any healthy discussion interesting the medical profession.

The Union Drug Company, Calcutta has been pleased to send us a fairly large number of tubes containing Kurchibine tabloids for trial. We published an abstract from the Indian Medical Gazette about the efficiency of the alkaloids obtained from Kurchi Bark in the treatment of Amoebic Dysentery and the experiments conducted at the Tropic School, Calcutta have shown without a shadow of doubt that the alkaloids derived from Kurchi Bark were found to be superior to emetine hydrochloride. This aspect of the utility of this new preparation having been proved in the treatment of amoebic dysentery, we could suggest to our readers to try this stuff in Bacillary and other dysenteries either of known or unknown origin and note its effects. We have reports of a few cases of dysentery other than amoebic where this preparation has given good results. The manufacturers are prepared to send free samples of Kurchibine to the practitioners who apply for them and we trust that the medical profession will give this new Indian preparation the trial, it deserves.

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1930]

List showing the postings of the Sub-Assistant Surgeons in March 1930.

Name of the sub assistant surgeon.	From	To
1. M.R.Ry. K. Achuthan	Govt. Dispensary, Tiruvallur, (Chingleput Dt.)	Reserve duty, Head Quarters Hospital, Chingleput.
2. " M. Lakshmanamurthi	Government Hospital, Parlakimidi, Ganjam Dt.	Government Hospital, Russelkonda, Ganjam Dt.
3. " N. Sreeramulu	Head Quarters Hospital, Guntur.	Local Fund Dispensary, Podili, (Nellore Dt.)
4. " V. Lakshminarayana	Head Quarters Hospital, Guntur.	Placed at the disposal of President, District Board, Guntur.
5. " M. Goparaju	Local Fund Hospital, Addanki.	Head Quarters Hospital, Guntur.
6. Miss. A. Pankajam	Government Hospital, Tellicherry.	Head Quarters Hospital, Calicut (Malabar)
7. M.R.Ry. V. Sivasambu	Reserve duty, Head Quarters Hospital, Palamcottah, Tinnevely Dt.	Head Quarters Hospital, Palamcottah (Tinnevely)
8. " T. C. Anandan	Police Hospital, Salem.	Mental Hospital, Calicut.
9. " B. Manjunath Baliga.	Mental Hospital, Calicut.	Placed at the disposal of the President, District Board, Malabar.
10. " A. M. Kandasami	Head Quarters Hospital, Vellore (N. Arcot Dt.)	Posted to Plague inoculation work, Tirupattur, N. Arcot Dt. and then to L. F. Dispensary, Jammalamadugu (Cuddapah Dt.)
11. " K. W. Jayaram Rao	L. F. Dispensary, Hosur, Salem Dt.	To be on reserve duty, Head Quarters Hospital, Tanjore and then placed at the disposal of the President, District Board, Tanjore.
12. " Y. Suryanarayana Rao	Government Dispensary, Markapur (Kurnool Dt.)	To be on reserve duty at the Headquarters Hospital, Ellore (West Godavari Dt.) and then posted to Taluk Headquarters Local Fund dispensary, Kovur.
13. " S. Ramachandra Rao	Local fund dispensary, Kovur (West Godavari District.)	Government dispensary, Palacole (West Godavari District.)
14. " C. Manicka Mudaliar	Leave.	Reserve duty, Head quarters Hospital, Chittoor.
15. " K. S. Tyagarajan	Local fund hospital, Mettupalaiyam (Coimbatore Dt.)	Placed at the disposal of the President, Dt. Board, Coimbatore.
16. " P. Balasundram	Headquarters Hospital, Palamcottah.	To be on reserve duty of the same Hospital.
17. " R. Shunmugam Pillai	Borstal School, Palamcottah.	Police Hospital, Salem.
18. " V. Venkatasami Pantulu	Under orders to Local fund dispensary, Sadam.	Government Hospital, Kalahasti, Chittoor District.
19. " S. Seshareddi	Government Hospital, Kalahasti.	Placed at the disposal of the President, Dt. Board, Chittoor.
20. " P. Muthukrishnan	Local Fund dispensary, Sadam (Chittoor Dt.)	Local fund dispensary, Voyalpad (Chittoor Dt.)

List showing the postings of the Sub-Assistant Surgeons in March 1930.

Name of the Sub Assistant Surgeon.	From	To
21. " B. P. Ramanuja Charyulu.	Local fund dispensary, Voyalpad, (Chittoor Dt.)	Reserve duty. Head quarters Hospital, Chittoor.
22. " J. T. Moses.	Leave.	Placed at the disposal of the Principal, Forest College, Coimbatore.
23. " G. Kamaluddin Sahib	— do —	Police Hospital, Malapuram.
24. " K. Kuppusami	Reserve duty. Headquarters Hospital, Trichinopoly.	Placed at the disposal of the President, Dt. Board, Trichinopoly.
25. " P. S. Kalyanasundaram	Local fund dispensary, Thathiangarpet, (Trichinopoly Dt.)	Headquarters Hospital, Trichinopoly.
26. " N. P. Ramanujachari	Under orders of transfer to Rural Dispensary, Headquarters Hospital, Chittoor.	Placed at the disposal of D. M. O. East Godavary for Agency duty.
27. " N. Sreeramudu	Reserve duty Head Quarters Hospital, Guntur.	Posted to the same Hospital.
28. " P. Lakshminarayana-murthi	Hd. Qrs. Hl., Guntur.	King Edward Memorial Hospital, Secunderabad.
29. " V. G. Parthasarathi Naidu	L. F. Dispensary, Sendurai (Trichinopoly District).	Reserve duty, Hd. Qrs. Hl. Trichinopoly.
30. " K. Achutha Nayar	On Reserve duty, Hd. Qrs. Hl., Chingleput. Under orders of transfer to Tanjore District.	Reserve duty, Hd. Qrs. Hl., Chingleput.
31. " K. Chinnappa Reddi	Govt. Dispensary, B. Singapore (Vizagapatam Dist.)	L. F. Dispensary, Dharapur, Anantapur Dt.
32. " B. Yerramaraju	L. F. Dispensary, Dharma-varam, Anantapur, District.	Munro's Hl. Gooty, Anantapur.
33. " K. V. Jayarama Rao	L. F. Dispensary, Kuttalam.	Reserve duty Hd. Qrs. Hl., Tanjore and then placed at the disposal of the P. D. B. Tanjore.
34. " K. Gopalam Ayyangar	Reserve duty, Hd. Qrs. Hl., Chingleput.	Govt. Hl., Conjeevaram (Chingleput District)
35. " A. Bhagyanathan Pillai	On return from leave	Hd. Qrs. Hl., Ramnad.
36. " M. Goparaju	Reserve duty, Hd. Qrs. Hl., Guntur.	Govt. Hl., Kadiri, Anantapur District.
37. " H. S. Subramanyam	Govt. Hl., Kadiri (Anantapur District)	Placed at the disposal of the Inspector-General of Prisons.
38. " B. Satyanarayana Naidu	Govt. Hl., Parlakimidi (Ganjam District)	Placed at the disposal of P.D.B., Ganjam.
39. " P. Sitaramayya	Leave.	L. F. Dispensary, Podili, Nellore Dt.
40. " N. Murthi-sarma	Reserve duty, King George Hospital, Vizagapatam.	Placed at the disposal of P. D. B., Bellary.

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To obtain the best results from their use in the cheapest way we suggest the following.

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It is claimed for Hepar tablets A. F. D. (a preparation of Liver in tablet form) that while they are weaker in the active extract which produces immediate relief, they are rich in certain liver amino-acid groups which are necessary for the complete nutrition of the liver, and for restoring its functional activity as a Hemopoietic organ.

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Under a new treatment by Boldine Pills A. F. D. operations for gallstones in the Gall Bladder can often be averted.

It has been observed that the fluidity of the contents of the gall bladder varies at different periods of the day. Where the secretion remains too dense for long periods gall stones are liable to form. The cure consists of maintaining the fluidity of the gall bladder contents, when the tendency is reversed, and the concretions are gradually softened and dissolved. Six to ten Boldine pills may be prescribed for each day in divided doses. Each dose is given 15 minutes before a meal.

MYCOL.

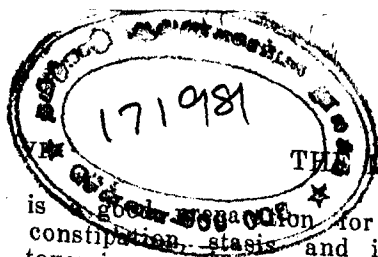
Many doctors would often prescribe Bile Extracts; sometimes some doctors prescribe Taurocholate of Sodium for much the same purpose.

The extracts and Taurocholate make most people sick. Very few people can stand such substances put into their stomach. Most patients get upset at once. It is necessary therefore to supply such medicines in a tablet form and to coat the tablet in such a way that the contents will not become soluble in the stomach.

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Usually where there is a shortage of bile in the intestines, constipation or other bowel trouble such as those for which Mycol would be prescribed, there is usually a tendency to fermentation of various kinds and toxins are formed in the intestines. This combination of Beer Yeast, Lactic Ferments and Bile Extract is perhaps the best for that purpose. If a doctor will try a sample of Mycol on some patient, he will see for himself that it



is good preparation for chronic constipation, stasis and intestinal toxemias.

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In severe cases of Diabetes, in order to get immediate results, Insulin is necessary, but insulin is expensive and troublesome. Exact blood tests must be made. Exact diet must be maintained.

The patient objects to being pricked every day. Whether insulin is given or not, the patient should be given Pancrepatine tablets. The necessity for insulin will soon disappear. Sugar can be reduced from 40 grains per

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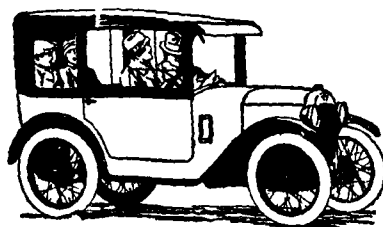
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The Medical Practitioner

A Monthly Medical Journal

EDITED BY

Dr. M. S. Krishnamurthi Ayyar, M. B. & C. M.,
Retired Sanitary Commissioner, Travancore State,

AND

Dr. V. Rama Kamath.

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We are obliged to the members of the medical profession who most cordially met our Representative, now touring in Southern Districts. Suggestions kindly offered by them both in the matter of the journal and their local grievances have been carefully noted and will be given effect to as occasions arise for the desirability of carrying out these suggestions. With due respect to the wishes of many of the practitioners, we beg to convey to them that we are still most reluctant to send the journal by V.P.P. for the recovery of subscription, unless specially requested to do the same.

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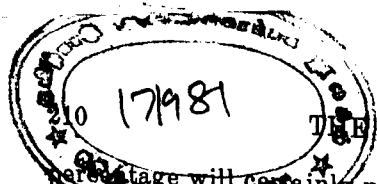
MEDICAL INSPECTION OF
SCHOOLS.

In the last meeting of the Legislative Council the Minister of Education said to the effect that the medical inspection so far done was not satisfactory and that there were no funds to extend the system and make it really useful. The former part of the statement is quite correct, but the latter part is not so. The Minister does not seem to have any clear vision of the purpose and importance of medical inspection of school-children nor does he possess the resourcefulness for meeting varying conditions in administration. The main principle in economics to be borne in mind is that even small amount of money spent on useless object is waste while large amounts of money spent on useful work is not so and further that economy practised in withholding a small additional expenditure on an useful undertaking in order to make it really useful is a ruinous economy which by saving a little makes the large amount already spent a waste. The Government spends annually a very large sum of money on education and in order to see that the education given at such a high cost is really profitable, it has to be seen how many of the scholars for whom the education is given are really in a fit state to be benefited by it and if not, the money spent on them is a clear waste of public fund. The number of pupils examined in 1927-28 in this Province was 1,41,613 and

they form a very small of the proportion, less than 10 per cent of the total under instruction.

CLASSIFICATION OF DISEASES:

The inspection conducted is not satisfactory. In a poor country like India where a large majority of the population do not have a full meal a day the number returned under malnutrition was nil in certain schools of certain Districts and even in certain schools in some of the Divisions in the city of Madras, and this shows that the inspection was not properly done. It is not entirely due to the fault of the medical officers, that were entrusted with the work, but to the irresponsible cooly system under which the work was done. The classification of diseases provided in the return is not correct. Certain skin diseases, dental diseases, eye diseases, rickets etc. are due to malnutrition and are deficiency diseases and if they are properly classed and brought under malnutrition or deficiency diseases, the number would go very high. There is no heading for mental diseases and all of them cannot be included under the diseases of the nervous system. Intelligence test on Binet-Simon system should be used for calculating intelligence and if done so more than half the number now returned under nervous diseases might be permanent mental defects. As it is, the number under the diseases of nervous system works at 12 per cent while the rate in England in 1928 was 20 per cent. In India the



percentage will certainly not be below that of England. As examined at present only 30,000 out of 1,41,613 were found in good health or in other words a little more than 21 per cent. Taking malnutrition, defective vision, defective hearing, heart diseases (organic) and nervous diseases all these amount to about 35,000 or about 25 per cent. of the total examined.

THE IMPORTANCE OF MEDICAL INSPECTION:

The question of medical inspection is a public health one and Sir George Newman, Chief Medical Officer of the Board of Education in England says about it as follows: "The intimate connection between the Public Health and Education is perhaps the one indisputable fact upon which all progressive social legislation in every civilised country in the world has been based for nearly half a century". The School Medical Inspection in England is chiefly connected and partly undertaken by Health Officers. Medical Inspection does not end with merely finding out whether the pupils attending schools are fit to receive education or not, but to make a healthy nation. It is all the more necessary, therefore, at present in India that a healthy nation must be formed when Dominion Status is within reach. Surgeon-General Hutchinson says that "It may not be possible to make A.I. department with C. 3 income but it is worth trying to secure A.I. income by producing a A. I. population". The following observation of the Board of Education is worth quotation.

"The Board desire therefore at the outset to emphasize that this new legislation aims not merely at a physical or anthropometric survey or at a record of defects disclosed by medical inspection, but at the physical improvement, and as a natural corollary, the mental improvement of coming generations. The Board require of a healthy life are comparatively few and elementary but they are essential and should be regarded as applicable only to the case of the sick. In point of fact if rightly administered

the new enactment is economical in the best sense of the word. Its justification is not to be measured in terms of money but in the decrease of sickness and incapacity amongst children and in the ultimate decrease of inefficiency and poverty in after life arising from physical disabilities." Neither the steps so far taken nor the failure to extend the system on account of financial difficulties indicates whether the movement is progressing on the right lines.

WAYS AND MEANS.

It is not statesmanship that imposes extra tax for each and every improvement required in the administration. Unnecessary expenditure which at the beginning might have been necessary, must be cut down. As an example the Medical Department may be taken into consideration. At the beginning when the number of private practitioners were few or none it was necessary for the Government to run hospitals with paid men. But when the number of private practitioners has become large and sufficient to meet the demands of the population any expenditure spent on Government Hospitals is a waste. The Government here are spending about 40 lakhs of Rupees annually on salaries of Medical Officers. A large number of them can be replaced by honorary men as is done in civilised countries and by so doing at least a saving of 20 lakhs of Rupees can be effected and the sum might very well be utilised for medical inspection of schools. Sir George Newman in one of his addresses said "The best way to achieve advancement in Public Health is to make Hygiene a compulsory subject in schools". If this is the case in England where more than 90 per cent of the population are literate, it is ten times more true in India where less than 10 per cent are literate. Another great authority, the Hon'ble Dr. Hoops, the President of the Far Eastern Association of Tropical medicine also said that Hygiene and Physiology should be made compulsory subjects in all Schools. It is neces-

sary, therefore, in India that if Public Health is to be improved, Hygiene and Physiology should be made compulsory subjects in all schools and taught only by medical men. These medical men may be entrusted with the duty of conducting medical inspection of schools. They need not be full-timed employees. For a school or a group of schools in a place one Medical man may be appointed to teach Hygiene and Physiology and made to conduct medical inspection in the schools. He will thus be able to keep under observation pupils for whom observation is necessary to diagnose the disease. In his leisure hours he may be allowed to have private practice and thus supplement the rural medical relief organisation. If necessary all these medical men whether University men or others may be given a course of lectures on medical inspection. The Government need not undergo any direct expenditure in this connection. There are large number of medical practitioners under the rural medical scheme and there are also very large number of private practitioners. The school authorities must be compelled to appoint medical men as teachers for teaching Hygiene and Physiology and undertake medical inspection if the schools are to be recognised and the Government may pay a small grant for the purpose. Thus it will be seen that with little or no direct expenditure by Government the teaching of Hygiene and Physiology in Schools and Medical Inspection of Schools and the Rural medical relief, all these may be satisfactorily conducted. As regards supervision, following the practice obtaining in England of entrusting medical supervision to medical officers of health, the same practice can be followed here also. The Province of Madras does not seem to have been divided on any principle into districts. Taking the population, it varies from 6,87,939 in Cuddapah to 30,98,874 in Malabar and in point of area, it varies from 2,545 Square miles in Godavari to 19,888 in Agency tracts. For the purpose of Public Health it is not desirable to entrust more than

a million population to a District Health Officer, and at this rate for the present population about 40 District Health Officers are required and the Province may be divided into 40 Public Health Districts. There are already about 28 District Health Officers and an addition of 12 more is necessary. The Government have sanctioned the appointment of 12 second class Health Officers as Assistants to Dt. Health Officers in certain Districts. We have already pointed out the inadvisability of appointing 2nd class health Officers as Assistants to Dt. Health Officers in several issues of this journal. If these 12 are replaced by 12 Dt. Health Officers the required number of 40 will become available and the supervision of medical inspection will become complete with a very small additional expenditure.

MEDICAL COUNCIL ELECTIONS.

Precepts announcing three elections to fill in three vacancies that have occurred due to expiry of the term of Office of three members in the Medical Council must have by this time reached some of our readers. Our readers who have been watching the activities of the Madras Medical Council as reported in the columns of this journal, will not have failed to note that drift, delay and demoralisation have been the outstanding features of the administration of the affairs of the Council and that it was inconceivable that those who were responsible and who were in a position to set right matters had allowed this state of affairs to continue. The causes are not far to seek. The Medical council consists of 15 members including the President out of which 8 members are nominated by the Government. Of the seven members returned by election, 2 are from Madras and Andhra Universities elected by the respective Faculties of Medicine, one to represent the practitioners in the British Medical Register, 2 to be elected by the graduates of the local Universities, 2 to be elected by

the practitioners in the third group of the register, consisting mainly of L.M.Ps., graduates of other universities and all other Diploma holders whose qualifications are recognised by the local council. Except in the case of the 3rd group, it has not been so far possible to secure members in the Medical Council who can be independent of the Surgeon General who has been always the President of the Council. The rights and privileges which the Medical Registration Act confers on those who register themselves are denied to the private practitioners by the executive orders of the Government. Hence medical men in service are the only practitioners who enjoy unhampered these rights and privileges in addition to many others which are enjoyed by them by virtue of their official position. Consequently the large majority of members in the Council do not realise their responsibilities towards those who are not in service nor could they feel for them. Those in service have not much to do with the Medical Council, much less with its Registrar except in the matter of registering their names to enable them to enter government service. The Office of the Surgeon-General does everything for them after they enter service. So if there were complaints from private practitioners that the Registrar did not acknowledge their letters nor reply to them and that there was unnecessary delay in the matter of registering their names, though they observed all the formalities required by the Act (there being instances where it took several months for them to get their certificates of registration), these looked like stories and not realities to servicemen in the council. Grave irregularities have been brought to the notice of the Council regarding election of members to the council (the latest being the omission of the election of the Vice-President of the Council) and no procedure or regulations prescribed by the Act is followed by the Registrar in the matter of enquiries in penal cases.

For the last four or five years, the Medical Registers have not been compiled or published in the manner prescribed by the Act. If more instances are needed regarding drift and demoralisation in the Office of the Medical Council, we may refer our readers to the account given by Dr. V. Rama Kamath about his election to the Medical Council in our very first issue (October 1929) and the subsequent articles regarding the Medical Registration Act that appeared in the two subsequent issues. He has made some statements which have not been challenged by those who are responsible for the running of the Medical Council.

The local Medical Council came into existence about 15 years ago and no initiative has been taken either by successive Presidents of the Council or the members to improve the medical education in this Province nor guard the interests of the Independent Medical profession. Matters have not improved either in the constitution of the council or in other details. Yet it will not be out of place to mention that in spite of defects in the constitution of the Council, it is at times possible to attempt to do something by the representatives of the private practitioners in the matter of guarding their interests. The recent resolution passed at the last March session and reported in the columns of our March issue, recommending to the Government to do away with the baneful practice of countersigning by medical men in service of certificates issued by the Independent medical practitioners is an instance in point. At the same time, we have to confess that it may not be possible to bring about salutary reforms in the present state of affairs as obtaining in the council; yet it must be noted that failures to do good by the individual members in the medical council is certainly a success in disguise. If it does not achieve anything at all it paves the way for drastic reforms, especially if such failures are given wide publicity so that those for whom

the medical council exists and the public might know and realise the actual conditions existing in the medical council. The Medical Council has enormous powers to do good to the medical profession, be it to raise the standard of medical education or the status of the practitioners. There is now an opportunity for the electors to show their responsibilities. There does not seem to be much in evidence regarding any keen competition in the impending election except in the case of candidates who wish to represent the graduates of the local University. Two candidates have so far sent in their manifestoes to the electorate. It is customary in elections for the candidates to mention their programme of work if they are returned. Such tactics are wholesome and conducive to the growth of the medical profession. So far it appears that these two candidates depend more upon their personal influence rather than their work in the past or any beneficial programme for the future. We wish the electors to demand from the candidates pledges regarding their plan of action for the uplift of the medical profession and bring into existence a register where all the practitioners are grouped together into one class, for changing the constitution of the council so that there may be a non-official majority and an elected president and to set to work immediately they are returned to the council and see that the executive in charge of the Medical Council discharges its duties satisfactorily as is required of it by the Act. It will not be out of place for the electors to demand from the candidates seeking re-election about their past achievements in the medical council for the profession in general and specially for the constituency they represent. It is not fair for the candidates to take advantage of their position either official or public and misguide the electors. Past work either in the medical council or outside and a progressive future programme should be the chief considerations that should weigh with them.

Vote is a sacred trust and we hope that the electors will realise their responsibilities not only to themselves but to the profession as a whole in the matter of exercising their franchise.

Original Articles

ENDOCRINOLOGY

BY

DR. M. S. KRISHNAMURTHY AYYAR,
M. B. & C. M.,

VIII

Thyroid Glands.

Differential diagnosis between hyper and hypo thyroidism:—The differential diagnosis may be considered under (a) condition of the glands (b) skin, nails and hairs (c) bones and muscles (d) circulation, blood and heart (e) alimentation (f) respiration (g) uro-genital and urinary (h) nervous and special senses and (i) metabolism.

Hyperthyroidism (a) Smooth, diffuse, symmetrical or nodular. (b), Thin, soft moist skin, circulation good, occasionally mottled erythema of neck and chest, perspiration increased hair smooth and silky, nails smooth and not brittle. (c) Long and slender fingers, increased mobility of joints. (d) Tachycardia, palpitation, vaso motor irregularities, high blood-pressure in Grave's disease, normal red cells count, lymphocytosis relative, eosinophilia occasional. (e) Tongue variable, attacks of diarrhea and vomiting are common, nervous indigestion, occasional constipation, good appetite with loss of weight. (f) Shallow breathing, tachypnea, feeling of dyspnea (g) Amenorrhea, occasionally diminished libido and potentia sexualis, polyuria. (h) Nervous irritability extreme, restlessness, apprehension, anxiety-phobia and obsessions, insomnia, psychomotor activity, fine tremor of hands and tongue, sensation of heat and heat

intolerance, headache—(pounding) reflexes increased, ex-ophthalmos, wide lidslits, swollen and pigmented eye-lids, hearing sensitive. (i) Basal metabolism rate increased, under nutrition, diminished carbo-hydrate tolerance, temperature may be increased.

Hypo-Thyroidism:—(a) Atrophic or aplastic or colloid goitre (b) Skin yellow like parchment or pale like alabaster, malar flush, perspiration reduced, myxedema, nails thick, rough wrinkled, dry, brittle with white spots and longitudinal ridges, dermatosis common, hair dry, scanty brittle, and lustreless, outer third of the eyebrows missing, scant hairiness of the arms and legs. (c) Retarded bony growth, defective development of ossification centres, short thick and deformed bones, stiff joints, cracking noises in the joints, flat foot. (d) Bradycardia, hypo or hyper tension, constant chilliness, sensitiveness to cold, enjoy heat, circulation poor, anaemia usual, leukopenia, lymphocytosis, eosinophilia common. (e) Appetite poor or variable, tongue coated, dry mouth, hypocholia, constipation, teeth soft and carious, pyorrhea and tartar common. (f) Respiratory oppression, slow respiratory rate, asthma-like attacks. (g) Early puberty, menses usually regular profuse and painless, amenorrhea occasionally, more often infiltration and menorrhagia, diminished libido and potentia sexualis, nocturnal enuresis, and cystic irritability, urine variable output, low in solids and urea, high acidity, indican and many squamous epithelia present. (h) Apathy, poverty of thought and initiative, drowsiness, psychomotor retardation, melancholia, marked sensitiveness to cold, asthenia, headache dull and of early morning type, reflexes reduced or absent, deep set eyes, narrow lid slits, thickened lids, tinnitus, otosclerosis, giddiness, nasal catarrh. (i) Basal metabolism range below normal, obesity of general distribution, padding on dorsum of the hands and feet, also in supraclavicular and dorsal cervical regions, increased carbo-hydrate tolerance, hypo-thermia.

Tests for Hyperthyroidism.

Eye signs:—(1) *The ex-ophthalmos*, characteristic protrusion of the eye ball giving rise to a peculiar staring expression. The eye ball is apparently increased in size.

(2) *Dalrymple's sign:*—The sclera may show above and below the cornea, more markedly and frequently below than above, and the widening of the palpebral fissure.

(3) *Stellwag's sign:*—A condition of suppressed involuntary winking.

(4) *vonGraefe's sign:*—Failure of the upper lid to follow the eye-ball down in looking downwards due to the increased tonus of the levator palpebral muscles.

(5) *Mobius' sign:*—Weakness in convergence of the eyes. On fixing the eyes on a finger one eye will turn to the outside, particularly when the finger is brought close to the eyes.

(6) *Wilder's sign:*—This consists in a peculiar jerk or twitching of the eyes at the instant of changing the movement of abduction into adduction; this sign can best be elicited by requiring the patient gaze intently at the end of the finger held about 18 inches in front of the eyes and moved with slow and even pace from side to side so as to make the eye perform an excursion of abduction and adduction. When the eye reaches the limit of the excursion and changes from abduction to adduction there will be seen more or less a pronounced jerk or twitching before it regains its steady movement.

(7) *Gifford's sign:*—Difficulty in evertting the upper eyelid on account of its retraction and rigidity.

(8) *The Glistening eye and ephiphora.* Those due to the vagatonic symptoms of increased lacrimation are not infrequent. The increased flow of the tears is due to a stimulation of the autonomic fibres of the seventh nerve.

(9) *Loewi's test.* In hyperthyroidism as in pancreatic diabetes, instillation

of 1: 1000 solution of epinephrin produces dilation of the pupil.

(10) *Goetsch test:* Blood pressure, pulse and respiration records are made and then one half cc. of a 1:1000 solution of epinephrin is given subcutaneously and observations are continued at 5 minutes intervals. The test is considered positive if the systolic pressure rises from 10 to 50 m. m. of Hg in the first 5 minutes and the pulse rate is always increased at least by 20 beats per minute. In half an hour there is a secondary rise but to a smaller degree.

11. *Anisocoria:* Inequality of the pupils is due to disturbance of the balance between the sympathetic and vagal autonomic nerve supplies of the pupillary muscles on one side.

12. *Jellinek's sign:* Pigmentation of the eyelids is due in all probability to an associated disturbance in the chromophil system; it is an early symptom and diminishes usually during the course of the disease.

13. *Riesman's sign:* A loud bruit audible over the eyeball.

14. *Rosenbach's sign:* This consists of tremor of the closed eyelids and is of course part of the generalised muscular tremor.

2. **Glucose tolerance test:**—The patient is given 100 grams of glucose by the mouth and before doing so a blood sugar test is made, one hour following the ingestion, a second blood sugar test is made and in another hour a third test is made. It is better to test the urine one hour before the test commences and at each time the blood sugar is tested. A normal man does not show increased blood sugar that lasts an hour. In hyperthyroidism the sugar wave reaches the crest at end of the first hour falling to normal by the end of the second hour in a majority of cases.

3. **The Quinine test:**—The patient is given a dozen capsules each containing 10 grains of the neutral hydrobromide of quinine with instructions to take 1 capsule 4 times a day, an hour or two after meals and

at bed time. By the time 30 or 40 grains have been taken by persons whose thyroid function is not excessive there develops a sense of fullness in the head, impaired hearing with tinnitus, often dizziness and headache and feeling of slight discomfort in the stomach and bladder. In the presence of hyper action of the thyroid no symptoms develop.

4. **The pituitary test:**—One milliliter of the extract from the posterior lobe of the pituitary is injected into the patient, when the pulse becomes slower within two minutes. In thyroid toxemia this effect disappears in about 8 minutes, but in normal persons this causes acceleration of the pulse which shortly becomes stationary in 5 to 7 minutes and usually return to normal in 15 minutes.

5. **Maraon's skin reaction:**—By slightly rubbing or pressing with the fingers the skin of the throat an intense vaso-motor reaction may be provoked. In goitrous subjects, the red area may be continuous or discontinuous, and in certain cases an urticarial component is evident, the area showing slight elevation.

Therapeutics.

Desiccated thyroid is the drug usually used in medicine and oral administration is the only method at present. The dose varies from 1/10 of a grain to 2 grains. Other preparations used are iodothyro-globulin, the dried serum of the thyroidectomized animals, the dried milk of the thyroidectomized goats, thyroxin and thyroid-nucleo-protein. The treatment should begin with small doses, gradually increased. From the nature of the effects of the thyroid as pointed out in previous articles, it is clear that it has a wide field of application. It is not a special drug but a general one indicated and found useful in all cases caused by insufficient destruction of toxic wastes, as in tetany, epilepsy, eclampsia, asthma, rheuma, atism, migraine, obesity etc; in diseases due to low general nutrition of all tissues including bones as rickets, osseo-malacia, osteo-myelitis, in dis-

orders due to lowered nutrition of the muscular elements as in general adynamia, neurasthenia, and myasthenia; in all cases in which the processes of repair and absorption are deficient as in delayed union of fractures; certain malignant and benign neoplasms, syphilitic tissue and bone necrosis and in all infectious diseases owing to the increase of auto-anti toxin, thyroidase (opsonin) and phagocytes, as in early stage of tuberculosis, typhoid fever, infectious tonsillitis and certain exanthemata.

Amenorrhoea:—In all cases of functional amenorrhoea thyroid combined with ovary and pituitrin is good; to get the maximum effect it must be given just before the estimated time of the menstruation.

Asthenia:—In these cases thyroid combined with pituitrin and suprarenal acts well.

Asthma:—In cases of asthma associated with high blood pressure as in those occurring among old people thyroid is good.

Cretinism:—Thyroid is particularly valuable in this disease attended with goitre. In some cases it may be given combined with pituitrin.

Constipation:—In constipation and in some cases of obstipation thyroid is found effective either given by itself or combined with pituitrin.

Dementia Praecox:—In certain cases of dementia praecox thyroid is found useful.

Deafness:—In those associated with hypoplastic middle ear cases, thyroid is effective.

Dysmenorrhoea:—Thyroid with pituitary substance and ovarian substance is useful in some cases.

Enuresis:—The results of the thyroid therapy in this disease have been successful in the experience of a large number of observers. Dosage should be below half a grain and raised to $\frac{1}{2}$ gr. per day.

Epilepsy:—The administration of the thyroid and of calcium salt will always ameliorate and some times cure this disease.

Goitre:—In cases of simple goitre with toxic symptoms thyroid beginning with $\frac{1}{10}$ th of a grain and given three times a day is found useful but requires careful supervision.

Growth:—In the lack of development of growth in children—mental and physical—thyroid is of general value but a combination with pineal, anterior pituitary suprarenal and gonads is more successful and applicable in all cases.

Haemorrhage:—Some favourable reports have been made about the use of thyroid in the treatment of hæmophilia.

Infectious Diseases:—Owing to the immunising power of the thyroid it is found useful in septicemia, typhoid, erysipelas, syphilis etc.

Menorrhagia and Metorrhagia:—When due to the infiltration of the mucus membrane of the uterine mucosa, thyroid is found useful.

Menopause:—As the abnormalities of the menopause are beyond all doubt directly consequent on the disturbance of the endocrine balance and readjustment in metabolism and function at this period, thyroid either alone or combined with ovarian substance is found useful.

Obesity:—In all cases of obesity except due to those of over-eating, thyroid has been found useful.

Rheumatism:—Thyroid either alone or combined with sodium salicylate is found to be effective in rheumatism particularly in acute cases.

Senility:—In the treatment of senility thyroid is a mainstay.

Skin Diseases:—In all skin diseases characteristic of hypo thyroid state, thickened and scaly skins, prurigo, psoriasis, ichthyoses, chronic eczema, leukoderma, etc. thyroid is good.

Toxemia:—In all toxemia resulting from absorption of endogenous toxic substances as vomiting of pregnancy, puerperal eclampsia thyroid is of value.

The indications to discontinue the thyroid medication are (1) coryza (2) enlargement of the lymphatic glands at the angles of the jaw (3) tenderness of the parotid glands (4) sthenic type of dyspepsia (5) urticaria (6) albumen in the urine. The contraindications of the use of thyroid are (1) marked lability of the vegetative nervous system (2) non-compensative defect of cardiac valves (3) angina-pectoris (4) tuberculosis, later stages (5) chronic nephritis and (6) severe diabetes.

ANEMIAS

BY

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(Continued from the previous issue.)

The one other type of anemia which is most elusive is the pernicious anemia. The causes ascribed to it are legion. Of late we are told there is an internal secretion of liver which specifically acts on bone marrow in pernicious anemia; and a defect of this element is the cause of this type of anemia but, clinically, we find certain cases of pernicious anemia are not benefitted by Murphy's treatment with either liver substance or liver extract. That indicates that this extract is not the end all and aim all in the treatment of pernicious anemia and makes us think that it has its limitations and that there are other factors to be tackled while the internal secretion of liver remains intact. Let us take the causes of pernicious anemia in seriatim:—

(1) Focal sepsis, such as pyorrhea alveolaris tonsillar concealed abscesses or localised infections of intestinal tract. These are supposed to act through deranging the digestive functions and infecting the food material, producing poisons causing anemia; but there are a large number of persons who live long with focal sepsis and

all do not develop pernicious anemia. (Hurst).

(2) Intestinal toxemia:—Either due to toxins elaborated by micro organisms or chemical products produced by decompositions and synthesis of food bye-products in the intestine or the abnormal action of micro-organisms upon the food products producing certain poisons capable of destroying the blood.

At best, these are speculations: nothing has been definitely proved, but much surmised. No evil material has been recovered from intestine or blood or organism isolated.

(3) Infections of gall bladder with hemolytic organisms as cause of the disease. In some cases, these organisms have been isolated, gall bladder removed and a cure effected. (N. W. Jones and T. M. Joyce).

(4) Achlorhydria:—This is a causal factor, but may be a symptom. In very many cases of confirmed pernicious anemia, achlorhydria was absent. In some cases, however, achylia was present for long periods before symptoms appeared. This does not seem to be very convincing. Whether achlorhydria is an index of the chlorine concentration in blood or a cause has still to be established.

(5) A hemolytic streptococcus inhabiting the intestine producing 2 different toxins, hemolysins producing a destructive solution on the red blood cells and neuro-toxins affecting the central nervous system. The system that is easily affected is that which has a weak constitutional build and having been endowed with less energy to evolve to its full extent and stand the onslaughts of the disease. (Hunter.)

(6) *Bacillus aerogenes capsulatus*: living in the intestines as the cause is the latest much praised theory. At first that mere presence was enough to cause the disease by its toxic action, but now it is believed that the numbers inhabiting the small intestines must be large and much greater than the numbers normally found in all milk drinking population and that

it has its worst effect when the organisms invade the duodenal mucosa (quantitative). The theory is still on the anvil of experiment and should be further examined to be made a fact transmissible to posterity.

(7) Deficiency of a specific factor necessary for normal blood formation together with some constitutional weakness of bone marrow. This theory is based on the fact that the disease is one of abnormal formation of blood. The toxin that is the primary cause of the disease is absorbed from the gastro-intestinal tract. It reaches the liver which has many functions to perform, one of which is the production of an hormone necessary for the maturation of red blood cells, and another being the detoxicating power of the organ and effectively preventing the toxins from reaching the systemic circulation. If infection with the causative organism occurs, the liver successfully handles and detoxicates the poison during the early period of its life (young adult life) but the persistent action of the toxin gradually damages the liver that it then at middle life allows it to enter the circulation reaching all organs. Now the functions of the liver are lowered and that concerned with maturation of cells (i. e.) production of an hormone, is also lowered. This process does not occur in a single day or in a short period. As the efficiency of the liver falls, the hormone concentration in blood also falls when it reaches a value which cannot effectively prevent the bone marrow from discharging immature cells into circulation. This breaking point is called 'hormone threshold.' Till then, immature cells do not appear in circulation. If the central nervous system has been built on a slender basis and is weak, it is affected early by this gradual failure of detoxication and entry of toxin into the blood. This accounts for the derangements of central nervous system marked by sub-acute combined degeneration while there is no blood change, the degree and the intensity of the lesions depending on

its inherent weakness. If on the other hand, bone marrow is inherently weak, the early symptoms are those of blood abnormality. It is only in the case where liver is early affected and symptoms of abnormal blood production is evidenced that liver extracts or liver substance can be of any value. While the bone marrow is efficient but lacks the liver hormone, liver extract administered immediately supplies the want and a remarkable change to normal in the blood picture is achieved. If on the other hand, the marrow is damaged and weak, the extract has no value. The damage to bone marrow may arise from heredity or other causes. And liver extract is an indicator to show which of the three tissues is damaged.

Lastly we come to anæmias caused by utter exhaustion of bone marrow to produce red blood cells or invasion of fibrosis of the marrow through metastatic or primary tumours or other diseases, then a condition of aplasticity arises and this is called aplastic anemia.

In children again, a type of anæmia resembling the adult pernicious anæmia called 'anæmia gravis' occurs.

The pathology of pernicious anæmia briefly is emaciation, bloodlessness, petechial hemorrhages, yellow colour of fat, local edemas, enlargement of spleen, fatty degeneration of heart muscle and deposit of iron in all parenchymatous cells of body, more so in liver, kidney and spleen, erythroblastic reaction of bone marrow, Price Jones's curve of red blood cells, achlorhydria, presence of normoblasts, megakaryocytes, poikilocytes, anisocytes, megalocytes in blood, increase of hemoglobin and decrease of chloride content of blood as opposed to the decrease of hemoglobin and increase of chloride content blood in dithionite anemia, degeneration of the antero-lateral tracts of the spinal cord, reduction of red blood corpuscles to 1 to 1½ millions, fall of white blood corpuscles to 1500 to 2000 and increase of lymphocytes, and presence of bilirubin in blood.

Another form of anæmia is the familial hæmolytic icterus dependent on excessive fragility of the red blood cells, and this is characterised by a moderately enlarged spleen.

One very ill understood type of anæmia is the splenic anemia of Banti, with its very large, porous spleen, cirrhotic liver, thrombosed splenic vein, anæmia and ascites. In this class may also be included Gaucher's Splenomegaly which is nearly a new formation.

Lastly, there is a type of anæmia called sickle cell anæmia, a familial and hereditary disease confined to the coloured races (negro).

The cause shall determine the treatment: these fall into administration of iron compounds, blood transfusion, liver extracts, detoxication of intestinal contents, alteration of the intestinal flora, hydrochloric acid medication, removal of focal sepsis and others which are known to everyone and need to be mentioned in detail.

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Abstracts

ASTHMA

(A NEW CHEMICO-PHYSICAL
CONCEPT)

BY

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Asthma is a manifestation of inherited disease, caused by the arrest of enlarged and agglutinated (hydrated) serum-protein particles in the perivascular lymphatic vessels, capillaries and arterioles of the lungs. The two main factors causing the hydration

are a familial chronic intestinal intoxication and malcoordination. Treatment, to be effective, must be aimed at checking the intestinal intoxication and at teaching the patient the correct use of his body; all other remedial measures being merely palliative.

Asthma is not a disease nor even a clinical entity, because it merges into pulmonary shock (pulmonary collapse) when the hydration is more pronounced than usual and into broncho-pneumonia when the hydration is less pronounced than usual. When the hydration reaches its maximum, the lungs are collapsed and bloodless, but the bronchioles are not constricted. Constriction of the bronchioles may be more marked in broncho-pneumonia than in asthma; consequently asthma is not a phenomenon solely dependent upon constriction of the bronchioles, as is usually thought.

Furthermore, there is no sharp dividing line between the usual expiratory dyspnea of asthma and the usual inspiratory dyspnea of pneumonia. The type of dyspnea is regulated by the chemico-physical changes pertaining in the blood. In extreme hydration there is both inspiratory and expiratory dyspnea. When hydration prevails the dyspnea is mainly expiratory because the red blood corpuscles remain unoxygenated. When dehydration prevails the dyspnea is mainly inspiratory, because energy, possibly electrical, is released. As hydration and dehydration frequently occur concomitantly, and one chemico-physical change prevails at one time and the other at another time, it happens that the dyspnea may be interchangeable.

Extreme hydration results in complete inactivity of the cells in the region where the protein particles are precipitated. Where nerve tissue is involved, paralysis occurs and this, in part, accounts for the absence of constriction of the bronchioles in pulmonary shock, collapse or atelectasis. When the hydration is moderate, hyperactivity of the cells occurs. Hyperactivity of the cells of the *alveoli*

causes a desire for more rapid interchange of gases, which cannot be satisfied, owing to the lungs being either depleted of red blood-corpuscles or containing those incapable of being oxygenated. This naturally results in expiratory dyspnea. Hyperactivity of the cells of the bronchioles causes hypersecretion of mucus. Owing to the expiratory dyspnea, the mucus collects in the bronchioles, and cannot be expelled. Hyperactivity of the nerve tissue causes a constriction of the bronchioles but as the constriction is less pronounced than that occurring in pneumonia, as a result of the surrounding edema and collection of leukocytes, nerve influence does not play the role in asthma usually assigned to it.

ATROPINE AND EPINEPHRIN.

Asthma is a symptom of vagotonia merely because vagotonia is the clinical expression of hydration of the protein particles in the plasma. Asthma is not due to stimulation of the vagus, and atropine does not benefit asthma by paralyzing the vagus. As a matter of fact, atropine may aggravate an attack of asthma because, owing to the large size of the nucleus of the vehicle, its primary action is one of hydration. Any aggravation of an already existing hydration may precipitate an attack of asthma, and this is the explanation of what is called hypersensitiveness. Removing the sensitising agent no more than palliates the condition, because it does not touch the cause of the initial or preexisting hydration. Skin tests or allergic reactions are naturally valueless because, although they may lead to the detection of excitants, they blind the eye of the observer to the fundamental cause.

Adrenalin (epinephrin) is useful in asthma merely because it causes dispersion of the hydrated protein particles. It has no direct action upon the sympathetic nervous system, therefore it is incorrect to regard the palliation of an attack of asthma as occurring through the stimulation of this system. The disper-

sion effect of epinephrin is not so good as that of some of the other drugs mentioned below and, when used over a long period of time, it makes the asthma worse and sets up a condition akin to morphinism, owing to hydration being the final action of most drugs.

Asthma, occurring in children, is frequently indistinguishable from and is associated and interchangeable with broncho-pneumonia, because, in children, hydrated protein particles readily undergo the cyclical change of dehydration. This explains, also, why asthma, occurring in childhood, tends to vanish when the child reaches adult life. Asthma in children is invariably associated with one or more of the cardinal signs and with other symptoms of inherited disease, and the condition readily responds to appropriate treatment.

Asthma in middle life tends to occur in attacks. It is usually only one of several clinical manifestations of inherited disease, but although it does not respond to treatment quite so readily as does the previous type, nevertheless much may be done for the patient.

Asthma in the later decades of life is apt to be chronic, as opposed to occurring in attacks, and to be associated with pulmonary fibrosis. Pulmonary fibrosis is the result of chronic dehydration; and dehydration, existing over a long period of time, ultimately undergoes the cyclical change of hydration. This type of hydration tends to be permanent, hence explaining why the asthma is chronic.

Cardiac asthma is a sign of a failing heart; and a heart fails when hydrated protein particles become precipitated in the vessels of the myocardium.

DRUGS RECOMMENDED.

The drugs best suited to palliate asthma depend upon the type presented. Asthma, in children and occurring in attacks responds best to the use of conductors, of which "Sup. 36" is the best, provided the injections are made as early as possible. If an

attack has been present for some time, or occurs as a result of cardiac failure or of adrenalinism, drugs combining a conductor with a dehydration action are required, such as "Sup. 468," Parathormone, strontium and calcium aspartate, acetyl-choline, etc.

In chronic asthma, dehydrators are called for, such as iodine, ichthyol and thyroid substance, prescribed internally; contramine, injected intramuscularly; and oxygen, injected subcutaneously.

Asthma will disappear finally, only if the patient becomes co-ordinated and is relieved, as far as is possible, of the intestinal intoxication. Co-ordination is achieved best by the method practised by F. M. Alexander, and mentioned in his "Constructive Conscious Control of the Individual". To rid a patient of his chronic intestinal intoxication, it is necessary to diet him; to see that he has the bowels open twice or thrice a day; to wash out the colon, to as far back as the ileo-cecal valve; and to prepare and administer a vaccine from the pathogenic microorganism found in the excreta. The most common pathogenic microorganisms are the so-called non-lactose fermenters, including the *Bacillus proteus hydrophilis*, mutation forms of the non-pathogenic *Bacillus coli communis*.

To rid humanity of asthma it would be necessary for every one to select his own great-grand-parents.

For fuller details of this and other manifestations of disease, the reader is referred to the author's two volumes on "The Nature of Disease," published by W. Heinemann, Ltd., London.—*Clinical Medicine and Surgery—February 1930.*

PROMISCUOUS CIRCUMCISION.

Nature may, possibly, make mistakes, at times, though we have never seen any of Her works which we were convinced were superfluous or ill adapted to their purposes. It seems much more reasonable to believe that

men even wise ones may sometimes be in error.

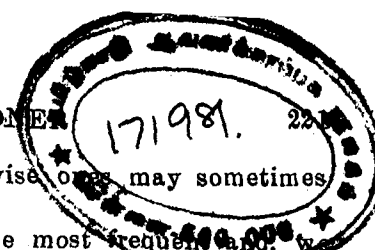
One of the most frequent and, we feel, unjustifiable, attempts of men to improve on nature is the practice of promiscuously circumcising all male infants whose parents can be cajoled or browbeaten into permitting the sacrifice of a part of their little boys' anatomy which was put there for a good and sufficient purpose and whose removal is, not infrequently followed by unpleasant results in later life.

So common has this operation become, and so effective has been the propaganda in its favour, that even normally intelligent persons look upon it as a legitimate and worthy part of the service rendered in a first-class lying-in hospital.

What is the basis of this custom? Laziness, chiefly, except, of course, when the operation is performed as a religious rite. It is easier for the surgeon to cut the fore-skin off than it is to treat it conservatively. It is easier for the mother or nurse to bathe the infant or child when no special attention need be given to the cleanliness of the penis.

A neglected prepuce is sometimes but rather rarely a source of annoyance or even danger; but so are the teeth and the toenails. Would we think of removing these organs from a child because they may, later, come to be a source of annoyance or even illness?

The prepuce has a function to perform, in fact, two functions: It protects the delicate mucous membrane of the glans, where many of the genital corpuscles are located; and it carries, on its own inner surface, a number of these organs of sex sensation. Its removal may seriously interfere with this highly important function in later life, even resulting, at times, in impotence, with all its distressing sequels, and almost always in a serious diminution of this sensation, whose preservation has much to do with domestic happiness. It would not be at all fantastic to consider the-



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wholesale slaughter of foreskins as one of the factors in the increase in the number of divorces.

The same results obtained by circumcision (except the elimination of the necessity for washing the penis regularly) can be gained by less radical measures, and we feel that male infants should be given this chance, even at the cost of a little more time and trouble on the part of the physician and the mother.

When an adult man feels that the organ under discussion is not worth the effort it takes to keep it in a healthy condition, he should, of course, be permitted to part with it, the same as he can give up his teeth or his hair, if these annoy him. And then there are, occasionally, surgical conditions which demand its removal, as there are those which require the amputation of a breast or a hand.

What we heartily protest is the routine, thoughtless and unnecessary mutilation of a large percentage of the male infants of those non-Jewish families whose status is sufficiently good (or bad) to permit the use of a hospital at the time of confinement, under the guise of a hygienic measure and the impulse of a superstition.

(Clinical Medicine and Surgery—
March 1930).

Notes on Treatment of Diseases.

N.B.—These notes are intended to supplement the treatment given in ordinary text books and neither to be expected nor possible to be exhaustive.

Ascites:—Injection of adrenaline is good. In cases of cardiac or renal origin repeated tapping followed by the administration of adrenaline 1 in 1000 from 8 ms to 2 drams by intraperitoneal injection has a marked effect in the disappearance of ascites (*Sajous and Modern Medicine*).

2. Continuous drainage is good in cases of cirrhosis of the liver. Through the canula used in tapping a small catheter or tube is inserted and kept in position with zinc plaster and

clip is used in regulating the flow. (*Practical Medicine*).

3. In hepatic disease novasurol intramuscularly and ammonium chloride orally from 0.75 to 1.50 grams in capsules (*Year book 1926*).

4. In cirrhosis of the liver ammonium chloride, grains 30, 3 times a day and after a few days novasurol l. c. c. intramuscularly or intravenously (*J. A. M. A.*)

5. Myxedematous In some cases thyroid is found effective (*J. A. M. A.*)

6. In tubercular and hepatic diseases—acetyl salicylic acid or phenyle salicylate in some cases gives excellent results. (*J. A. M. A.*)

7. Ascites and other edemas: Salyrgan is better than novasurol. (*Endocrine Survey*).

8. A dram of adrenaline chloride solution 1 in 1000 with $\frac{1}{2}$ per cent of chloretone in two drams or $\frac{1}{2}$ ounce of sterilised water is injected through the canula when the serous exudation has been withdrawn (*Langdon Brown*)

Asphyxia-Neonatorum:—This relieved by injecting adrenaline 1 in 1000 into the stump of the chord (*Sajous*).

2. In older people to restore respiration tongue is grasped with forceps and pulled well forward from ten to fourteen times a minute until voluntary respiration returns.

Auricular-Fibrillation:—(*Flutter*) Any case of toxic cardia with a heart rate exceeding 130 per minute is nearly always associated with auricular fibrillation and any persistent arrhythmia coupled with advanced cardiac involvement is dependent on auricular fibrillation 8 m.ms. of adrenaline 1 in 1000 to be given intramuscularly in a syringe full of saline solution slowly and repeated if necessary. It may be followed by internal administration of 2 grains of suprarenal glands twice a day (*Sajous*).

2. Quinidine sulph is good (*Practical Medicine*)

Aneurysm:—Subcutaneous injection of gelatine 40 injections of 1 dram doses.

Notes on Diagnosis Therapeutics and other Medical Subjects

Differential diagnosis of gastric and duodenal ulcer:

Gastric ulcer:—(a) may occur at any age after childhood (b) females are the chief sufferers, (c) gastric hæmorrhage often occurs preceded by other gastric symptoms, (d) blood may appear in the stools usually after hæmetemesis, (e) the blood in the dejections is dark and tarry from the action of the gastric juice (f) pain paroxysmal generally influenced by taking food, pain sharply localised in the epigastric region about two inches below the ensiform cartilage, usually it is aggravated by taking food, (g) gastric crises come on soon after taking food, (h) vomiting more common during painful crises and affords relief, (i) jaundice entirely absent, (j) usually marked improvement follow change and regulation of diet, (k) painful point (between the 10th and the 12th dorsal vertebrae on the left side) usually present.

Duodenal ulcer:—(a) usually occurs between 20 and 40 years of age except when due to external burns (b) males are more frequently affected than females in the proportion of 10 to 1. (c) onset marked by intestinal hæmorrhage which may recur at intervals of varying duration (d) the melena may be preceded by or accompanied by hæmetemesis though not generally (e) blood in the discharges is bright; red, profuse but not so marked as in gastrorrhagia, sometimes dark and tarry from the action of chyme when slight (f) pain due to acid may come on late 2 to 4 hours afterwards and occur in separate attacks with intervals of apparent recovery. It is localised a little above or to the right of the umbilicus, pain relieved by eating owing to absorption of acids and closure of pylorus (g) gastric crises occur without reference to the time of taking food. (h) vomiting is incessant without relation to ingestion of food and affords no relief (i) jaundice occasionally presents from

the occlusion of the bile duct. No marked improvement after diet has been changed and regulated; pain disappears suddenly after erection after taking half a litre of milk (k) dorsal pain absent.

Coated tongue:—This tongue does not indicate any disease but the state of the patient. A chronically coated tongue with fecal odour of breath is an almost certain indication of the incompetency of the ileocecal valve and of the need of change of the intestinal flora (*Kellog*).

Arcus Senilis:—This is a misnomer and is seen even in young persons. It is due to the infiltration with fat and the degeneration of the elastic tissue of the cornea and is caused by error of refraction especially in young. (*Leonard Williams*).

Blue sclerosis. This is associated with brittle bones and progressive deafness. It is supposed to be a sign of delicate health when seen in young children (*Leonard Williams*).

Sore-Buttock. This is due to carbohydrate indigestion in children; the stools are acid and green. In infant stools casein curd is larger with unchanged fat in its meshes. It sinks in cold water and hardens in 10 per cent solution of formalin in 6 hours. Fat curds are small and soft and they are associated with green and yellow mucus and remains suspended in water and does not harden in formalin (*Leonard Williams*).

Dr. S. R. BHAT, M.B.B.S., L.D.S.C.

(Calcutta.)

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News and Comments

In the Fort. St. George Gazette of the 15th April last the appointment of 11 Honorary Sub-Assistant Surgeons are notified. Evidently the appointments were made under the scheme of Honorary Surgeons and Physicians sanctioned in G.O. 1373 P. H. of 31-5-29. If so, the appointments in question and others already made are in violation of every rule of the order. It is not meant by this, to find fault with the Minister who has shown in making these appointments his resourcefulness, but to state that the order was badly framed and vaguely worded indicating that the framers had no clear idea of the scope and object of the honorary scheme. The important instance of the resourcefulness of the Minister is the creation of a new species of honorary officers viz. Honorary Sub-Asst. Surgeons neither contemplated nor stated in the order. In paid appointments, holders of L. M. P. qualifications will have to put up with the designation of their office as Sub-Asst. Surgeon but it is beyond the comprehension of any, why in honorary appointment this humiliation is dragged and broadcasted by notification in the Fort St. George Gazette? and why these appointments should not have been included in the class of Honorary Assistant Surgeons and Physicians even though selected L. M. Ps. are promoted to civil asst. surgeon cadre in the paid branch of the department.

Anomalies are the monopoly of the Madras Medical administration but they have crept into the University also in connection with the medical degrees. Already in previous issues of the journal several anomalies were pointed out in the scheme of honorary appointments and two more instances will now be given. The old L. M. & S. degree holders whose course of study extended only 4 years are allowed to appear for the M. D. and M. S. degrees but not the L. M. S. degree holder of the Transitory Regulation though the

course of study for them is extended to 5 years similar to that for the M. B. B. S. degree. Is it because the extra one year course the new L. M. & S. degree holders take, detracts the merits of the four years' course? Another instance is with reference to the change of designation of a degree from Latin to English for which an examination has to be passed. The C. M. of the old M. B. & C. M. degree is the abbreviation of the Latin *Chirurgiae Magister* and when translated into English language read Master in Surgery. Now in order to get the M. S. (Master in Surgery) degree the old M. B. & C. M. degree holders are required to undergo an University examination and pass it. Nothing more ludicrous than this can be conceived.

In the last session of the Legislative Council, Dr. Mallyya rightly contended that there was no necessity for a full time professor of Medical Jurisprudence. He is expected to give about 20 to 30 lectures in a term of a few months in a year. There is no separate full time professor of Chemistry in the Medical College though the course extends, throughout the year and the Chemical Examiner is found, to have sufficient time to teach the subject, in addition to his other duties. In Calcutta lectures on Medical Jurisprudence are given by the Police Surgeon, in addition to his other duties and we do not see why in Madras a full time professor is thought necessary. We strongly condemn such appointment, as it appears to us nothing but jobbery.

The Government seems to have passed recently an order, restricting the appointment of medical officer, for the medical inspection of schools, to medical graduates in general and to B. S. Sc. degree holders in particular. We would like to know whether the order was passed to advance the scheme of medical inspection of schools which is found to have not

made any progress at all, or in the interests of the B. S. Sc. degree holders who have been complaining and waiting on deputations on the authorities about the want of encouragement shown to them by not employing them in larger numbers. There are now about 761 Secondary Schools and 46873 Primary Schools besides Colleges in the Province. To appoint medical graduates to inspect all these schools is impracticable, much more if B. S. Scs only are to be appointed. Nor the graduates including the B. S. Sc. would be satisfied with the pay given for such inspection. So, in point of view of the progress of the scheme, this arrangement cannot be expected to advance it. Coming to the graduates, they would not be satisfied with the small allowance, more correctly "wages" doled out for the inspection. As regards the B. S. Sc. degree holders, there are about 20 still unemployed and in the absence of scope for their employment in the Public Health Department, the chances are that very few candidates will seek admission into the B. S. Sc. class. When these graduates are complaining and waiting on deputations that their claims have not received adequate recognition in the Public Health department and Public Health Branch of the Guindy Institute and other institutions for which they are best suited, to offer them the duty of medical inspection on daily wages is, we are driven to think, an insult to them. To deny the L. M. Ps. who are found fit to diagnose diseases and treat patients successfully, the medical inspection of schools is unfair. We should like to know the qualifications of the doctors who returned "nil" under the heading "Malnutrition" in the medical inspection report of schools in Anantapur, T. T. V. High School, Muthialpet and Pachaiyappa's High School, Madras and 0.15 in Cuddapah? Medical inspection of schools requires special training and to undergo that training the L. M. Ps. are as fit as the graduates. If it is the intention of the Government, to

provide medical inspection of all school-going population, the necessity and importance of which were pointed out in one of the editorials of this issue, it is absolutely necessary that all medical men, L. M. Ps., Medical graduates, including B. S. Scs. should be given a few months training in medical inspection and employed.

Major K.G. Pandalai, I. M. S., second Surgeon, General Hospital, Madras got on 17-4-1930 Rs. 6,500 as damages in the suit filed by him against the S. I. Ry. Co. for having sustained injuries to his right middle and ring fingers on 9th May 1929, while he was travelling by the Blue Mountain Express when the shutter of a window fell on the fingers which were resting on the sill and fractured those two fingers. We heartily sympathise with the Major for the serious damage caused to his fingers disabling him at least for 2 to 3 years (according to his own statement) to have a firm grip to use instruments such as a hammer and a wrench and preventing him from even putting knots.

The damages claimed by Major Pandalai were Rs. 10,000, really a very small amount compared to the loss he must have sustained in not being able to do operations as satisfactorily as he could have done before the injury. He must have reckoned these damages on the loss in private practice but what about his inability to use these two fingers while performing the responsible duties of a surgeon in the premier hospital in the city of Madras?

In public interest, the Government must have filed the plaint or at least must have been taken as co-plaintiffs and Major Pandalai ought to have been granted leave for 2 or 3 years, the period required for him to use his fingers which according to the statements of two other experts cited as witnesses by Major Pandalai could never be used as satisfactorily as before they were injured. The Hon'ble Mr. Justice Eddy would

have in this case granted whatever damages claimed and the amount would certainly have been a lakh or more considering the permanent disability caused by the injury. Unfortunately evidence was let in that Major Pandalai's monthly income from private practice which was Rs. 385 in January 1928, that is before the date of accident, rose to amounts ranging from Rs. 2,381 to Rs. 4,765 afterwards.

There would have been more responsibility and justice if damages were claimed by Major Pandalai on public rather than on private grounds. Now that the damages have been awarded by the Court in consideration of the loss sustained by the Surgeon in his private capacity, cannot the Government interfere and claim damages from the S. I. Ry. Company for depriving the patients in the Hospital entrusted to his care, of the services of Major Pandalai in the matter of operations involving the use of a hammer or a wrench etc. The first step ought to be, to relieve Major Pandalai of the duties of the Surgeon and entrust him with such work where he has not to use these two fingers or grant him leave with full pay till he is able to use those fingers efficiently. Major Pandalai will not suffer either way and all concerned will have the benefit of "fair-play."

We are receiving enquiries regarding the recent decision of the General Medical Council in not recognising Indian University qualifications as to whether this decision would have retrospective effect. Though nothing is impossible in these days we hope that the General Medical Council will not be so unreasonable and unjust as to give retrospective effect to their decision.

Here below we reprint information on this subject as published in "The Hindu" dated 18.4.1930:—

"ASSOCIATED PRESS OF INDIA",

Simla, April 17

An enquiry had been made of the Secretary, Conjoint Board, College of Surgeons and Physicians, England with regard to the effect of the non-recognition of Indian Medical Degrees on medical graduates from India who wish to sit for membership examination. A reply has been received by wire that regulations for L.R.C.P. and M.R.C.S. are not affected by the decision of the General Medical Council. Similar enquiries are being made by the Government of India of other medical institutions and examining bodies in the United Kingdom.

"A DOCTOR'S VIEWS"

A prominent medical authority in Madras interviewed this afternoon regarding the effect of the General Medical Council's decision, stated that the non-recognition of the Indian degrees would affect only those Indians who wanted to practice in England and those who desired to enter the Indian Medical Service. This decision would also bar Indians with Indian Medical Degrees from practising in the British Colonies and stated that this would preclude a large number of Indian Doctors now practising in the F.M.S. in Ceylon and South Africa.

He was glad to note that the Secretary, Conjoint Board, College of Physicians and Surgeons, London had stated that the regulations for L.R.C.P. and M.R.C.S. were not affected by the decision of the General Medical Council. But he believed that though Indians with Indian Degrees were not prohibited from

higher medical studies in England, the authorities in England might make higher medical studies for Indians more difficult and more costly than now.

Compounders and midwives as Chloroformists have been the subject of many enquiries by the mofussil practitioners for some time and we have been hesitating to comment upon this, as we knew as a matter of fact that both these are the only Chloroformists assisting the Doctors in Mofussil hospitals in surgical and midwifery practice and any comment might either be superfluous or uncalled for. We requested our readers to refer this question to the Surgeon-General with the Government of Madras who is the highest authority in these matters as the head of the Medical Department and also the President of the Medical Council. They would not do so. Our next suggestion will be that this subject may be referred to the Medical Council, as in such matters their decision is final. We would quote a para for the guidance of those who are interested in this subject, appearing under the heading "Unqualified Assistants and covering" in the code of ethics published by the Medical Council and it runs thus:—

"The employment by any registered practitioner in connection with his professional practice of an assistant who is not duly qualified or registered, and the permitting of such unqualified person to attend, treat, or perform operations upon patients in respect of matters requiring professional discretion or skill, is in the opinion of the Council, in its nature fraudulent and dangerous to the public health; and any registered practitioner who shall be shown to have so employed an unqualified assistant is

liable to have his name erased from the Register."

Some of the mofussil practitioners make a suggestion that the Government should equip Taluk Headquarters Hospitals with microscopes which should be made available to private practitioners also. The idea is not bad but seems to be impracticable in the present state of affairs. Those who are in the good graces of the doctor of the hospital will not have any difficulty in availing themselves of the use of the microscope while others will not be able to use it. There is now a rule that instruments in the government hospitals may be lent to private practitioners. Nobody minds to apply for these instruments and even when applied for, they may not be always available as they are required for use in the hospitals themselves. We could suggest that practitioners cultivate in them the spirit of "one for all and all for one", and it will be quite possible for them not only to have microscopes but every other equipment for successful private practice. Self-help is the best policy.

A co-operative society was started in Madras a few years ago and shares were collected from Doctors not only in the City but also in the Mofussil. We learn that the Society has since been wound up. We are having some enquiries from Mofussil Doctors who have bought shares in this Society. We shall be obliged to the old office-bearers to make a statement for the benefit of the share-holders of the Society. It is really regrettable that this society had a premature death. Causes must be ante-natal. Why not prevent them and conceive of yet another society on sounder basis?

Vaccination of 3rd class passengers leaving the ports of this presidency seems to be a monopoly. In Madras, Messrs. Binny & Co. who are shipping Agents for a number of firms, have a

doctor in their premises who gets a fee at the rate of 6 annas per passenger vaccinated by him. Even if vaccination is not done on the plea that a particular passenger was recently vaccinated, the same fee is charged and certificates issued by other registered practitioners are not valid at Binny's Office, though legally they are valid as per terms of the Madras Medical Registration Act. Nobody can object to Messrs. Binny & Co. having a practitioner in their premises to look after the passengers, but why should this doctor charge 6 annas the passengers who get themselves vaccinated outside and own certificates issued by registered practitioners?

At Negapatam, matters seem to be worse as the vaccination certificates are to be issued by the Civil Surgeon charging at the rate of Rupee one for each certificate. The work is usually done by his subordinates and we have no idea if these get their shares. When times change, customs also have to change. When the vaccination restriction was first introduced in the Negapatam and other Port Offices, there were not then available any other medical men except the state paid doctors. Now that Negapatam and other ports are flooded with qualified and registered practitioners, why should the state paid officers monopolise this privilege. Such monopolies are against the spirit of the times and have a baneful effect on the medical profession as a whole.

Some of our readers in the Mofussil have enquired of us if they can get books for reference from the Lending Libraries at the District Hospitals. One of such is a local fund sub-assistant surgeon, and others are private practitioners. We refer them to the Civil Medical Code to know the full details of these libraries. These libraries were originally started for the entire benefit of the medical staff under the employment of government and local bodies and a yearly subscription ranging from Rupee one to

Rupees six per year has to be paid by those depending on their pay. Registered private practitioners may avail themselves of the use of these libraries on payment of Rs. 5 a year by the practitioners with university qualifications and Rs. 3 by those holding L.M.P. diplomas, and the District Medical Officer has been given discretionary powers to admit or refuse the applications from registered private practitioners.

It has ever been the lot of our country that even in the matter of patriotism, stimulus has to come from outside. As was pointed out in these columns in April, those that are likely to suffer from the decision of the G.M.C. are a small minority of the Medical profession in this country. None of the present patriots in the medical profession thought that it was their duty these several years even after the Provincial Medical Councils came into existence to protest against the invidious distinctions regarding rights and privileges of the medical practitioners and have been tolerating the differential treatment meted out in all professional matters, be it appointments or other positions in public life, in spite of the fact that in the matter of registration at least all were treated alike for the payment of the registration fee. If these patriots were alive to their responsibilities to their less fortunate brethren in the profession, who form the largest group amongst the registered practitioners in this country and had lifted them up and brought out a minimum standard of qualification for all alike as is the case in other civilised countries and brought about harmony and contentment in the rank and file in the profession, the G.M.C. would not have dared to treat the medical profession in the way they have done now. As in politics, so also in the medical profession communal disharmony is the biggest barrier for progress and unity of action: the communities in the medical profession are not on account of birth but different educa-

tional standards. We have our own doubts if the proposed All-India Medical Council will have the desired effect in bringing about harmony in the profession unless Sir Nilratan Sircar and others of his school of thought change their minds regarding the need of different standards of education in this country and divert their zeal to this aspect of the question. If they do not, the spirit of boycott inculcated by them may turn homewards.

It is rumoured that a Junior Assistant Surgeon who has returned or is likely to return soon from England is to be appointed as the Resident Medical Officer, General Hospital, a place formerly reserved for an I.M.S. Officer. There has been a craze for the last two or three years in the Medical Department for English qualifications, and if we analyse this craze and go deeper we see that it is not enough to hold special English qualifications to get these special appointments superseding the claims of equally qualified and senior in service, but the holders of these qualifications should be pets of a Senior Officer who is powerful enough to hold the strings of the administration of the Department to create new posts as opportunities arose to shove in his prodigy in a place which he could not hope to occupy in the ordinary course of events either on merit or seniority or special qualifications.

When Europeans with I.M.S. qualification were holding the post of the Resident Medical Officer, General Hospital, agitation was rightly brought about and the late lamented Rajah of Panagal was able to put down this monopoly by appointing to this place an Indian with I.M.S. qualification, who discharged his duties quite satisfactorily. It is inconceivable that in 1930 the Government could not find a Civil Surgeon or a Senior Assistant Surgeon who could do justice to the work of

Resident Medical Officer of the General Hospital. We trust, however reliable our information is, that the Government will not give room to discontentment in the provincial service by such appointments and that due consideration will be given to seniority and merit irrespective of the English or non-English qualifications, as is the case in the other Departments of Government not only in British India but also in the Native States where we find the good and time-honoured principle of merit and seniority had not been overlooked at all.

Correspondence, Reports Reviews etc.

LETTERS TO THE EDITOR.

(1)

Sir,

I write to thank you on behalf of my association for the warmth with which you have espoused the cause of rural medical men in the editorial columns of the March issue of "*The Medical Practitioner*" and hope that you would continue to do so, as our cause is part of the cause of the Independent Medical Profession.

While all your remarks therein are well-informed, please permit me however to correct one observation of yours on the appointment of midwives to rural dispensaries. It is not a fact that these midwives are now required to be appointed by the District Medical Officer. Clause 7 of the Agreement, G. O. No. 1994 P. H. dated 28-9-1925 stipulates that 'if the practitioner shall engage, maintain and employ a qualified midwife.....the taluk board shall pay the practitioner an additional subsidy of Rs. 100 per year payable in twelve equal monthly instalments.' As qualified midwives could not be had to serve on Rs. 8-10-8 per month, Government were pleased to order in G. O. No. 942 P. H. dated 6-4-1929 an enhancement of the midwives' subsidy to Rs. 25 per

month, directing however that 'this enhanced subsidy shall be paid direct to the midwife through the District Medical Officer, instead of through the practitioners who engage them as was done hitherto'. The italicised portions are significant and there is nothing in the new G. O. either implied or explicit, transferring this power of appointing a midwife to a rural dispensary from the practitioner to the District Medical Officer, nor has the original clause 7 in the agreement been amended to such effect. The power still vests in the rural medical practitioner though it is a fact however, that some Taluk Boards and a few District Medical Officers deny it to their rural medical men, which will only go to show that so far as these practitioners are concerned, the local authorities are not disposed to 'give unto Caesar, what is Caesar's due'. I will also add that my Association has protested against this and has appealed to the Government to vouchsafe to us the power.

S. RAMASUBBU, L.M. & S.
Secretary,

VIRAGANUR, } The Madras Provincial Rural
Salem District, } Medical Practitioners'
19-4-1930. } Association.

(2)

Dear Editor,

I am extremely delighted to go through *The Medical Practitioner*. Since you seem to be interested in "State-paid medical officers and private practice and Medical Relief of the civil population by honorary officers," I may give you my views of these two problems, gained out of an intimate acquaintance with mofussil conditions for the last six years I have practised here.

The congestion and overcrowding of medical men in cities of first and second degree of magnitude can be avoided by extending the system of Honoraries to the smaller towns like Taluk Headquarters. These smaller places are now practically the mono-

poly of the individual Assistant-Surgeon whatever may be his professional abilities; because he has a staff, building, appliances etc. in addition to a retainer in the shape of a princely salary and the support of a few locally rich and influential people who get his services for a ridiculously low sum which can never be the case if he had been an independent practitioner with a status to maintain and a pretty big family to feed. So he is able to stifle the growth and rising of any private practitioner unless one be a very rich man which is not the case in ninety-nine cases out of hundred of students who pass out of our schools and colleges.

I have practised here as a general practitioner for the last six years during which time I have had occasion to meet with all types of patients and to handle every variety of cases. I have travelled in jolting juktas and in slow moving country bullock-carts, walking and wading through fields and rivers and I may tell you that the poor Indian ryot is willing to pay you to the utmost of his capacity if you treat him kindly. He hates red-tapism. Our hospitals are not now popular because they are not manned by doctors who have to eke out their living by making the hospital popular.

State-hospitals are now giving indiscriminate charity and so the really deserving people are not getting charity because they are the "dumb millions" and they cannot talk and clamour for them.

People of the locality are best fitted to know who deserve charity and who do not—the state paid officer who is frequently transferred is not able to know this nor has he the necessity to know; he is only popular with the elite of the town and he does not care for the poor patients who go to this hospital, so much so the task of doing the major portion of the charity work falls on the independent practitioner who on account of his position cannot refuse to do the work

and give room to an impression that he is hard-hearted or avaricious. I can quote a few instances from my personal experience. A clerk drawing twenty rupees per month takes his son with a big abscess in the abdominal wall—which has opened of itself, to the hospital. It is disposed of in the O. P. Department with Chit "Clean and dress". The natural opening was too small; there was pus located inside. At 12 p.m. in the same night the boy gets a rigor, the parent has not the courage to wake up the assistant-surgeon but goes to a practitioner like myself. I respond to the call, sterilize and freely open up the abscess. I earn a fee of Rs. 2 for the work and material used for dressing. Do not misunderstand me. I am not complaining of the fee. That is more than what he can afford. I will not even accept this if my lot had been better. Next day he takes the patient to me. I tell him "Look here I am roaming from village to village and my energies get exhausted there. If you expect me to do this dressing work, you will have to pay me heavily because daily I will have to wait for your coming to me, spend time for sterilizing the dressing etc. and I have to do these things myself having no staff with me, (I have not got even a compounder) and if I engage a staff, it has got to be paid ultimately by you. So now that the abscess has been opened there is no more danger. Go to the hospital and get this dressed there". The parent replies "If we go there we will not be cared for. If there we will not be cared for. If councillor, President, Taluk Board, Chairman, Municipal Council, Secretary, Local Municipality or rich man goes to the hospital they will be cared for. I will anyhow pay you whatever you demand Sir, consider my position and ask Doctor". I cannot bring myself to ask anything of this man. I know he can ill afford even the sum of Rs. 2. We get many cases like this. I am prepared to take up all this charitable work if all charity cases collect at a particular time and at a particular place and if the state gives me a menial staff to relieve me of the

mechanical part of the work like lighting up the stove, fetching water etc. If I waste my energies over these I have very little time left for doing responsible work. These occurrences can be avoided by debarring the state paid officers from private practice and getting members of the Independent Profession in the staff of the hospital.

I am aware that the Government are trying to extend the system of Honoraries but they have not caught the spirit of the system and they are not earnest about the scheme. If the Government take up this scheme in earnest, all the hospitals in the Presidency can be manned by purely Honorary Officers doing *charity work alone* in the hospitals and earning reasonable fees from the well-to-do rich. I am myself prepared to work as an honorary officer in the local hospital if I am given a status and responsibility and not surely as a *supernumerary always*. The honorary officer also must be given opportunities for post-graduate study in India and also outside, and given allowance to keep himself going during such period only. It is only then that Government can attract young men to work as honorary medical officers.

In small stations there are no private practising midwives, except in a few places, and we private practitioners have to depend upon the hospital midwife and the state-paid officer throws all obstacles in our getting her services. Recently in one case the state-paid officer refused to countersign the memo of delivery which the midwife had to submit because he found there "delayed labour, Forceps applied." He asked who applied Forceps. It was Dr..... The midwife was asked to inform the assistant-surgeon before attending any case in future. The officer probably thought that I had made a couple of hundreds over that case and that I used his midwife to canvass cases for me, though they are contrary to facts. The poor people are usually afraid of approaching Government

Doctors for service as they usually charge high fees. I got only a fee of Rs. 5/—and when I sent the people to the hospital for Ergot mixture it was given after grumbling and mumbling.

I do not know how the Government consider the working of the Rural Dispensary Scheme by subsidising private practitioners—as a success or as a failure. My own impression after meeting in consultation, several times with the members of the five Rural Dispensaries near my station, is that it will work better if certain obstacles are removed;

- (1) They must be pure private practitioners and not be bossed over by semi-demi officers having no professional knowledge.
- (2) The Government must gradually provide a small building (dispensary and quarters combined) because it is very difficult to get a building with conveniences for doing professional work in the villages. This must be rent free.
- (3) So long as Taluk Stations are held by State-paid officers these dispensaries cannot work efficiently because barring a few exceptions, invariably the state-paid officer whom these medical officers have to meet in consultation treats them with scant courtesy.
- (4) The state-paid officer is also able to encroach on their practice because as I told you in the beginning he has a retainer and he is able to lower his fee to any extent. Take the legal profession; although it is over-crowded the quality of its work has not suffered because there is not there unhealthy and unequal competition.

Personally I don't think the medical profession is overcrowded. It may be in bigger towns. It is not in the

smaller towns and not at all in the rural areas. There is enough work for people who freshly pass out of Schools and Colleges and they will be able to settle in the rural areas only if these obstacles are removed.

The more I see the condition of the villages, the conviction is growing stronger in me that unless and until the task of giving medical relief for the civil population is vested in the hands of the Independent Medical Profession, medical relief cannot be made to reach the masses and the money that is now spent on salaries can be better spent on preventive medicine and opening up of more Rural Dispensaries in the interior.

Dear Editor, I have taken much of your valuable space. I have given expression to a few of the random thoughts that *The Medical Practitioner* evoked in me. I have been feeling for these things much but I had to stifle these thoughts for want of opportunities in giving expression to them.

Now that there are signs in the horizon of the awakening of the whole Independent Medical Profession, I assure you that I will stand by you in any battle that you may wage against this injustice.

T. K. V. A. M.B.B.S.

(3)

Sir,

About the same time as Dr. M. G. Subramania Iyer, L.M.P. of Devakotah (please vide his letter on page 172 of the March issue of your journal) I had a similar experience.

I was subpoenaed to give evidence on 12-11-1929 in C.C. No. 883 on the file of the Stationary Sub Magistrate's Court, Salem. While acknowledging receipt of the summons, I wrote to the magistrate that he would be good enough to allow me the usual rates, viz., annas four per mile and a daily batta of Rs. 1¼ calculated on the basis of my subsidy. I attended the Court on the required date, deposed to what I knew and claimed a sum of Rs. 24-4 as due to me at the usual rates. The

magistrate exclaimed that the sum was enormous, (I don't know what he would have thought of it, if he had himself made the journey and claimed the sum) and said that he would look into the rules and give me what is due. I however told him that I had only claimed at the rates given to me on former occasions by other magistrates, and to substantiate my statement, sent him also a witness batta certificate to the effect that I was paid at the rates claimed for a subsequent attendance at another court on 1-12-1929. Notwithstanding all these, the magistrate chose to allow me travelling allowance at only two annas per mile and a daily batta of annas eight only, and sent me a M.O. for Rs. 11-12-0 (deducting commission) on 17-12-1929.

I did not appeal against this as there could be no use of it, in view of the existence of G.O. No. Mis. P.H. 811 dated 27-4-1927 on the subject running as under:—

'The Surgeon-General is informed that Medical Practitioners in charge of rural dispensaries summoned to attend Courts of law on behalf of private parties can only be paid travelling allowance at the rates allowed to non-official witnesses (including private medical practitioners) as they are neither Government servants nor local fund employees.

2. If the rates paid to them are in their opinion insufficient, they should be advised not to take up cases involving their attendance at courts, unless absolutely necessary.'

The first para of the G. O. peremptorily hushes the rural medical practitioners, as they are neither Government servants nor local fund employees'. The second part is not quite intelligible. The classification of witnesses, non-official, for purposes of travelling allowance, according to criminal rules of practice, is,

though depending upon the status and income of the witness mostly left to the discretion of the magistrate. The latter is not bound to believe what the witness says regarding his status or income; in fact he did not do so in my case though he might have very easily verified the truth of my statements. Under such circumstances, unless one actually attends Court and receives his T. A., one can't be sure of what rates he would get, and it would therefore be impossible to foresee such rates, and on that score decide whether or not to take up cases involving attendance in courts.

As the matter concerns members of the Independent medical profession among whom rural medical practitioners are also included, I wish you to take up the subject both in your journal and in the Madras Medical Council and make the latter do its duty by the medical men, if only it has any concern for them beyond that of registering their names.

S. RAMASUBBU, L. M. & S.
Medical Practitioner and
Secretary,

VIRAGANUR, } The Madras Provincial Rural
Salem District. } Medical Practitioners'
10-4-1930. } Association.

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Acknowledgement.

The response to the appeal made by Dr. V. Rama Kamath, inviting the help of the medical graduates to put me up as a candidate for election to the Madras Medical Council, was encouraging and flattering and I offer my sincere thanks to them in welcoming me to stand for assuring and their help in the election. But on mature consideration I am led to think that it will not be fair for me to contest for the seat, as there is already Dr. Kamath, my colleague in the Editorial staff of "The Medical Practitioner" in the Council. I think I can do better service to the cause of medical relief by concentrating my energy in connection with the journal rather than frittering it away in other directions. The formation of the Medical Council is bad in principle and its working in practice is worse. As long as there is a head of the medical department, to safeguard the interests of the men in service, there is no need for an officer in the Council, as in the case of Bar Council where there is no official element. Out of the 15 members constituting the Madras Medical Council, 8 including the Surgeon General who is the ex-officio President, are nominated and the nominated members are mostly paid officers and the other few will always side with the latter. At least the remaining 7 seats should be left open, in all fairness, to non-officials and officers should be declared to be ineligible to stand for them. Perhaps it is rather too much to expect officials to

stand aloof or to expect them, if elected, to be as independent as non-officials, in the debates of the Council, particularly when matters which go against the interests of the officials are discussed. The division of the practitioners into separate compartments, viz., (1) the all perfect British qualification holders (2) the M.B.B.S. who are just ostracised by the G. M. C. (3) the L. M. S. who are the illegitimate offsprings of the University and (4) the "Untouchable" L. M. Ps. is never conducive to the harmonious and whole hearted co-operation of all the elements of the medical profession, to fulfill their duty to the public. It is required particularly at present, when the G. M. C. has thrown overboard all the graduates of the Indian Universities, that voters especially the non-official voters will as one body support a non-official candidate and see him elected.

M. S. KRISHNAMURTHI AYYAR.

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ARSENICAL DIFFERENCES.

Arsenic by itself is not a treatment for the infection of Syphilis, but only for the symptoms of tissue destruction. On the other hand Arsenic in the form of 606 or 914 or Sulfarsenol are curative because these compounds have a specific affinity for the protein of the parasite. These particular compounds of Arsenic can destroy parasites and so cure symptoms if they are administered in an effective course of treatment, but the difference between the mere disappearance of symptoms and the cure by destruction of the parasite is a thing which is so difficult for the general practitioner to see in his general practice, that he must always be on the look out for it. Now in 1930 there is a general agreement in the minds of the profession that we ought to try earnestly to completely eliminate this disease from this country. In order to attempt to do this we must be particularly mindful of these two actions of Arsenic not to be deceived by this temporary healing up of the tissues which any compound of Arsenic can achieve but to look towards only one end, that is the complete cure of each and every case. Now to help us to decide on a line of treatment we have to examine very carefully the known facts about the antisyphilitic remedies.

606 is useful. It can do the work which is required of it, but it must be given intravenously. The patient must for safety sake undergo certain preparations and the patient must for safety sake adopt certain precautions after the injection. Even so with all the disqualifications 606 is particularly useful in the case of married person whose infectivity should be reduced at the earliest possible moment. That is the special phase for the use of 606.

914 is also a useful remedy, but 914 before it can act as a specific antisyphilitic remedy must undergo certain reactions within the system. The result is that if 914 is given intravenously the blood passing through the

kidneys discharges a large proportion of the dose given and so much of the remedy is lost before it can begin to take its effect. The most effective way to give 914 is to inject it into a muscle but there it is painful.

There may come on the market mixtures of 914 with other substances but here we have to be very cautious about adopting such mixtures, for even though the pain of the injection may be dispelled by such mixtures of other substances one is required to know how much of some other substance is mixed with it in a given ampoule. Of course such a mixture may come very much cheaper than the genuine pure product. 45 cgr. of such a mixture will not contain 45 cgr. of 914.

The principal danger of relying on admixtures of 904 for curative effects is that some effects will be visible which the private practitioner cannot differentiate from cure, for it is too difficult for him to decide what effect his treatment is having whether it is having merely the ordinary effects of arsenic stimulating the nutrition of the tissues and causing healing by direct action or whether it is acting on the Treponema and so helping to cure the disease.

Two observations have been made on Sulfarsenol by a large number of doctors who have been using Sulfarsenol for nearly ten years:—

1. The initial effects of Sulfarsenol on symptoms are comparatively slower than those of many other products.
2. The permanence of the Wassermann negative reaction is better after a course of Sulfarsenol than after other remedies.

The inference from the first observation is that the arsenic effect on the human system is less. This explains somewhat the lesser toxicity of Sulfarsenol. The inference from the second observation is that the antiparasitic properties are greater in the case of Sulfarsenol.

PROTEINS, HORMONES AND HORMONOGENESIS.

The Chemical Constitution of Proteins.

Of definite knowledge regarding the constitution of protein molecules we seem to possess very little. The elements entering their composition are well known. They are oxygen, hydrogen, nitrogen and carbon with definite but small proportions of certain mineral elements such as phosphorous, sulphur etc.. How the elements are combined together is the *Mystery*. Although we have no proof, there is a good accumulation of evidence to show that they are composed mainly of various amino acids combined together in various positions. Fischer's Octodecapeptide, composed of eighteen amino acid groups combined in one molecule, possessed some of the properties of a protein. It is almost certain that proteins contain amino-acids chemically combined with each other. All protein substances, when hydrolyzed completely yield one or more amino acids at the end of the reactions. It is reasonable to suppose that proteins are built up from amino acids. Many plants have been shown to contain free amino acids at certain stages of growth and we may conclude that they are most likely the starting point of protein formation. The amino acids, which have hitherto been obtained from natural sources, differ considerably in type, and among them are found representatives of various classes, of which the following are some of the more important:—

- Glycine and its homologues (alanine, leucine, iso-leucine) etc.,
- Alkylamino-acids (sarcosine, betaine) etc.,
- Diamino-fatty acids (ornithine, lysine) etc.,
- Monamino-dicarboxylic acids (aspartic acid, glutamic acid) etc.,
- Amino-acids which contain closed chains (tyrosine, tryptophane) etc.,

In some cases a given protein may be almost entirely transformed into one amino acid only; but as a rule the product of hydrolysis is a complex mixture of (up to ten or more) amino acids.

As one protein molecule is probably seldom found containing less than two hundred amino acid groups, the number of different proteins must run to many millions. A study of immunology in fact teaches us that every species of plant and animal produces something different from its closest allies. The art of blood transfusion has taught us that even in the human race there are differences classed as A, B, & C, each possessing something more or something less than the other. The proteins of lentils, peas, beans, wheat, rice and vegetables all differ from one another, as also are the proteins of connective and elastic tissue, milk, eggs, muscle, skin, liver, kidney and the various endocrine glands. From such substances we have to find our nitrogenous foods for tissue building, and each tissue is composed differently from the other tissues. The proteins of milk are different from the proteins of a child's flesh. The vegetable Amino Acids contained in vegetable proteins are in many instances quite different from the Amino Acids contained in animal tissues. Now the animal metabolism is sometimes able to change one Amino Acid into another. This is a very difficult thing; in fact for a chemist in the laboratory this is one of the most difficult things he can try to do, while the animal nutritive processes can do it sometimes. Take children: An infant is fed on milk. The casein of milk is composed almost entirely of one Amino Acid with only small quantities of one or two others and yet the infant flourishes. Take an infant about a year old who has been living on milk practically for a year. The flesh of that infant is composed of many different kinds of Amino Acids. Those in the bones are different from those in the skin and those in the muscle are different from those in the elastic tissue. Lymphatic tissues contain

others which are not found in the other tissues; each of the glands contains its own system of Amino Acid Compounds. When a child grows up it seems to lose its capacity for living and being properly nourished on milk alone. It begins to require a more varied mixture of Amino Acids in its protein diet. Why? because it begins to lose the capacity for doing that difficult process; converting one Amino Acid into another. By the time a man reaches the age of 40, this capacity to change one Amino Acid into another or even to change one group of Amino Acids into another group containing the same Amino Acids but differently combined together, is more or less lost at that age. That is where the difficulty of gland trouble commences.

As a consequence, many people over the age of 40 get Diabetes. The nourishment of Pancreas is impaired by some error of diet or otherwise. Fatty degeneration of the Pancreas might be modified by restricted diet, but a person of 40 years of age or over is unable to replace those special groups of Amino Acids that are required for building up the tissue which secretes Insulin. It is necessary therefore, in order to obtain permanent results or anything to look like curative results, to supply these groups of Amino Acids which are required for rebuilding the tissues which generate Insulin.

To do this effectively one has to combine this special supply with such a diet as will permit of the fatty degeneration being modified at the same time. For some time the patient has to be starved to dispel fatty degeneration and then a preparation of pancreas such as Pancreatine should be administered to the patient to reorganise the diseased pancreatic tissue. The same thing happens with other glands. There may or may not be fatty degeneration. There may be more or less starvation with regard to certain Amino Acid groups. The main thing therefore in the treatment of gland troubles, is not so much the

mere temporary supply of hormones but the supply of such substances as will permit the glands themselves to be nourished with these particular Amino Acid groups which they require for reconstruction. That of course is a thing which takes some time. The tissues even when supplied with all that they require will grow but slowly the rate of growth being reduced as the age advances. Where the gland has been left in deficiency of its own particular requirements for a long time, then something goes wrong with that gland and it requires a long time again to put it right.

Sometimes gland troubles commence as a sequel to acute inflammations. An inflammation of the lungs may cause distribution of the toxins throughout the body, intoxicating the glands situated anywhere in the body and so interrupting their activity. In these cases Iodine medication is indicated either intravenously or by mouth. Pharmosal Iodine (A. F. D.) by vein or Rhiodine Pills (A. F. D.) by mouth for a few days have given satisfactory results in eliminating toxins that have accumulated in the endocrine system. Even after Iodine medication if there be hypofunction or dysfunction of endocrine glands one should have recourse to endocrine therapy using the dried and desiccated products of known strength and reliability.

Now the function of a gland tissue is intimately associated with the particular Amino Acids or groups of Amino Acids which it contains. For instance, in the tissues which secrete Insulin a certain group of Amino Acid is required. In the tissues for the secretion of the sex hormones such as in the testes we have a different group of different Amino Acids.

HORMONES

Uptill now, much is not known about the chemical constitution of hormones, but so far as our knowledge goes, it points out that the hormones are derivatives of the proteins.

Adrenalin is $(\text{HO})_2\text{C}_6\text{H}_3\text{CHOHCH}_2\text{NHCH}_3$

Displace the end CH_3 by H, and oxidize the OH groups in the Benzene rings and we have the amino acid $(\text{HO})_2\text{C}_6\text{H}_3\text{CHOHCH}_2\text{NH}_2$.

Guanidine, for instance is a toxic substance having some of the properties of Insulin, and is obviously related to the protein decomposition product urea.

Guanidine (imido-urea) $\text{NH}_2\text{CNH-NH}_2\text{Urea NH}_2\text{CONH}_2$.

Arginine is another common amino acid decomposition product of protein, and certain derivatives of this also have insulin-like properties.

Choline, and the New Vagal Hormone Acetyl Choline are both closely allied to protein decomposition products and so also is Thyroxin.

We are therefore bound to come to the conclusion that the hormones are products of the proteins in the gland tissues. In order that such products may be split off from the protein molecule, the protein molecule itself must have a special formation suitable for yielding these derivatives. To build up such proteins, suitable supplies of the required basic material must be provided. Such basic material is found in Opocrin tablets. Very few protein derivatives can be injected repeatedly without reactions, therefore only the hormones themselves can be used for ampoules, but in the tablet form we can combine the hormone with the pro-hormone and hormone producing protein products. In cases of Diabetes, where the symptoms are acute, we can inject Insulin; in sub-acute and chronic cases we can administer Pancreatine tablets, which contain the necessary protein products, or Hormogens.

In acute cases of pernicious anæmia we can prescribe any of the various liver extracts available, but when the critical stage is passed we must turn to Opocrine Hepar in order to assist in the restoration of the hepatic junction in cytogenesis.

We cannot go so far as to assume that all endocrine troubles are caused, even in part by a failure of the special protein supplies, or a failure of the nutritive processes to convert available material to the proper formation required.

We have here a reasonable line of advance for further study, and with the following list of Opocrins at our disposal some practitioners who are interested may be inclined to proceed to a further study and report in this journal.

OPOCRINS

(Containing Hormogens)

Opocrins (tablets) are prepared by a special process, designed to preserve the tissue proteins in an unaltered condition, in a condition best suited for ultimate utilization for building up those tissues which secrete the hormones of that gland.

Opocrins should therefore be preferred where it is desired to re-establish the gland tissue to a well nourished condition, capable of all the activities which that gland ought to possess.

KIDNEY

Hypertensive, Antitoxic. Kidney Stimulant.

Opocrin Renal.

Ext. Kidney 0.15 gm.
Dose.—4 to 8 Opocrins daily.

LIVER (for anemia)

Antitoxic. Favours the intracellular absorption of Glucose.

Opocrin Hepar.

Ext. Liver 0.15 gm.
Dose.—4 to 8 Opocrins daily.

OVARY

Regulator of Menstruation and Ovulation. Synergic relation with the thyroid and pituitary.

Opocrin Ovary.

Ext. Ovary 0.15 gm.
Dose.—4 to 8 Opocrins daily.

PARATHYROID

Convulsive disturbances.

Opocrin Parathyroid.

Ext. Parathyroid 1 mgm.
Dose.—1 to 4 Opocrins daily.

PANCREAS

Controls Glycogenesis. Facilitates the digestion of albuminoids and carbohydrates.

Opocrin Pancreas.

Ext. Pancreas 0.15 gm.
Dose.—4 to 8 Opocrins daily.

PITUITARY

Hypertensive cardiac tonic. Increases coagulability of the blood.

Opocrin Pituitary.

Ext. Pituitary 0.15 gm.
Dose.—4 to 8 Opocrins daily.

SPLEEN

Hematopoietic, Lymphopoietic.

Opocrin Spleen.

Ext. Spleen 0.15 gm.
Dose.—4 to 8 Opocrins daily.

SUPRARENAL

Antitoxic. Cardiac tonic, Hypertensive.

Opocrin Suprarenal.

Ext. Suprarenal 0.10 gm.
Dose.—4 to 8 Opocrins daily.

ORCHITIC

Neuromuscular Tonic, Metabolic stimulant

Opocrin Orchitic.

Ext. Orchitic 0.15 gm.
Dose.—1 ampoule.

THYMUS

Trophic, Rickets, Myopathies.

Opocrin Thymus.

Ext. Thymus 0.10 gm.
Dose.—4 to 8 Opocrins daily.

THYROID

Trophic and Antitoxic.

Opocrin Thyroid.

Ext. Thyroid 0.10 gm.
Dose.—4 to 8 Opocrins daily.

OVARO-THYROID

Amenorrhea, Chlorosis, Vaso-motor disturbances, Dysmenorrhea, Dysovarism.

Opocrin Ovaro-Thyroid.

Ext. Thyroid 3 cgm. ($\frac{3}{4}$ gr.)
.. Ovarian 12 „ (2 grs.)
in one Opocrin.
Dose.—4 to 8 Opocrins daily.

OVARO-PITUITARY

Hypotension, Menopause, Amenorrhea.

Opocrin Ovaro-Pituitary.

Ext. Pituitary (whole) 5 cgm.
Ext. Ovarian 10 cgm.
in one Opocrin.
Dose.—4 to 8 Opocrins daily.

ORCHITO-THYROID

Myxedema.

Opocrin Orchito Thyroid.

Ext. Orchitic 12 cgm.
.. Thyroid 3 „
in one Opocrin.
Dose.—2 to 4 Opocrins daily.

OVARO-THYROID-PITUITARY

Menopause, Adiposogenital, Syndromes, Dysovarism, Neurasthenia.

Opocrin Ovaro Pituitary Co.

Ext. Ovarian 7 cgm.
.. Thyroid 3 „
.. Pituitary 5 „
in one Opocrin.
Dose.—2 to 4 daily.

OVARO-THYROID-PITUITARY-SUPRARENAL

Obesity, Pluriglandular Syndromes.

Opocrin Ovaro-Adrenal Co.

Ext. Ovarian 7 cgm.
 " Thyroid 2 "
 " Pituitary 3 "
 " Suprarenal 3 "
 in one Opocrin.

Dose.—2 to 4 daily.

ORCHITIC-THYROID-PITUITARY-SUPRARENAL

Impotence, Asexualism, Pluriglandular Syndromes.

Opocrin Orchitic-Adrenal Co.

Ext. Orchitic 7 cgm.
 " Thyroid 2 "
 " Pituitary 3 "
 " Suprarenal 3 "
 in one Opocrin.

Dose.—4 to 8 daily by progressive dosage.

GLAND COMPLEX (MASCULINE)

Endocrine disturbances in the male.
 Pluriglandular Syndromes.

Opocrin Masculine.

Ext. Cerebrin 0.075
 " Gastric 0.0075
 " Hepatic 0.0675
 " Pituitary 0.0015
 " Pancreas 0.0045
 " Kidney 0.012
 " Suprarenal 0.003
 " Orchitic 0.045
 " Thyroid 0.0015
 in one Opocrin.

Dose.—2 Opocrins daily to commence, and gradually increase until 4 or 5 Opocrins are being taken daily.

GLAND COMPLEX (FEMININE)

Endocrine disturbances, in the female. Pluriglandular Syndromes.

Opocrin Feminine.

Ext. Cerebrin 0.0075 gm.
 " Gastric 0.0075 "
 " Hepatic 0.0675 "
 " Pituitary 0.0015 "
 " Ovarian 0.0375 "
 " Placenta 0.003 "
 " Pancreas 0.0045 "
 " Kidney 0.012 "
 " Suprarenal 0.003 "
 " Thyroid 0.0015 "
 " Mammary 0.0045 "
 in one Opocrin.

Dose.—2 Opocrins daily to commence, then gradually increase until 4 to 5 Opocrins are being taken daily.

GLAND COMPLEX (INFANT)

Endocrine disturbances in the infant.
 Pluriglandular Syndromes.

Opocrin Infant.

Ext. Cerebrin 0.005 gm.
 " Gastric 0.005 "
 " Hepatic 0.045 "
 " Pituitary 0.001 "
 " Pancreas 0.003 "
 " Kidney 0.008 "
 " Suprarenal 0.002 "
 " Thyroid 0.001 "
 " Thymus 0.030 "
 Dose.—1 to 3 Opocrins daily.

List showing the postings of Sub-Assistant Surgeons in April 1930.

N.B.—The postings of Sub-Assistant Surgeons are being published in this journal at special request. Similar lists for other officers of the Medical Department are not published as the same are being notified periodically in the Fort Saint George Gazette and reproduced in the Madras dailies.

Name of Sub-Assistant Surgeon.	From	To
1. M.R.Ry. P. V. Anatanarayana Iyer.	R. D. Hd. qrs. Hospital Chingleput.	Placed at the disposal of P.D.B., Chingleput.
2. " K. Achutha Nair.	do	Hd. qrs. Hospl. Chingleput.
3. " K. Achutha Nair.	Hd. qrs. Hospl., Chingleput	Placed at the disposal of the P.D.B., Chingleput
4. " L. A. Arogyasami Pillai.	Leave	Taluk Hd. qrs. L.F.Dy., Rapalle, Guntur Dt.
5. " V. Balakrishna Ayyar	do	Hd. qrs. Hospl. Coimbatore.
6. " V. Bhavanarayana	L. F. Dy. Kumbum, Kurnool Dt.	Taluk Hd. qrs. L.F.Dy., Allagada, Kurnool Dt.
7. " P. Bhima Rao	L. F. Dy. Allur, Nellore Dt.	Placed at the disposal of the P.D.B., Bellary.
8. " P. Balasundaram	R. D. Head qrs. Hospital Palamcottah	L.F. Hospl., Ambasamudram, Tinnevely Dt.
9. " G. T. Gopalakrishnan	Newly entertained	Police Hospital, Salem.
10. " M. Goparaju	R.D. Hd. qrs. Hospital Guntur	Govt. Hospl. Kadiri, Anantapur Dt.
11. " M. Goparaju	Govt. Hospl., Kadiri, Anantapur Dt.	R.D., Hd. qrs. Hospital, Guntur.
12. " K. S. Ganesan	Newly entertained	Placed at the disposal of the Civil Surgeon, Vizag Agency.
13. " K. Gopalaa Nambiar	Leave	Hd. qrs. Hospital, Cocanada, E. Godavari Dt.
14. " T. Joga Rao	Newly entertained	Hd. qrs. Hospl., Berhampur.
15. " R. Krishna Ayyar	Leave	R.D., Hd. qrs. Hospl. Chittoor.
16. " K. V. Krishna Nayar	L.F. Dy., Cheyyar	R.D., Hd. qrs. Hospl., Tanjore.
17. " G. K. Kuppuswamayya	Taluk Hd. qrs. L. F. Dy. Rapalle, Guntur Dt.	R.D., Hd. qrs. Hospl. Chittoor.
18. " V. Kameswara Rao	Leave	R.D., Hd. qrs. Hospl., Nellore.
19. " Ch. Lakshmana Rao	L. F. Dy. Indukurpet, Nellore Dt.	Placed at the disposal of the I. G. of prisons.
20. " Muhammed Ali Sahab	R. D. Hd. qrs. Hospl. Calicut, Malabar Dt.	R.D., Hd. qrs. Hospl. Salem.
21. " C. Manicka Mudaliar	Leave	L.F. Dy., Punganoor, Chittoor Dt.
22. " D. V. Moses	R.D. Hd. qrs. Hospital, Tanjore.	Govt. Hospital, Negapatam (Tanjore Dt.)
23. " V. G. Parthasarathy Naidu	R. D. Head qrs., Hospital Trichinopoly	Festival duty at Kallakurichi, Trichinopoly Dt.
24. " R. M. Patro	Hd. Qrs. Hospl. Bellary	R.D. King George Hospital, Vizagapatam.
25. " M. Rama Rao	L. F. Hospital Kuruppam, Vizagapatam Dt.	Hd. qrs. Hospital, Bellary.
26. " T. V. Ramanathan	Newly entertained	R.D. at the Govt. Hd. qrs. Hospl. Anantapur.
27. " L. A. Ramaswamy Ayyar	Central Jail, Coimbatore	R.D., Govt. Hd. qrs. Hospl., Calicut, Malabar Dt.
28. " V. Ramalinga Ayyar	Leave	Govt. Hospl. Dharmapuri, Salem.
29. " K. Sambandam M.B.B.S.	Plague Duty, Tiruppattur North Arcot Dt.	Taluk Hd. qrs. L.F. Dy., Polur.
30. " S. V. Siva Rao	Taluk Hd. qrs. L. F. Dy., Allagada, Kurnool Dt.	R.D., Govt. Hd qrs. Hospital, Kurnool.
31. " T. R. Srinivasa Ayyangar	Hd. qrs. Hospl. Ramnad,	Govt. Hospital, Rameswaram, Ramnad Dt.
32. " A. P. Srinivasa Rao	Leave	R.D., Hd. qrs. Hospital, Nellore.
33. " P. Sitaramayya	Leave	Hd. qrs. Hospital, Nellore.
34. " K. Suryanarayana-murthy	Hd. qrs. Hospl. Nellore	Govt. Hospital, Kundukur, Nellore Dt.

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List showing the postings of Sub-Assistant Surgeons in April 1930—(contd.).

Name of Sub-Assistant Surgeon.	From	To
35. " S. Sengaliappan	Newly entertained	Lawley Road Dy., Coimbatore.
36. " T. Suryaprakasa Rao	R.D. Hd. qrs. Hospital Vellore, N. Arcot Dt. Police Hospital, Salem	Hd. qrs. Hospital, Chengleput.
37. " R. Shunmugam Pillai		Taluk Hd. qrs. L.F. Dy. Hosur, Salem Dt.
38. " A. N. Subbiah	L.F. Dy. Darsi, Nellore Dt.	L.F. Dy. Musiri, Trichinopoly Dt.
39. " V. Viswanathan	Govt. Hospl. Chidambaram, S. Arcot Dt.	Hd. Qrs. Hospital, Cuddalore, S. Arcot Dt.
40. " P. Varadarajulu Naidu	L.F. Dy. Yemmiganur Bellary Dt.	L.F. Dy., Cumbum, Kurnool Dt.
41. " S. Vaidyanathan	Newly entertained	Placed at the disposal of the P.D.B. Chengleput. (Saidapet).
42. " M. Venkataratnam	L.F. Dy. Pamur, Nellore Dt.	Taluk Hd. qrs. L.F. Dy., Palakonda, Vizagapatam Dt.
43. " M. Venkatasubba Rao	Leave	R.D., Hd. qrs. Hospl., Nellore.
44. " B. Yerramaraju	Taluk Hd. qrs. L.F. Dy., Dharmavaram (Anantapur Dt.)	Munro's Hospital, Anantapur.

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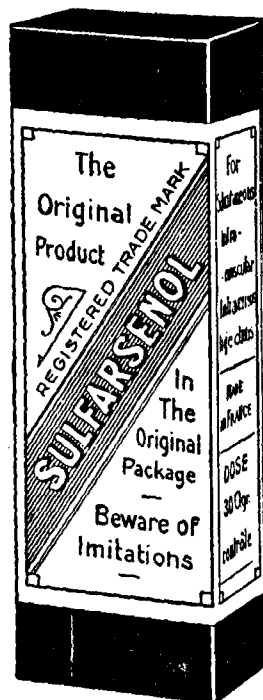
FRAUD ON CHEMICAL FIRMS. Special to "Times of India."

PARIS. (By Mail). So cleverly did a gang of fraudulent patent medicine vendors make up and sell quantities of faked medicines to chemists in Paris and elsewhere in France that the proprietors of the patent medicines themselves when asked by the police were unable to distinguish their own products from the faked ones.

The bottles, labels, printing and wrappings were all exactly imitated. Large shipments were made to Cuba and Mexico by deluded purchasers of the counterfeit medicines. Several arrests have been made but the police do not yet believe that they have caught all the men involved in the fraud which has cost reputable houses many thousands of pounds.

One of the cheated chemists with the connivance of the police set up a temporary export bureau and gave an order to the suspected persons. They duly delivered the falsified goods only to find themselves on arrival in the hands of the police.—British United Press.

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A Monthly Medical Journal

EDITED BY

Dr. M. S. Krishnamurthi Ayyar, M. B. & C. M.
Retired Sanitary Commissioner, Travancore State

AND

Dr. V. Rama Kamath.

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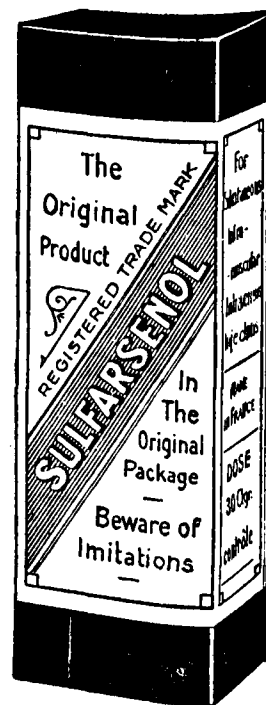
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VOL. 1. No. 9.

The Medical Practitioner

A Monthly Medical Journal

EDITED BY

Dr. M. S. Krishnamurthi Ayyar, M. B. & C. M.

Retired Sanitary Commissioner, Travancore State

AND

Dr. V. Rama Kamath.

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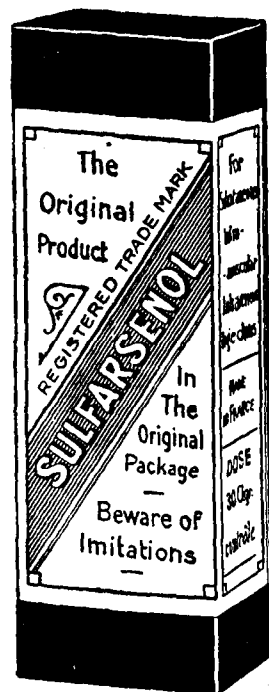
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Vol. I]

JUNE, 1930

[No. 9

GOVERNMENT COMMITTEE'S REPORT ON THE MEDICAL EDUCATION IN THE MADRAS PRESIDENCY.

Berlin 13.2; London 12.8; St. Peters Burg 12.0; Paris 11.1; Copenhagen 9.0.

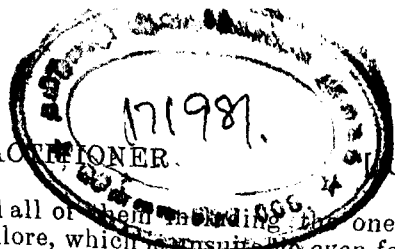
The consideration of the Report may well begin with the following quotation from Rene Descartes "If ever the human race is raised to highest practical level intellectually, morally and physically, the science of medicine will perform that service." It is evident from the above that if the medical science is to do its duty in raising the human race the medical education, the basis of medical science should be sound, liberal and of high standard.

NUMBER OF ADMISSION TO SCHOOLS AND COLLEGES.

It is not stated in the extract of the report published in newspapers how the Committee arrived at the figure 200 as the liberal estimate of the number of practitioners required annually for the Province. The average number of medical practitioners excluding specialists, homeopaths, naturopaths etc., in rural and urban areas of the countries in Europe, America and in Japan is as follows:—For every 10,000 inhabitants in rural area there are in the United States 12; England 7.8; Spain 7.5; Germany 7.45; Japan 6; Italy 5.6; Switzerland 5.3; Austria 2.5; and in Russia 2.0. doctors.

In the urban areas:—Brussels 24.1; Madrid 20.9; Rome 14.8; Vienna 14.0;

The population of the Province of Madras as per 1921 Census was 35,854,478 rural and 5,148,218 urban and in the next census which is to be taken in March next, there will be some increase. Taking into consideration that in India native Vaidhyans and Hakims are also practising, the lowest number of practitioners of the western allopathic system of medicine required for rural areas may be put down at 2 and for urban areas at 5 for every 10,000 population. The number is certainly quite inadequate particularly in rural areas where the villages are scattered and are not connected by good roads with one another. Even on this lowest estimate the number of practitioners required both for the urban and rural areas comes to about 12,000. The existing number is about 4,000 including the Government Officers and Mission Doctors; and make up the deficiency and bring the number upto that required 8,000 more are necessary. In order to maintain this number 12,000 always and making allowance for sick, retirement from practice on account of old age and mortality, which even in advanced countries is more among medical men than among general public, about 500 practitioners will be required every year. Calculating at the rate of 20 per cent of those that are admitted in Colleges and schools may fail to pass or otherwise discontinue their



es, the lowest number of admissions is 600 and not 250 the most liberal estimate of the Committee.

EDUCATIONAL QUALIFICATIONS FOR ADMISSION.

The Committee states that the standard of qualification of the present L. M. Ps. should be raised and the course of study should be extended from 4 to 5 years as in the case of University course. If the standard of qualification is to be raised to the level of that of the University the satisfactory course would be (1) that the minimum educational qualification for admission to both the University and Diploma courses should be the same viz., the Intermediate examination with Science as optional subject (2) the course of instruction should be the same and all the students should be taught in the same class. Option may be given to the students at the end or during the course to appear either for Diploma or University Degree. The designation of the institution in which instruction is given to secure diploma as school, the appointment in the schools of teachers of lower status, qualification and pay than that in colleges and the location of the schools in places where the facilities and materials for clinical instruction are inadequate, will never contribute to the raising of the standards of qualification to enable the diploma holders to get into service and to be appointed for posts in equal terms with the University men. We warn the L. M. Ps. at whose agitation and for whose benefit the Committee was appointed, to see that their qualification for admission, training, course of study and prospects are no way inferior to the University men and that they are treated as University men in all respects.

LOCATION OF SCHOOLS AND COLLEGES.

Having pointed out the desirability for teaching the students of both the University Degree and Diploma in the same Institution, the retention of medical schools becomes unnecessary

and all of them including the one in Vellore, which is unsuitable even for a medical school, may be abolished. With the money made available with such abolition, either the Medical College in Madras may be enlarged and strengthened so as to afford admission for all the 600 students in a year and abolish the Vizagapatam Medical College or improve both the Medical Colleges in Madras and Vizagapatam to afford accommodation for all the students. If it is not considered impracticable to abolish the Medical Schools at Tanjore and Royapuram, the Vizagapatam College may be abolished and a school may be opened in its place. In any case there is absolutely no necessity for a school whether Government or aided at Vellore.

SELECTION OF STUDENTS, PROFESSORS AND TEACHERS.

We heartily concur with the views of the Committee condemning the communalism in the matter of selection of students for admission. We will go further and say that the Communalism demon must be exorcised once for all from every department and public bodies, as its domination for the last few years has brought on all the trouble and demoralised the administration of the Province. While the Committee condemns in unequivocal terms communalism in the matter of selection of candidates for admission, it brings a worse demon when it recommends the selection of Professors and Teachers from among Madrasees. Professors of Anatomy, Physiology, Pathology, Bio-Chemistry, Pharmacology and Bacteriology should be selected from open market even, if necessary, from among the Europeans and others whose qualifications are recognised and registrable in India and the scale of pay for these appointments should be equal and may rise from 1000 to 2,000 Rupees and if foreigners are to be appointed they should be given some oversea allowance and none of the Professors should be allowed any practice whatever. As regards the professors of other sub-

jects they may be held by Physicians and Surgeons, honorary or paid who are attached to the hospitals and may be given Rs 250 as teaching allowance, but debarred from private practice except as consultants. In respect of appointments of Assistant Lecturers and Teachers, the appointments should be restricted to Indians only and selection made from among servicemen or outsiders by a competitive examination. They should not be allowed any private practice. There is no necessity for a full time professor of Medical Jurisprudence as pointed out by us in the last issue of this journal. It is rather strange that Dr. Mallyya who objected to the appointment of a full time officer on the floor of the Legislative Council and pointed out the advisability of giving the Lecturership to the Police Surgeon in the City as is the case in the city of Calcutta, should have in the report recommended the appointment of a full time professor.

II

Elsewhere in this journal is found an article on the proposed abolition of the B.S.Sc. course in Madras and we are inclined to think that there is some force in it. As the goal of medicine—according to Osler—is prevention of disease, the time has come to do away with the separation of preventive from curative medicine (if any disease can be completely cured at all) and combine them together. As India is a Tropical Country and the people suffer mostly from diseases peculiar to Tropics and not from those that occur in Frigid and Temperate Zones, Tropical Medicine should be taught in all Medical Schools and Colleges in India. The existence of a school on Tropical medicine in Calcutta and the grant of a Diploma in Tropical Medicine besides being anomalous, indicate that the medical men turned out from the other medical schools and colleges in India, are unfit to treat satisfactorily Tropical Diseases which are the most common diseases in India. Further, there is no country in the world, at any rate in the United Kingdom, in America and some countries

in Europe where there is any special examination prescribed for the recruitment of Health Officers and we do not see why in India, there should be any such qualifications. The most suitable and satisfactory way of dealing with the subject will be to arrange a course of study of Tropical Medicine in all medical schools and colleges in India and if specialisation on any subject—say Public Health—is needed by any, he may go at his own expense to Calcutta, Europe or America etc. for the purpose. The appointment of Health Officers may be made from among ordinary medical men turned from Medical Schools and Colleges but special consideration may be shown to those who have specialised in Public Health. There is no meaning in these days when competition is keen, to get students specialised in Public Health at the cost of Government. If service men need specialisation in any subject, the necessary study leave may be granted for the purpose but no stipend.

Original Articles.

ENDOCRINOLOGY.

BY

DR. M. S. KRISHNAMURTHY AYYAR,
M. B. & C. M.

IX

Parathyroids.

The two external parathyroids were discovered in 1880 by Sandstrom, a Swedish Physician and are since called Sandstrom glands and the two internal by Nicholas of Nancy in 1893. According to Gley, the function of the Parathyroids was to supplement the function of the thyroid and the fact that the parathyroids became atrophied on removal of the thyroid was pointed out as supporting the view. Dr. Sajous in his book "The Internal Secretions and Principle of Medicine" speaks of both Thyroid and Parathyroids as a single thyro-parathyroid apparatus. At present, however, it is found that

LSM 211, N 30 MP
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Parathyroids and thyroid are quite separate in origin and the former having the functions at least one of which is quite opposite that of the thyroid. The two chief functions with which parathyroids are credited with are (1) control upon calcium metabolism (2) antitoxic action, the chief purpose of which is the destruction of the substances which have a predilection for influencing nervous tissue.

Origin and Anatomy

The parathyroids arise from the entoderm of the third and fourth bronchial clefts as outgrowth. The two superior or internal arise from the fourth cleft and hence called Parathyroidia IV and the two inferior or external from the third cleft and hence called Parathyroidia III. The usual number is four, the two of which the superior are called internal and lie on the posterior side of the upper portion of the thyroid gland one on each lateral lobe. As they are embedded partially in the substance of the thyroid they are called internal. The inferior two lie on the posterior surface of the lower portion of the thyroid and are called external. Additional glands are also found, sometimes the number going up to 8. The weight of the four glands is about 55 centigrams. The blood supply is from the inferior thyroid, and veins empty themselves into the thyroid veins. The nerve supply is from the sympathetic; the method of entrance of the internal secretion into the system is unknown.

Physiology and Pharmacology

The parathyroids are quite independent from the thyroid both in origin, histology and function. But this does not prevent a direct or indirect relation between the functions of the two systems. It is believed that parathyroid insufficiency to some extent checks the functions of the thyroid. Two theories are held regarding the functions of the parathyroids. (1) the regulation of the calcium metabolism of the body and (2) the prevention of the accumulation of toxic products chiefly methyl-guanidin which irritate the

central nervous system and myoneural junction in the muscle substance. The calcium salts are increased in the urine and feces after the removal of the parathyroids. The calcium salts have moderating influence upon the nerve cells. The parathyroid secretion in some way controls the calcium exchange in the body. It may possibly be that in the absence of the parathyroid secretion, substances arise which can combine with calcium, abstract it from the tissues and cause its excretion and that the parathyroid secretion prevents the appearance of such bodies. According to the intoxication theory it has been found definitely that a considerable quantity of methyl-guanidin is found in the urine of parathyroidectomized animals and that guanidin and methyl-guanidin excite the spinal cord and that calcium lactate antagonises its action. The secretion from the parathyroids has not been chemically analysed and it is believed to be a chalone which may be termed according to Schafer, "Parathyrin." The secretion is said to govern the conversion of a non dialyzable and an ineffective combination of calcium into a dialyzable form which is essential for the control of the excitability of the nerves.

Clinical Signs and Symptoms.

The symptoms of hyperparathyroidism are few and chiefly concerned with disturbed calcium metabolism. There may be extensive calcium deposits in muscles and tendons, calcification of arteries and hypertension. In some instances chronic renal disease also is caused. Parathyroid deficiency is very common and widespread and before dealing with them, it is better to describe the chief disease caused by the deficiency *viz.*, Tetany.

Tetany is a clinical syndrome characterised by a peculiar hyper excitability of the nervous system—motor, sensory and autonomic—and in manifest cases by spontaneous attacks of peculiar tonic spasms in involving certain group of muscles or even the whole

body musculature. The hyper excitability of sensory nerves is manifested by pains in the muscles during the spasms, parasthesia especially in the distal parts of the extremities and increase of the response to electrical and mechanical stimuli applied to the sensory nerves. The disease may be manifest or latent and may occur in epidemic form. It may be acute or chronic. It occurs at any age and in both sexes, very common in children who have rickets. Several forms are recognised and described *viz.*, Tetania gastricus-t-colonica, t-gravidorum, t-lactantrum, t-strumipriva, t-idiopathica etc.

Muscular System:—The tonic spasm of musculature is manifest partially in the upper extremities and in children the upper and lower extremities are affected; the four fingers are crowded together by adduction so as to form a cone and the thumb is strongly adducted and opposed and hands resemble the shape of that used by obstetricians. In others the hands assume the one adopted when one presses flat on a sheet of paper. In others the fist is tightly closed and contractures are so marked that the finger nails are driven into the skin so as to cause necrosis. In still other instances a bird claw position is assumed and in certain rare examples the fingers may even spread wide apart and fully extended at all joints. The wrist joint of the hand is slightly flexed upon the forearm and in rare instances there may be extreme flexion at the wrist so that the hand and the forearm form a right angle. In the lower extremities there may be planter flexion of the feet while the sole of the feet turn medial ward. The toes are slightly flexed and adducted. In rare instances a valgus position of the foot is assumed. There may be contractures of the adductors of the thighs so that the limbs are held close together and the thighs may even be crossed. In the trunk the thoracic and abdominal muscles including the diaphragm may be involved causing asphyxia. The whole trunk may be hyperextended (opisthotonos) as is Tetanus and less

often it is a flexed (Emprosthotonos). The muscles of the neck may be contracted and a torticollis appears. In the face trismus may appear. Sometimes muscles of the face are immovable, yielding the so called "tetany face." A sort of mouth "carpmouth" has been described by some observers. The eye muscles are sometimes the seat of spasms and even the intrinsic muscles take part. The laryngeal muscles are affected producing laryngospasm. The smooth muscles are also affected producing the esophagismus, gastrospasm and entropspasm. Even spasm of the heart muscle had been described. On one side of the body may be attacked though the tetany is usually bilateral.

Vaso-Motor Disturbances:—Among these disturbances may be mentioned (1) Outspoken dermatographism (2) abnormally marked variations of tonus on psychic stimulation and especially on emotional stimulations (3) facial pallor even when the blood shows an abnormally high red corpuscles count (4) edematous swelling due to angio-spasm (5) dead fingers (6) complaints of congestion in the head and (7) "Pudgy" look to the face.

Gastro-intestinal system:—Functional disturbances of the digestive system consisting of gastric hyperchlorhydria, pylorospasm, intestinal hyperperistalsis and diarrhea. Salivation is also observed.

Blood:—Increased red cells count. The total white cells do not seem to be affected, but the differential formula is often changed in the direction of a relative lymphocytosis with a relative and an absolute diminution of the poly-morpho-nucleo-neutrophile cells.

Heat Regulation:—Slight fever usually of a remittant type is observed particularly in children.

Trophic disturbances:—Brittle and grooved nails and necrosis of the roots of the nails are observed. The hairs fall out often. Faulty calcification of the dentin and hypoplasia of enamel are common. Cataract is frequent even in young persons affected with

thy. Conjunctivitis occurs frequently. Lacrymation, hyperhydrosis are common. Parasthesia especially acroparasthesia are very common and they constitute a part of the classic syndrom.

Metabolism:—Protein metabolism is disturbed. Ammonia, total nitrogen in the blood and urine and peptid nitrogen fraction in the urine is increased. Guanidin and creatin are increased in the body and to the toxicity of the former is attributed the onset of tetany. Xanthin Guanidin are also increased. Calcium and magnesium are reduced while potassium and sodium are increased.

Diagnostic signs and tests.

Trousseau's phenomenon; By application of a tight bandage around the upper arm the typical obstetrical hand is produced.

2. Chvostek's sign: I. Light percussion on the region of the external auditory meatus causes contractions of the muscles of the whole side of the face, closing the eyelids, contracting the alae of the nose and the corners of the mouth II. Tapping under the zygoma produces contractions of alae of the nose and muscles of the corners of the mouth III. Percussion in this case causes only slight twitching of the angle of the mouth.

3. Leg Phenomenon: (Schlesinger) Painful spasm in the leg induced by flexing the hip joint with the leg extended at the knee,

4. Arm Phenomenon:—(Pool) A similar phenomenon to the above contraction of the muscles of the arm after forcible adduction.

5. Erb's Phenomenon:—Increased reaction of the motor nerves to the galvanic current.

6. Hoffman's Phenomenon:—Increased excitability of the sensory nerves on electrical stimulation. Ulnar nerve usually used.

7. Epinephrin Hyper Sensitive-ness:—In normal persons after an injection of one milligram of Epinephrin the blood pressure and the

pulse rate usually rise gradually whereas in acute tetany the rise is very marked. The acme being reached within two minutes and at the same time there is marked pallor of the face, and of the skin of the whole body.

8. Pylocarpin Hypersensitive-ness:—Pylocarpin injection in normal persons produces hyperhydrosis, salivation, lacrymation, gooseskin, vasodilation in the skin, feeling of heat and of congestion in the head; all these are marked in persons suffering from tetany. In some cases spasms of the glottis and the muscles of deglutition are also observed.

Therapeutics

Parathyroid is used in medicine as the desiccated substance and in doses of 1/20 to 1/10 of a grain. In children the dosage should not exceed 1/20th of a grain three times a day. The nucleoprotein is also used in five percent tablets. All the above are given orally, but solution of nucleoprotein may be used hypodermically.

Chorea:—Parathyroid has been found beneficial in controlling the symptoms of chorea.

Eclampsia and Uremia:—Parathyroid treatment is successful in overcoming the intoxication in eclampsia and uremia. In view of the probable action of parathyroids in neutralising the toxic products of metabolism it would appear worthy of trial.

Epilepsy:—The similarity of epilepsy to tetany and possibility of relationship between them has been suggested and both may be due to faulty function of the parathyroid and hence the use of parathyroid in this disease,

Paralysis agitans:—Favourable results of the use of the Parathyroid in this disease are forthcoming.

Spasmophilia:—The spasms and convulsive symptoms in this disease have been successfully controlled by the administration of the parathyroid.

Tetany:—Parathyroid is in general use in the treatment of this condition

and has been found useful if combined with calcium lactate.

Ulcers:—(Varicose and Gastric) Parathyroid has been found useful in the treatment of chronic ulcer-varicose and gastric as these are sometimes due to the deficiency of calcium.

PROPOSED ABOLITION OF THE B. S. Sc. COURSE IN MADRAS

COMING EVENTS CAST THEIR SHADOWS BEFORE

On 8-11-1929, Khan Bahadur S. K. Abdul Razack Sahib Bahadur asked the Honourable the Minister for Public Health in a round-about way about the abolition of the B. S. Sc. Degree and the Hon. Minister answered this question so vaguely, that none could be wiser after this reply, and till this day nothing definite is known to allay the suspicion in the minds of those interested as to what would really happen regarding the B. S. Sc. Degree after the proposed Calcutta Hygiene Institute comes into existence, especially as the late Surgeon General Megaw had expressed himself in no uncertain terms that the Calcutta Institute would be a better one for the training of the candidates to serve in P. H. Department. We have information which is not so far contradicted by the Principal, Medical College that there is to be soon a transformation regarding the accommodation of at least three departments in the Medical College, and in this arrangement the Hygiene department has been treated in a way which confirms the suspicion, nay, makes it certain that this department is to dwindle down to a most inconspicuous position unworthy of a big otherwise progressive province in the matter of medical education both in the curative as well as in the preventive aspects. It is quite possible that the Honourable Minister of Public Health is unaware that those who have made up their minds to lower the importance of the Hygiene Department of the Madras Medical

College by raising the status of future Hygiene Institute at the Calcutta Tropical School of Medicine, are paving the way, to make their work easier to throw over-board the plans of the late Director of Public Health, Col. A. J. H. Russell who had been successfully developing the Hygiene Department for the last ten years as a separate entity so much so that the new B. S. Sc. Degree for which the students are trained at the Madras Medical College has been recognised as implying the attainment of a high standard of knowledge of Hygiene. Col. Russell was of opinion that there was no qualification in India, or for the matter of that, in Great Britain also, that was superior to it, and that few other qualifications reached to its high standard.

His constant endeavour was to encourage and improve the standard so as to bring it up to the level of a University Honours School. With this object in view, the Hygiene classes were separated from the Bacteriology classes, a full time Professor of Hygiene was appointed, the courses of study and the training were reorganised and improved, and special lectures were instituted to deal more fully with many of the special subjects, such as Vital Statistics, Epidemiology, Vaccination, Town Planning, Tuberculosis, and Venereal diseases. Much progress, therefore, has already been achieved since the Professor of Hygiene was appointed and it needs only the recognition of the University in the appointment of a Readership in Hygiene, and the admission of research scholars to set the feet of the Hygiene Department in the path towards the ultimate evolution of an Honours School.

For this purpose, plans and estimates had been got ready awaiting the sanction of the Surgeon-General, and it is a strange irony that Col. Megaw seems to have set back these plans and estimates awaiting the development of the Calcutta Hygiene Institute, and the effect of the set-back seems at present to threaten the very

science of a growing department of hygiene, and it is inconceivable that in the new modelling of the medical College, the Hygiene department will materially suffer and a large amount of money already spent will be wasted, if as contemplated, the Hygiene department is to be shifted to the Anatomy Theatre which is considered to be too small for the growing needs of the College. It is said that the upstairs of the new building now occupied by the Physiology Department is to be shifted downstairs where the Hygiene department is now located. Why these three shiftings which will not only dislocate the work of all the three departments but will cause lot of damage to the costly fixtures, not to mention the breakage of very costly instruments and appliances during the transfer from one place to another. The Anatomy department could be most effectively enlarged and developed where it is at present and the Physiology and Hygiene departments left undisturbed. These shufflings really cast the shadow of the coming events, that is, to cripple the hygiene department at Madras and make the path to Calcutta easy.

The checking of this advance will certainly be a disaster and will put back the hands of the clock of progress in Hygiene and Sanitation throughout the province, and the gains of the past ten years will be lost.

When the teaching for the B.S. Sc. and Health Officers Classes is abolished, the idea is that students will have to proceed to the new Calcutta School of Tropical Medicine and Hygiene for their training. The cost of this will be necessarily much higher than that in Madras in every way. The student will have to bear the heavy expenses which the high cost of living in Calcutta will entail, and which will probably be at least twice as costly as that of Madras. The fees for the course are also higher in Calcutta, being about Rs. 425 to Rs. 450 for the nine

months course against Rs. 150 to Rs. 200 for the twelve months course in Madras. In fact the cost to the student taking the course in Calcutta will mount up to so large a figure that the student might as well consider the advantages of proceeding to England for the training. This policy will also sooner or later involve the Province in unnecessary expenditure, as it will become necessary, on account of dearth of students proceeding to Calcutta at their own expense, to depute students to Calcutta for training. This will involve an expenditure of about Rs. 6000 for each student sent, this not including fees. To these amounts must be added subsistence allowances, travelling and other allowances that must be granted to the students, and these must necessarily be on the same scale as those granted to service men sent for training for the D.T.M. at present. At a conservative estimate this may come to Rs. 200 per mensm, and for the nine months, to Rs. 1800. Thus the total expenditure of the state in respect of each student will amount to over Rs. 8000. This will certainly not be offset by any commensurate saving in the Medical Budget of the province in the head of Education. Then the expenditure already incurred in the improvements in the Hygiene Department will have been effected to no purpose.

On account of the heavy expenses to which students from this province will be put in having to go to Calcutta for their qualification, the number of local candidates for the filling of posts in the Public Health Department will diminish so much that many of these posts will be filled by outsiders, probably mostly candidates from Bengal.

Bombay and the United Provinces, have their own institutions for training candidates in Hygiene, and they have no intention of scrapping them in favour of a new institution in Calcutta. So why should there be such a move in Madras, where the training and qualification have always

been recognised as being high. The matter would be entirely different if in Madras there had been no institution where suitable facilities and training were available.

More important than these, is the reason that if the training for higher qualifications in Hygiene in Madras were abolished the whole standard of Hygiene will be lowered, as there will be no incentive for endeavouring to reach an Honours standard, when the only teaching retained is that for a pass degree for a qualification in medicine, i. e. for medical students only. The subject will be considered as minor subject in the medical curriculum, contrary to the oft reiterated recommendation of the General Medical Council which has always treated the subject as of such great importance, that it has laid down that the ideas of preventive medicine must be carried into all branches of medical study and so permeate the teaching that the medical practitioners' aim would be instinctively turned to prevention, to seeking first causes, rather than to "pill pushing". This ideal of the General Medical Council can never be attained if the teaching of Hygiene to a higher standard than that of a pass degree is not provided for in Madras. It is only by providing for this higher teaching, with freedom for investigation and research that the high standards laid down by Col. W.G. King and Col. Russel can be ensured and a true orientation towards prevention can be given to the training of medical students.

We trust the Honourable Minister will watch these developments in the interest of this province before it is too late, so that Madras with its vast resources will not have to depend upon another province in the matter of the healthy growth of the Public Health Department which is at present in the words of Col. Russell "The best organised in India".

SOME OF THE FUNDAMENTAL PROBLEMS OF THE MEDICAL PROFESSION.

The chief duty of a medical editor is to educate his clientele. The educated person is one who can adapt himself to his surroundings, can do better with less than the uneducated. He is one who is able to walk entirely around a subject, look at it from all angles, discard the defects, sum up the essentials and put them in a "nut-shell".

Until fifty years ago medical science was looking through a glass dimly. Since then progress has been as swift as navigation by air, too swift in fact for a lone man to keep step with it all. Science still has its enemies, its fakes and fakers. During the last half century of discovery and development, curative medicine has made great progress. But we are now in the early morning of a new era, in the profession, that of preventive medicine and preventive surgery. To bring modern medicine to the rank and file, to the masses, at a cost at which it may be freely utilized is the challenge to the profession and it represents the greatest social and economic problem of our nation to-day. To accomplish this noble undertaking, there must be team work, we must have co-operative medicine. There must be harmony and co-operation between the practitioner and the health departments, and also between the practitioner and the specialist. There must be a bringing together, a classifying and a codifying of medical knowledge among all classes from the faithful neighbour nurse to the most highly specialised specialist, and this medical knowledge must be applied to the social and economic life of our people.

To succeed in this momentous undertaking the practitioner must be

shown a vision, and he in turn must educate his clientele. Much of this knowledge will have to be converted into a digestible form and given to the public through the lay press since the busy practitioner cannot take time to do it all as rapidly as it should be done.

One of the first moves in this theatrical performance of service to the public will be a redistribution of physicians, and evening up of the suffering rural community and the overcrowded city. There has been a strong tendency on the part of some specialists and even general practitioners to measure their success by enormous fees extracted by high power salesmanship rather than the productive service rendered their patients. And other members of the profession have been not unlike the candle fly, attracted by the bright lights, they continue to buzz around until they die rather than get out in the small town of rural community where service is begging for help. And then the question comes as to how the proper distribution of members of the medical profession is to be accomplished. In the first place there must be some radical changes in our medical education. There must be more practical men connected with the schools as teachers, men who know and have experienced conditions in the rural communities and men who have been able to meet them successfully; men who are able to teach otherwise than in terms of big hospitals, interns, and registered nurses; men who have some idea of the human body as a whole as well as theoretical knowledge about the enemies that attack it. And then pre-medical education must be broader and more comprehensive. The student applying for entrance to the medical school must be studied more as to his traits of character, his service soul, his vision for relations in our human economics, rather than his accuracy in answering the catechism of hypothetical and obsolete questions. The private practitioner must have vision and training and he must possess a missionary spirit.

The next step in bringing well-trained medical men to the rural communities is the development of the open community hospital. It must be multiplied by hundreds. Its development is the heart of the economic question.

The people must be educated to this institution.

The public must understand that the essentials may be had even in a five-bed as well as a five-hundred-bed hospital and that their physical safety is about as secure with a good general practitioner as it is with a multiplicity of specialists, and that financially they are much more secure. These are some of the national problems of the medical profession. The solution of these is resting heavily upon the shoulders of the medical editors. The successful accomplishment of the task requires much new education of the profession and of the public. Public sentiment is the chief weapon of warfare in this accomplishment. To excite it to action will require the tact and the talent and the insight and the ingenuity of the medical editors as a unit.

The medical editor must ever keep square before his mind his individual problems, the chief of which is to see that his reading clientele is kept informed as to the latest and best in modern medicine. A medical editor can hardly be expected to possess all this information, but he should have a fair idea where to find it. He should know the most able man available to write a symposium on a timely subject. The medical editor should be on guard against the unbaked paper that might be misleading to the casual reader, and if it is published, administer an antidote with a few tactful words in the editorial column. At the same time he should be cautious and considerate of the paper of the essayist who was asked to contribute for his own development rather than for value of his paper to others. A little start to some men means a big finish in the end.

To sum it all up, the editor of a medical journal should be all things to all of his readers in order that the profession may be more efficient in its service to the public. There is no class of men upon whom opportunity is smiling so lavishly at this time and to whom duty is pleading so earnestly (*Medical Mentor, April 1930, Official Journal, American Medical Editors' and Authors' Association*).

ANEMIA AS A DEFICIENCY DISEASE

With Special Reference to the Inorganic Constituents

BY

HARRY L. HALL, M.A. M.D.,
Jersey City, N. J.

Our knowledge concerning the etiology and treatment of anemias has been almost revolutionized within the last four years. The studies of Whipple and associates; Minot and Murphy; McHargue; Hart, Steenbock, Waddell and Elvehjem; and others have established pernicious anemia as well as certain other types of anemia as deficiency diseases.

Liver diet, advocated by Minot and Murphy, and later, liver extracts, prepared according to the method of Cohn, etc., constituted the first really successful treatment for pernicious anemia, and this treatment has been found to be of value, also, in other types of the disease. The successful use of liver and liver extracts was immediately followed, of course, by attempts to isolate the active substance but as yet these efforts have not altogether been crowned with success. We have not been brought nearer the solution of the problem by the researches of investigators in various fields, and it now seems extremely improbable that any single factor is responsible for the hematopoietic property of liver.

This property is apparently not peculiar to liver, as other materials, including cabbage, lettuce, apricots,

kidney and, more recently, spleen; pancreas and stomach have been found to produce similar results in the stimulation of hemoglobin production.

IMPORTANCE OF INORGANIC SUBSTANCES

It has been assumed by various investigators that the animal body requires some organic complex, as well as, iron for the building of hemoglobin. This view was originally adopted by Hart, Steenbock, Elvehjem and Waddell, when they found that iron-free extracts of cabbage and yellow corn meal acted as satisfactory supplements to a milk diet to which inorganic iron had been added. They were afterwards led to try the ash of cabbage, lettuce, and other materials, and found them practically as effective as the original material. Robscheit-Robins, Elden, Sperry, and Whipple, who had previously found the ash of apricots, liver and kidney to be effective in dogs in which anemia was produced by bleeding, reported also that the ash of these materials was effective, although not to the same extent as the original materials.

These experiments demonstrated that the inorganic constituents of the hematopoietic foods were responsible for at least a part of their value. It had long been recognized that minute amounts of various metals were present in plants and animals and that they might play an essential roll in metabolism. The pioneer work of Gabriel Bertrand in the determination of the elements present in small amounts in vegetable and animal tissues, as well as in soils, and their action as co-enzymes is well known.

Following the work of Bertrand, on soils, McHargue made a study of the soil of the blue-grass region of Kentucky. He found that this soil was especially rich in manganese and copper and that blue-grass grown on it was likewise rich in these elements. The superiority of the horses bred in this region is, at least in part, accounted for by the quality of the blue-grass pastures.

After showing that these elements were absolutely essential to the growth of various food-plants, Mc Hargue demonstrated that copper was essential to the production of hemoglobin in the albino rat. This observation was also made independently by Hart, Steenbock, Waddell, Elvehjem at about the same time. The same investigators found that the albino rat was well adapted to studies in nutritional anemia and their technic has since been widely adopted.

In our own laboratories, rats are weaned at three weeks and placed on an exclusive milk-diet. When the hemoglobin level falls to 6 Gm. or less per 100 cc., which occurs in from 4 to 5 weeks, 0.2 mg. of iron daily, is added, to the diet together with the supplement to be tested. If 0.2 mg. of iron alone is added the hemoglobin usually continues to fall or, at best, rises only slightly and the animals die after a short time. Large amounts of iron added to the milk diet have been reported to have a favourable effect, but caution must be exercised in accepting such results, as milk contains the inorganic elements that have been found to supplement iron, although generally in insufficient quantities, while the iron compounds used are also likely to contain these elements as impurities.

Analyses by McHargue, and by Hart and Steenbock, show that copper is present in liver in much greater proportion than in muscle and most other tissues and that commercial liver extracts contain a large proportion of copper present in the liver. Manganese, zinc, nickel and cobalt are also present in greater proportions in liver than in other tissues. In general, foods effective in anemia have been found to contain copper and manganese in larger proportions than those ineffective.

Many studies have been made on the treatment of experimental anemias with copper, manganese and other metals. In addition to copper and manganese, zinc, nickel, cobalt, ger-

manium and arsenic have been reported to be effective. In our own laboratories, many of these results have been corroborated and extended. We have found that the dosage of the metals is very important: if too small, no definite stimulation of hemoglobin production results; but, on other hand, if the dosage is too large, the maximum production of hemoglobin is not obtained. Within certain limits we have worked out the optimum dosage for copper, zinc, manganese, cobalt, nickel and germanium, but when more than one metal is administered, the dosage of each one must be reduced. This result would suggest that all of the metals act in the same way and that one can be substituted for another. That this is not altogether true, is shown by Mc. Hargue's experiments on plants and by our observations that much better results, both on growth and hemoglobin production can be obtained by a properly balanced combination of metals than by any one or two metals separately. The relative proportions of the various metal in plants, liver and other tissues is a guide of considerable importance in determining the respective amounts to be administered.

With our present knowledge it is useless to speculate on the mechanism by which metals influence the building up of hemoglobin, but it is interesting to note that the elements demonstrated to have a definite effect in this direction include all those having atomic numbers from 25 to 33, with the exception of gallium. It is sufficient to observe that the recent studies of effects of minute amounts of inorganic elements are leading to entirely new ideas in regard to the essential character and functions of the inorganic substances in plant and animal life. It seems evident that these are just as essential as the organic food accessories and that diets deficient in these elements are responsible for certain type of anemia and possibly other nutritional disturbances.

Numerous observations have also connected anemia with a deficiency of

vitamins, and clinical studies, as well as animal experiments, have shown that deficiencies of vitamin A and probably other vitamins, are factors in the production of anemia.

Koessker, Maurer and Loughlin, through animal experiments and clinical studies, conclude that blood regeneration cannot take place without a sufficient amount of vitamins, especially vitamin A. Berglund, Keefer and Yang report a deficiency anemia in Chinese, which shows a prompt response when treated with cod-liver oil. Jones, etc. report that nuclear extractives are effective in anemia. They conclude that nuclear substance contains an unknown hematopoietic stimulant, but it may be suggested part of the effect is due to metals or vitamins contained in their extracts.

In the use of liver extracts it is frequently observed that the extract does not represent the entire activity of the liver from which it was made and it seems reasonable to assume that this is due to the fact that it does not always represent the entire metallic content of the liver, although analysis show that the copper and other metals are more or less concentrated in the extract. The absence of vitamins present in the original liver may also be partially responsible for the lack of activity. The ash of the liver also fails to represent the entire activity of the liver and this is easily explained by the absence of vitamins and possibly other organic factors. Koessler and Maurer advocate the treatment of pernicious anemia with a high caloric diet, rich in vitamins. They include in their diet liver, brains, kidneys and vegetables, all known to be rich in the mineral supplements as well as in vitamins.

The most rational treatment of the deficiency anemias would therefore seem to be the administration of definite amounts of the essential inorganic factors, with a nourishing diet rich in the vitamins, especially vitamin A, the use of cod-liver oil, if necessary, and the avoidance of any gastric or digestive disturbance. In

order to avoid gastric irritation, it is important to administer the metals in a non-astringent form and this has been accomplished in our experimental and clinical studies by the use of compounds insoluble in aqueous media but easily absorbed from the intestinal tract.

The administration of iron is desirable, and even when iron is not deficient in the diet, an additional quantity does no harm, if given in a non-irritating form. The good results that often follow the use of Bland's pills, elixir iron quinine and strychnine and other popular iron preparations, prove that iron has a useful place in the treatment of anemias; and some of the failures, at least, have been due to the lack of the other essential metals and perhaps to vitamins in the diet. Anemic rats, on a milk diet, do not show satisfactory blood regeneration when treated with copper, manganese, zinc, cobalt and nickel in proper proportions, unless, about 0.2 mg. of iron per rat per day is added to the milk which itself supplies from 0.06 to 0.12 mg. of iron daily. As any mixed diet contains more iron than an inclusive milk diet, we have not found it necessary to use as much iron in our clinical work as the amount required by rats on a milk diet would indicate.

Rats have shown an average increase in hemoglobin from 6 Gm. to 17 Gm. per 100 cc. when inorganic supplements, in proper relative proportions, were added to the milk and iron diet.

Most cases have shown improvement on this treatment, but where dietary deficiencies have no part in causing the anemia, no improvement can be obtained.

Summary

1. The successful treatment of pernicious anemia and certain other anemias with liver diet and with the inorganic constituents of liver together with the results obtained in the experimental anemia by feeding various animal, vegetable and mineral substances, show that this type of

anemia must be regarded as a deficiency disease.

2. Anemia may result from a deficiency of inorganic elements or of vitamins or possibly other organic factors. In many cases there may be a deficiency of both organic and inorganic factors.

3. The logical treatment from this type of anemia is the administration of a properly balanced mixture of metals, including a liberal dosage of iron, in a non-irritating, readily assimilable form, with a diet rich in the organic food accessories, especially vitamin A. Cod-liver oil should be administered when necessary, to supplement vitamin A in the diet, — (*Clinical medicine and surgery*, November 1929.)

Notes on Treatment of Diseases.

N.B.—These notes are intended to supplement the treatment given in ordinary text books and neither to be expected nor possible to be exhaustive.

1. **Asthma**:—Bronchial:—Adrenaline 8 ms of 1 in 1000 solution to be given slowly and intramuscularly. The untoward symptoms are cyanosis tremor, pallor, thoracic constriction and weak pulse. Its use in cardiac hypertrophy and nephritis is contra-indicated (*Sajous*).

2. Ammonium Iodide 2 drams, Tincture Lobeliae aeth 2 dr. Tinct. Belladonna 2 dr. Extratum Grind. Robust 4 drams, Exs, Liquirit 4 drams, Syrup Toulou 4 ounces a teaspoonful three times a day (*Postgraduate Medicine*).

3. Calcium Chloride by mouth for a long time or intravenously.

4. Vigintol is good.

5. **Asthma Cardiac**:—It comes on suddenly at nights among elderly persons accompanied with little or no pain but there is suffocation. Standing upright will relieve the symptoms; a tying of a rope in extremities so that

the work of the heart may be spared gives relief. Morphine is the best remedy during the attack; Epinephrin which is said to be an usual remedy has been followed by death in a few cases. (*J.A.M.A.*) and *Practical Medicine*.

6. **In Children**:—Sometimes residence in a seashore improves it, at other times it affects badly; breathing exercises are good. During the attack aconite, atropine, or epinephrin may be given and as a prophylactic Pot. Iodide 0.3 to 0.5 grams alternately with arganotherapy as Pancreas Extract is good. Thyroid also is good.

7. Old tuberculin injection (B.W.Co.) to be given once a week beginning with 0.1 cm of a dilution of 1 in 1,000,000 and increase the dose on each injection by 0.1 c.c. or 0.2 cm. until 0.1 cm of a 1 in 1,00,000 (*I.M.J.*)

8. Calcium mixture containing calcium chloride 15 grains, simple syrup 15 ms. and water one ounce; to this is added $\frac{1}{3}$ ms of atropine sulph sol. This is given thrice daily and for two weeks and the results watched, then caffeine mixture which contains caffeine, sodium iodide, dilute hydrochloric acid and decoction of coffee.

Before the mixture is issued 1-4 to 1-2 grain of Epinephrin Hydrochlor is added to each dose; to be given in dram doses during the attack day and night. Not more than $1\frac{1}{2}$ grains of epinephrin to be given in a day and for children proportionately smaller doses.—*J. A. M. A.*

9. There are two varieties of Asthma (1) Sympathetic tonus when the adrenaline secretion in the blood is low and (2) Vagotonic where the blood pressure is high. In the first case adrenaline to be given at the beginning followed by Pot. Iodide grs. 3. Tinct. lobelia 10 ms, Soda Bicarb gr. 10. Sodium chloride gr. 10. Spt. Chloroform 10 ms. and Aqua Anethi 1 ounce. This will loosen the sputum which is rather viscus in this condition and lobelia paralyses the sympathetic nerve as nicotine.

A course of Ext. Orchitic substance or Ovary with suprarenal or thyroid

is useful to increase the defensive system.

In the second case Pot. Bromide grs. 5, Borax grs. 2. Tinct. Belladonna 3 ms. Spt. Chloroform ms. 10, Aqua 1 ounce. As the sputum is too liquid in this case this will lessen the secretion.

10. Pituterin and Nitroglycerine may also be given and the following in capsules 1 to 4 three times a day. If desired, this may be given in the form of an elixir. Sodium Bromide grs. 2, Pot. Bromide grs. 2, Fluid extract of Euphorbia 3 ms. nitroglycerine grains 1/200. Tinct. Lobelia 4 ms. (*Hare*).

11. Thyroid extract, suprarenal and orchitic substance if the blood pressure is below 120 mm, but if it is above add Anterior Pituterin (*Endocrine Survey*).

12. Local application to the nasal cavity of an ointment containing 30 to 60 ms. of Adrenaline chloride 1 in 1000 in one dram of vaseline or lanoline is good (*Sajous*).

13. Anaphylactin fortnightly injection (*Meurice*).

14. As Asthma is due to calcium deficiency calcium may be given.

15. Eukodol and Ephedrine are better than Ephinephrine.—(*J.A.M.A.*)

16. Iodo glydine 6 to 8 tablets daily.

17. Pot. Iodide drams 2. Liq. Fowler dram I, Vin. Ipicac dram 4, Tinct. Hyocymas drams 4, Aqua chloroform 8 ounces; a tablespoonful in water after meals three times a day

18. Sodium Arsenite grains 1/50, Ext. Nux. Vomica grain 1. Ext. Belladonna grains 1/4, Ext. Gentian grains 3. to be made into one pill and to be taken three times a day after meals.

19. Sodium Iodide is useful if given large doses, 30 to 50 grains a dose three times a day (*J.A.M.A.*)

20. Parathyroid to be given for three months.

21. For patients with a low blood calcium should be given. Calcium with parathyroid 1/10th to 1/20th of a grain

or with Thyroid 1/20th to 1/2 a grain three times a day and those with endocrine defects should be given Epiniphrine with posterior pituterin or thyroid twice or thrice a day (*J.A.M.A.*)

22. Ephetonin a synthetic preparation is good and may be taken orally.

23. The effect of injection of adrenaline may be prolonged by massage over a point of injection (*J.A.M.A.*)

24. The treatment during the interval of attacks is Pot. Iodide grains 1 to 4, Tinct of stramonium ms $2\frac{1}{2}$ to 10, Spt. Ammonium aromatics ms $2\frac{1}{2}$ to 10, Syrup ms 20, Aqua 2 drams with this may be added Phenazone grain 1. Sodium Bromide grains 2 at bed time (*Armitage*)

25. Ephedralin a combination of Epinephrine and adrenaline is good.

26. Sup 36 in early stage and Sup 468 in later stages parathormone strontium and calcium aspartate and acetyl choline. In chronic cases Iodide. Ichthyol and Thyroid internally, contramine intramuscularly and vaccine made of pathogenic organism in the intestines hypodermically. (*C.M.S.*)

27. FELSOL (*A.F.D.*) consisting of Phenazon 0.25; Antipyrine 0.4; Iodopyrine 0.25; caffeine 0.1; Susc Alb 0.01 and Ext Bruchy claddi 0.01; indicated both in cardiac and bronchial Asthma.

28. Adrenopituine (*A.F.D.*) the standardised post-pituitary extract and natural chemically pure adrenaline worth trial in all forms of Asthma uncomplicated with pregnancy or high arterial tension.

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case?" it is not sufficient to decide the treatment merely on the finding of Staphylococci, Streptococci, etc. There are hundreds of different strains of all kinds of bacteria. Different strains of Staphylococci and Streptococci usually attack different parts of the body and produce different kinds of lesions. One strain of Staphylococcus or one strain of Streptococcus may infect the intestine and induce intestinal fermentation, but will be incapable of attacking the Bronchi or the Larynx or of inducing boils. Other strains of Staphylococci, Streptococci, Bacilli etc. will be capable of attacking the respiratory organs or the throat but be incapable of attacking the skin, or inducing intestinal fermentation. It is remarkable that in practically all cases of common colds, bronchitis, laryngitis etc. there is ample opportunity for a heavy infection of the intestines from the seat of primary attacks, but it is seldom that any serious intestinal trouble arises in conjunction with such inflammations. Practically all bacteria are peculiarly regional in their capacity to attack the human body, that is why it is better to consider an infection from the point of view of the locality. The different Bacteriophages contain Staphylococci, Streptococci and Bacilli according to the regions of the body which these strains can attack. Therefore if it is an intestinal case the selection should be made from the two intestinal Bacteriophages that is, Bacte Intesti Phage or Bacte Dysenteri Phage. If the case is one of the exterior or a surgical case, Bacte Pyo Phage should be selected. If the case is one of the respiratory system, Bacte Rhino Phage should be selected.

GOOD FOOD AND FRESH AIR IN TUBERCULOSIS.

Aminobiase throws new light on the subject. By inducing certain of the same effects as fresh air and good

food on tubercular patients, Aminobiase can supplement and intensify the application of the drier air and better food theory. First of all let us remember that one of the physiological effects of fresh air, plenty of oxygen and ozone, is an intensified metabolism. This intensification of metabolism involves a more complete splitting up of nutritive proteins and a more vigorous digestion process. A truly vigorous digestion involves splitting up some of the proteins into Amino-Acids. Some of the Amino-Acids are of particular assistance in the nutrition of diseased cells enabling them to assimilate metals such as Calcium. The chief difficulty about Amino-Acids from the digestive system is that they are so easily eliminated from the kidneys that absorption and excretion are liable to run parallel. When they are injected you can get them concentrated for a time sufficient to be effective. Aminobiase is a solution of Amino-Acids which gives us exactly that resultant from the fresh air treatment which the Tubercular patient requires most immediately. This idea runs quite parallel with the good food idea. Stimulation to nutrition can be obtained by assistance of Amino-Acids. The action of Amino-Acids is in some way additional to the action of vitamins and supplement vitamins in their effects. Aminobiase contains the necessary Amino-Acids. In practice we find that in Pulmonary, renal and intestinal Tuberculosis, Aminobiase gives results that are always favourable and usually even brilliant. In other bacillary diseases, particularly in Sclerotic and emphysematous states, Aminobiase is usually advantageous in a remarkable degree. In some grave cases of Tuberculosis as for instance, those with hepatic degeneration where any remedy is bound to fail, we can at least usually obtain temporary relief with Aminobiase. In other grave cases there is usually a rapid modification for the better, even if a complete cure may not be attainable. Usually some improvement can be detected after the first

few injections and a very definite improvement after about 10 injections. Even in old and resistant cases, a general improvement in strength, weight and appetite is soon apparent. The same applies to bone cases and gland cases, although these may be more resistant to cure than diseases of the softer tissues. The duration of treatment varies with the age of the lesions. Recent lesions heal first. The older the lesion the longer time it takes to heal. Radio photographs show that the improvements are not merely functional but organic. In early Sclerotic Tuberculosis, acute or progressive, beneficial result is prompt and regular. In Ulcero-caseous forms with fever, marked improvement is obtainable. Hemoptysis is never caused even in patients so disposed.

When sputum becomes coloured this is a sure sign of improvement.

General rules of Treatment.

Form: Sterile solution. Ampoules of 2 cc.

Method of Administration: Subcutaneous or Intramuscular. (Quiet, painless).

Dosage: 1 ampoule every 3rd day or twice a week.

Variation: Interval of four or five days between injections in severe cases.

Course of Treatment: Minimum—at least 20 injections in severe cases for rapid amelioration. Definite results exceptional after injections in severe cases.

Reactions: Not pronounced and quite frequently absent, if any, transient and unimportant.

Contra-indication: Nil.

Advanced cases: Prolongation of life and relief of certain symptoms.

Supplementary treatment compatible with Aminobiase.

(a) Pulmonary Tuberculosis: Cough sedatives and Pulmo Calcium or Pharmasol Collo Calcium.

(b) Febrile forms: Cryogenine.

Alimentation: Does not affect the usual regime.

Other diseases: Cases of denutrition

SPECIAL PROTEIN NOURISHMENT IN PERNICIOUS ANAEMIA AND IN DIABETES.

The liver secretes certain substances which actively regenerate red blood corpuscles. Extracts containing these, are prepared in liquid and in powder form by various manufacturers. You have there the active extract for the regeneration of red blood corpuscles. You do not want to require always to be administering these particular liver extracts (which are expensive) to your patient. They want to look forward to the time when they can be free from liver troubles and from taking liver extracts; so you want to look not only to the active regeneration of red blood corpuscles, but also to the regeneration of these tissues which are in the body of the patient for that purpose, so that the patient will be able to generate within his or her body all the red blood corpuscles which he or she requires. Opocrin Hepar (tablet form) does this by supplying these Amino Acid groups which will easily nourish these tissues and regenerate them to the condition in which they were before they became diseased.

It is the same in the case of Diabetes. If you find a patient who has severe Diabetes or some of the serious sequelae from which Diabetic patients suffer, you have to use Insulin. Nothing else can do the job quickly enough. You cannot make a machine which will produce Insulin, graft it inside the patient and leave the patient with a machine inside him which will generate insulin or keep him well. That is a thing you cannot do. You must keep on injecting Insulin so long as it is necessary, but you do not

want that patient to look forward to a whole life time troubled by Insulin injections. You like that patient to look forward to the time when there might be some relief. The only way to do that is by a preliminary period of diet to reduce the fatty degeneration, combined with a long continued treatment with sufficient Pancrepatine to keep the sugar down to normal or nearly normal and to continue it long enough to allow the Pancreatic tissue to regenerate those proteins which will produce Insulin in the patient's body. Give the patient Insulin injections if necessary, but meanwhile provide for the restoration of the patient and the restoration of the Insulin secreting tissues to a normal condition by providing such substances as these glands require and which the patient at his or her age is not able to generate from ordinary dietetic substances. Of all the perfectly safe treatments for this purpose Pancrepatine serves most admirably. Simple preparations of Pancreas alone are too slow. Pancrepatine, containing Pancreas and liver, works much more quickly. Preparations containing arsenic and other toxic substances are unsafe, since long continued treatment without interruption is usually essential.

News and comments

The history of the termination of agreement between the Rural Medical Practitioner, Rayavaram and the Narsapatam Taluk Board referred to in these columns in November last demonstrates that the Rural Medical Relief Scheme as it is worked now, is a failure; those who are entrusted with the working of the scheme, excepting a few, have been utilising this scheme to further their own private and political purposes and the Government policy concerning it has been one of drift, and the baneful effects of drift will be followed by demoralisation and consequent waste of public funds.

One Dr. K. Narasimham was entertained as a Rural Medical Practitioner in Rayavaram by the Taluk Board of Narsapatam, Vizag District, on 14th June 1926 on a three year agreement. This Rural Medical Practitioner seems to be a smart young man and has been doing his professional work quite satisfactorily, as is evidenced by the reports of the District Medical Officer, Vizag, and several members of the Taluk Board not excluding its President. On or about 28 January 1929 the President, Taluk Board passed an order transferring this practitioner from Rayavaram to some other place and it was alleged that this and other concomitant transfers were brought about to appoint a son-in-law of a friend of the Taluk Board President as Medical Officers of Kota Uratla which was till then a Rural Dispensary and made into a pucca L. F. Dispensary just at the time; and the Rural Medical Practitioner of Uratla was transferred to Rayavaram to take the place of Dr. Narasimham who was till then, the Medical Officer of the Rural Dispensary at Rayavaram. The Rural Medical Practitioner of Uratla was responsible to attract the attention of the public and the Taluk Board by his good work and popularity which was the chief cause that led to the conversion of a rural into a pucca dispensary. The action of the Taluk Board president in ousting this practitioner from the dispensary at Uratla where he had been working satisfactorily and thus overlooking his legitimate claims by bringing an outsider to fill in his place, was resented by the rural practitioners in Narsapatam Taluk Board. In this connection, it may be mentioned that the Public Health Minister expressed himself in plain terms some time ago on the floor of the Legislative Council that instructions were issued to the Taluk Boards to consider the claims of Rural Medical Practitioners for appointment as medical officers of the dispensaries under their charge at the time of conversion of such dispensaries into pucca L.F. dispensaries.

Dr. Narasimham protested against his transfer which was against the spirit of Rural Medical Relief Scheme and refused to hand over charge taking protection under G.O. No. 1154 P.D. dated 14th June 1927 in which the Government seem to have issued instructions not to transfer Rural Medical Practitioners from one place to another, and this action on the part of Dr. Narasimham was supported by the District Medical Officer, Vizag.

The Taluk Board President resented that his authority was questioned and not heeded to, and began finding faults with Dr. Narasimham in matters which did not relate to his duties as Rural Medical practitioner; for example, he was once asked to explain why he organised a meeting of Rural Medical Practitioners' Association without previous sanction of the Taluk Board President. Dr. Narasimham rightly answered that no such sanction was needed as the Rural Medical Practitioners were neither Government servants nor the servants of the Taluk Board but private medical practitioners doing honorary work. This straight answer exasperated the taluk board president and finally on 6th March 1929, two charges were framed against this practitioner by the Taluk Board President, viz:—

- (1) That Mr. K. Narasimham, Medical Practitioner, Rayavaram, has been leaving station without previous sanction of the President.
- (2) That Mr. K. Narasimham has not been treating professionally and supplying the necessary medicines to the necessitous poor free of all charges.

The Rural Practitioner was asked to tender explanation within a week from the receipt of the proceedings of the Taluk Board. An explanation was submitted within the prescribed time, and as the charges were not of a definite nature as required by G.O. No. 2195 P.D. dated 3rd November 1927, the practitioner requested the President to give him an opportunity to explain his case direct to the Taluk Board. This request was not complied with and the Board passed a resolution on 23rd May 1929 that the charges

framed against the Rural Medical Practitioner were substantiated by good evidence and that the explanation offered was quite unsatisfactory, and consequently his services were terminated at the end of the term of agreement, i.e., on 14th June 1929. Copies of the resolutions were forwarded to all the authorities concerned including the Government and the District Medical Officer, Vizag. Dr. K. Narasimham refused to obey this order. He thought he had been unnecessarily persecuted and appealed to the Government. We are not aware what took place between the Government and the Taluk Board from 15th June 1929, the date of appeal by the Rural Practitioner to 5th February 1930 when the Government passed orders on the appeal to the effect that "the Government see no reason to interfere with the orders passed by the Taluk Board in the matter."

The charges framed by the Taluk Board President were not definite as was required by the G.O. referred to above. It was not mentioned in the charges on what dates Dr. Narasimham left the station without previous permission and who were the poor necessitous patients to whom he refused free treatment and who were the person or persons that made these reports. Naturally Dr. Narasimham denied the allegations and produced written evidence of his having availed himself of casual leave whenever needed by applying to the District Medical Officer and produced also the certificates issued by a Taluk Board Member to the effect that Dr. Narasimham attended to all necessitous poor till the date when the charges were framed against him. To those who are familiar with the doings of the local bodies and their influential presidents, the proceedings passed against this practitioner will not be a surprise, but we are really at a loss to understand how the Government could swallow their own order that in all such cases where a rural medical practitioner is charged for breach of agreement, the charges should be

definite and all available facilities should be given to the accused to prove his innocence. Nothing of this sort was done in the case of this practitioner who discharged his duties as a medical man to the entire satisfaction of the authorities concerned, including its President, as is evidenced from a few extracts of the reports:—

Visiting Reports for the years 1926-29.

By Mr. V. D. Ismail, Member, Taluk Board (10-4-26).

... I believe that this Doctor is doing or rendering a willing service.

By Mr. K. Sanyasirasu, Member Taluk Board (26-5-1926).

... The Sub-Assistant Surgeon is an young energetic gentleman and is attending to the patients carefully.

By Mr. P. Ramalingaswami, Vice-President (29-6-26).

... The Sub-Assistant Surgeon is very popular.

By Mr. S. Satyanarayanarasu, President, Narasapatam Taluk Board (26-10-26).

... I am glad that the doctor is very popular throughout and I hear that he is successfully treating the cases.

Inspection Report of Medical Institutions by the Asst. District Medical Officer on 9th December 1927.

... The Medical Officer is keen in his work and deserves every encouragement. I am pleased with what all I saw.

The Medical Officer is smart, takes good deal of interest in his work and has equipped himself with necessary instruments and appliances. He is doing good work.

By Mr. N. Kesava Rao, Vice President, Narasapatam Taluk Board (26-3-1928).

... The doctor seems to be hard working and sincere worker.

By Mr. K. Sanyasirasu, Member Taluk Board (7-6-1927).

... The number of out-patients that are attending the dispensary is indicative of the popularity of the institution and the confidence which the people have in the sub-assistant surgeon.

By Mr. Satyanarayanarasu, President, Narasapatam Taluk Board, (28-8-28).

The Doctor is getting on popular here and treating the cases very successfully.

Extract from Inspection Report of Medical Institutions dated 14th December 1928 by the Assistant District Medical Officer.

The sub-Assistant Surgeon is taking sufficient interest in his work. He is popular of Rayavaram and neighbouring villages.

Extract from Inspection Report of Medical Institutions dated 28th December 1929 by the District Medical Officer.

The Dispensary is quite neat and tidy and the Medical Practitioner will be required to keep daily registers up to date. He seems to have been doing good work.

A popular, conscientious, energetic, young practitioner who acquitted himself in an exemplary manner is to be a victim to the whimsical and vague charges of a Taluk Board President who a few months before he ordered for the transfer of this practitioner, said all good things about him. His faults as far as we could judge were his youth and want of tact and experience in moving with such persons as members of Taluk Boards and their presidents. Perhaps his soul did not permit him to assume what he was not and his only sin seems to be his asserting himself what he really is, viz., an independent medical practitioner.

What happened subsequent to the order of the Taluk Board in terminating the agreement is worth the attention of those interested in equity and fairplay. We mentioned above that Dr. Narasimham refused to hand over the Rural Dispensary and appealed to Government on 14th June 1929, and from this date till 5th February 1930, viz., 8 months, he ran the dispensary, and during this period the dispensary was inspected by the Assistant to the District Medical Officer, Vizag. who remarked "The dispensary is quite neat and tidy.....He seems to be doing good work", and the returns submitted by Dr. Narasimham to the President, Taluk Board and the District Medical Officer since the date of appeal to Government were accepted by those Officers and it cannot be said that the District Medical Officer was not aware of the fact that Dr. Narasimham's services were dispensed with as the copies of the orders were forwarded to him. Representations were made to the Government that the practitioner should be paid the subsidy for the period he ran the dispensary and that, to the entire satisfaction of the District Medical Officer, and the Government Order that the practitioner was not entitled to any subsidy subsequent to 10th June 1929 is devoid of all equity

and fairplay. Will any member of the local Legislative Council take up this case and get justice to this practitioner and suggest to the Government that it is high time that the Rural Medical Scheme should be amended in the near future so as to make it really worthy of the purpose for which it is meant. In the meantime, may we suggest to all rural practitioners that they should be all united in their action and take necessary advice in all matters from the Secretary, Rural Practitioners' Association, in whom they have an able exponent of their cause? It is high time for the rural practitioners to meet in Conference in the near future and forward a memorial to Government suggesting a more workable scheme, and nobody could do this better than they themselves with the help of their Secretary who has had sufficient experience in this direction.

The parting advice given by Major General Megaw when he laid down his office as Surgeon-General of this province that efforts should be made to bring about harmony and union between Government paid practitioners and private practitioners seems to engage the serious attention of a few prominent practitioners in Government service. So far so good, and we hope the Government paid practitioners will soon realise that the remedy is in their own hands. Let such of them who have been misusing the privileges of private practice keep themselves within their bounds or else their purpose for bringing about unity is likely to be misunderstood on account of the existence of private medical institutions such as nursing homes, laboratories and pharmacies which are now run by some prominent members amongst themselves.

Now that some Officers in Government service are running openly nursing homes, it will be worth while for the Surgeon General to advise the Government whether it is possible to

lessen the expenditure in hospitals whose Officers are these homes by prohibiting admission to rich people and reduce the superfluous staff as there will be no cause for complaint from the rich about the handling of cases by Surgeons', assistants. The poor can't have their choice because they are poor. Will the Surgeon General be kind enough to take up this suggestion?

Our readers or at least the candidates who stand for election for vacancies in the Medical Council would remember that the Registrar of the Medical Council is the Returning Officer for the ensuing elections. The Registrar is an extraordinary person who has his own methods in doing things. The Medical Registration Act will have soon to be amended to suit the convenience of this Officer. But till then, the candidates, especially the new element would do well to read Dr. Kamath's article "Madras Medical Council Election" Signs are not wanting that the proceedings of all the three elections will be materially vitiated. We refer our readers to the Precept sent by the President of the Council intimating about the vacancies and the election procedure. It is mentioned in the Precept that the last day for the receipt of the voting Papers is the 20th instant, but in the instructions in the voting papers sent to the voters, 24th, 25th 28th June have been mentioned as the last dates for this purpose for the three elections respectively. The voting papers are sent by registered post so that they may reach the voters safe. Any instructions that the returning officer may or might send will not be regular and even if it is conceded to be regular, such instructions should also be sent by registered post.

Another important fact that the candidates should know beforehand is that the Registrar has no belief in scrutiny. At least it was denied to Dr. Kamath when he was a candidate for the last election. He did

not have an opportunity to question the returning officer, as he was returned by an overwhelming majority. On account of this belief and other strange happenings in that election, Dr. Kamath has been trying to test the various beliefs of this Officer on the floor of the Medical Council without any harm to anybody concerned. Nobody could know about Dr. Kamath's elections except himself, the Returning Officer and his clerk. Yet nobody would believe, though it is a hard fact, that there are members in the Medical Council who want 'fairplay' even at the cost of the good working of the Madras Medical Registration Act and thought that others could narrate Dr. Kamath's experience. How and who we have no knowledge so far and hope to know all about this early in October.

The procedure adopted regarding the return of ballot papers is very funny. Nobody except the returning officer could get out of this muddle. There are three elections, one in each group. Three different dates, 24th, 25th and 28th June have been fixed for scrutiny, one for each group. There is nothing on the covers returned by the voters to indicate to which group he belongs and consequently the ballot papers of all the three groups will be mixed up and with what ingenuity the returning officer will choose the ballot papers belonging to the 1st group alone without opening all the voting papers on 24th June is beyond our comprehension.

Voting by ballot has been introduced to ensure secrecy but the returning officer seems to have no faith in secrecy. He has mentioned the serial numbers of voters as they appear in the medical register and these appear both in the counterfoil as well as in the voting papers, and so anybody could, very easily know who has voted for whom by referring to the Medical Register. The Medical Registration Act requires that the serial number of voting papers should be printed and not the serial number of the voter as it appears in the register.

Candidates! Please prepare yourself well for this game of election.

We have received a lot of communications from the voters regarding the impending elections to the Madras Medical Council, two of which are from the candidates themselves. Excepting a few, all the rest of them are of a personal nature and we very much regret that we are unable to publish them, and space does not permit us to publish three long letters which are of a general nature embodying the views which we have conveyed to the voters in the editorial columns of our May issue, and as such we feel that it won't serve any purpose to repeat these views. Yet, we will give expression to a few views contained in some of these communications.

We learn that Dr. Nimbkar, the retiring member who has been representing I Group in the Medical Register would have, as in the last instance, been returned unopposed but for the intervention of a prominent member in the I.M.S. whose view seems to be that this Group was created by the originators of the Madras Medical Registration Act to find a constituency for the European members of the medical profession. Whether this information is accurate or otherwise, it is natural for Europeans to guard their interests so long as they are in India. No use of quarreling with anybody on this score, but we only wish that the European element in the Madras Medical Council will not obstruct to bring about any healthy reforms, at least such of them which do not affect their interests such as the running of the Office of the Medical Council in the way required by the Medical Registration Act, for it has been painful for us to note that even in the matter of routine work, this office is far from normal in spite of the fact that the President of the Council is the highest officer under the Government in the Medical Department.

A few graduates wish us to do propaganda of non co-operation advi-

sing the voters not to exercise their franchise as a protest that ever since the Medical Registration Act came into existence, the tendency has been to cripple the rights and privileges of the independent medical profession. If the candidates belonging to this group took the voters into their confidence by publishing their programme of work in the Medical Council if returned, and the sitting candidate mentioned about his past work in the Council as expressed by us in our May issue, no necessity would have arisen for giving expression to such strong views by these graduates. The time before the voters is very limited and we would only suggest to them to make the best of a bad bargain.

We are glad that the members of the 3rd Group who form the largest number of practitioners in the Medical Register are taking much better interest in the election than hitherto. Whatever be the chances for the new-comers in the field of election, a contested election is bound to educate the electors and awaken them to their sense of responsibility.

Dr. U. Rama Rau who has been representing this group for the last 15 years in the Madras Medical Council has rightly realised that he should give room to younger men to represent this group in the Medical Council. All the same he stands for re-election and appeals to the voters to return him to the Council to put his last fight especially at a time when the All India Medical Council Act is on the anvil of legislature. His having expressed his desire to seek re-election in the Council of State to put his fight for this class of practitioners in that house, has given rise to a serious issue which has been raised by over half a dozen voters in this group who wish us to point out to the electorate that in case Dr. U. Rama Rau is returned to the Council of State, the interests of the practitioners of this Group will be jeopardised in the Medical Council on account of the absence of Dr. U. Rama Rau from Madras at a time when the Medical Council meets,

i.e., for two days in the year, one day in March and one in October, as it always happens that there have been sittings of the Council of State during these two months. This is a legitimate issue worthy of an answer from the candidate.

We were about to address Dr. Rama Rao and get an answer from him regarding this issue but his "Rejoinder" appearing in the advertisement columns of "The Hindu" has confirmed the doubts raised regarding his attendance in the Medical Council, and his excuse that in case he had to be absent at all, it was on account of his serving larger interests elsewhere, will not be to the interests of those whom he represents in the Medical Council. Dr. Rama Rao has raised many other doubts in the minds of those who have so far not exercised their franchise by raising other issues. Instead of treating the matter dispassionately as was expected from one of the position and status of Dr. U. Rama Rao and answering the queries of his opponent, Dr. Rama Rau seems to be infuriated and threatens Dr. Krishna Menon by suggesting that the Medical Council should take action against him for referring that "the present state of affairs of the Medical Council is far from satisfactory as one reads it in the columns of *The Medical Practitioner*".

Dr. Rama Rao does not stop there. He drags Dr. Kamath in this controversy and makes a libellous accusation by stating that "a Committee was appointed to go into the allegations made against the Registrar and his office in *The Medical Practitioner* and those allegations have been found to be untrue and unjustified". Dr. Rama Rao is guilty of a gross breach of the rules governing the proceedings of the Medical Council in referring to matters not yet reported to the Council and not therefore capable of confirmation by the Council before they could be considered fit for publicity. As regards the fact contained in the statement:

they are veritable jumble of truth and fiction, the latter predominating to an incredible degree. It is true that at the instance of Dr. Kamath and on his resolution a committee was appointed to reorganise the Registrar's office and the staff of the Council and the resolution which appeared on page 44 of the November issue of this journal runs as follows:—

"A committee of three members of the Council including the mover of the resolution be appointed to reorganise the office of the Registrar and the staff of the Council".

Under the circumstances it is inconceivable that such a shrewd man as Dr. Rama Rao should have indulged in statements which are likely to be misunderstood by the electorate to whom he addresses his "Rejoinder" as the Registrar is the Returning Officer conducting the impending elections. They will not fail to observe that Dr. U. Rama Rao has been made by the Returning Officer as "Hon'ble though he is not, having resigned his seat in the Council of State months ago and his name appears first in the voting paper though, according to the alphabetical order which has been followed by the Returning Officer for printing the names of the candidates in voting papers regarding the other two elections Dr. Rama Rao's name cannot appear first. Regarding ourselves including Dr. Kamath, we do not wish to be praised much less to be flattered for our humble service to the profession. What Dr. Kamath has achieved in the short space he is in the Council and has been striving to rectify whether it be "unsatisfactory state of affairs" in the Medical Council or outside, he did as part of his duty and in accordance to the pledges he gave to the electorate. There is no justification in Dr. Rama Rao's attack on Dr. Kamath in his reply to Dr. Menon. It is quite possible that Dr. Rama Rao is irritated. We can assure Dr. Rama Rao that Dr. Kamath cannot mistake his duty for "achievement". A few more facts which we mentioned regarding the procedure adopted by those who are responsible to run these elections, appearing else-

where, will be additional proof, if such proof is wanted at all, how far Dr. Rama Rao's certificate about "The Registrar and his office" could be relied upon. It is very unfortunate that Dr. Krishna Menon did not give an opportunity to his opponent Dr. Rama Rao to publish his "Rejoinder" in "The Hindu" earlier and thus gave the electorate enough intimation and time to exercise their franchise compatible to the issues raised by Dr. Rama Rao in his "Rejoinder".

We have information that the Registrar, Medical Council has been taking an initiative in proposing to the Government names of persons who are to be nominated to the Madras Medical Council, and these members count as many as seven in a Council of 14 with the Government nominated president. Sometime ago, the name of a gentleman who had been defeated in open election was about to be submitted by the Registrar but Major General Megaw, the then president, was too shrewd to allow such an unconstitutional procedure. If the Registrar is allowed the extraordinary privilege of choosing members to fill in the vacancies in the nominated seats, it is worth the consideration of the Government if there is any need for such a body as the Madras Medical Council. All the powers now vested in the Council may as well be transferred to the Registrar and the Council dissolved for good.

Dr. S. R. BHAT, M.B.B.S., L.D.S.,
(Calcutta.)

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IS IT CEREBRAL MALARIA?

Patient Rukmani, a primipara aged 23, was seen by me at 2 a.m. on 11-2-1930 for weak labour pains. Labour pains seem to have begun three days prior to this. The following was the condition on examination. Pains weak though regular; Foetal parts could be felt on the abdominal wall. It was a case of vertex presentation. F.H. 132 per minute. Mother's pulse steady and 80 per minute. Vaginal examination o.s. 3/5 dilated, membranes intact. Posterior fontanella could be felt very easily. Presentation was L.O.A. A soap and water enema was given with good result. Membranes ruptured at 4 a.m. and as the child was not delivered even till 6-30 a.m., $\frac{1}{2}$ c.c. of pituitrin was given under the deltoid, and fundal pressure was applied, with the result that an apparently dead male child was delivered. Artificial respiration was given for about 10 minutes to resuscitate the child. There was cord round the neck of the foetus and that would probably explain the delay in delivery. There was a slight perineal tear and one silk suture was put. Placenta was expressed by abdominal pressure and two drams of ergot with 10 ms. of Tr. moschi and brandy were given in 1 ounce water. The following mixture was given for 6 days, and for the first three days I visited the patient both morning and evening.

Quin. sulph gr. 20 Acid Sulp- 9 S.
her Lreuh
Ext. Ergot Liq 1 dram.
Tr. Moschi m. 40.
Aq. vitae 1 ounce.
Aq. ad. 4 ounces,
one-ounce every 6 hours.

On the third day a purgative was given and as the patient was feeling quite well without any complaint, I ceased visiting but continued the mixture. Patient was said to be doing well.

On the 9th day of the puerperium, i.e., on 19-2-1930, patient had her bath for the first time after delivery. At 1-30 p.m. however, she had a sharp rigor followed by sweating and at 5 P.M., when I saw her, the temperature was 102.F and pulse 110, though patient said she felt all right. No. P.V. was made, but the following mixture was given. (No mixture was given on the 7th and 8th day of puerperium.)

Tr. Moschi	M. 20;
Brandy	1 ounce;
Quin Sulph Dil	grs 20;
Acid sulph	q. s.
Mag sulph	1 ounce.
Ext. Ergot. Liq.	1 dram.
Aq. ad.	4 ounces.
One ounce every six hours.	

She had 4 watery motions in the small hours of the morning of the 20th. at 10 A.M. Temperature 104.4 pulse 120. A p.v. was made. The lochia was normal in colour and small. However a hot intravaginal douche of Lysol Lotion was given, the silk suture that was still there, was removed, and the usual mixture continued. On abdominal examination the uterus could be felt just over the symphysis. At about 5 P.M., there was another rigor, after which the temperature shot up 105.4, pulse 128 while at 9 P.M. it was 106.8. In spite of the high temperature, patient said she did not feel it and was sitting and talking as usual. As I did not see the patient, after the 14th till the 19th and as the patient was not conscious of the fever even though it was 106.8. I thought she ought to have had it even days prior to the 19th. In the absence of laboratory for blood examinations, diagnosis was perplexing. As lungs and lochia were normal, and as the pulse accorded with the temperature, I treated it as a case of cerebral malaria (hyperpyrexial), I gave 5 gr. of acid quinine hydrochloride in 2 c.c. of water intramuscularly, and continued tepid sponging till 12 midnight when the temperature was 103.2. The usual

quinine ergot mixture was continued every 6th hour.

	Temp.
21-2-1930 7 A.M.	100°F
9 A.M.	100.4°F
2 P.M.	105.4°F
5-30 p.m.	104.8°F
9 p.m.	103.8°F

5 grains of acid quinine hydrochloride in 2 cc. of water. The usual mixture every 6 hours.

	Temp.
22-2-1930. 7 A.M.	98.2°F
10-30 A.M.	100°F
3 P.M.	103.4°F
6 P.M.	101.8°F
11-30 P.M.	100.4°F

No rigor. As the temperature had come down to normal, quinine injection was not given, but the usual mixture was continued.

23-2-1930. 7 A.M. 99.6°F

At about 10-30 A.M., the patient suddenly became unconscious. She was almost given up as dead. I was called in, and the following was her condition. Patient was unconscious, pupils slightly dilated, axillary temperature 100.2, pulse 98, breathing normal. Ammonia was allowed to be inhaled, and 5 minutes later patient recovered consciousness. However she could not move her left leg and left arm. There was also slight facial paralysis. Vision was blurred and speech was thick. Patient said she felt giddy. At 1 p.m., patient was semi comatose, and her condition was as follows:-temperature 101, pulse 104. legs extended and rigid, the arms semiflexed at the elbows and wrists, slight lock jaw, tongue drawn in, eyes partially open (patient could not close them well) pupils dilated more than before. Patient could not speak but can only answer queries by signs. Urine was drawn and was found to be normal. Patient would weep at sight of her mother, husband or grandmother. At 4 P.M., the patient was completely comatose. The temperature and pulse were still the same. Legs extended and rigid. Hands well flexed and rigid eyes kept open, pupils were

dilated, conjunctiva insensitive to touch. Breathing was hurried and shallow. Lockjaw complete. Fits came on at intervals of 15 or 20 minutes. Kernig's sign was slightly exaggerated. Just before becoming completely unconscious, I was told that there was maniacal weeping. No treatment was allowed by the relatives as they gave up all hopes. After 8 P.M., patient gradually recovered consciousness and the temperature was 99.4. When I was called in to see the patient at 10 p.m., I persuaded and succeeded in giving another intramuscular injection of 5 grains acid quin. hydrochloride and the usual quinine mixture without ergot.

24-2-30, 7 a.m. 100.4. 10-30 a.m. 100.2 when the patient again went to a comatose stage, and all the symptoms of the previous day, lockjaw, rigidity, fits and tremors (except the maniacal crying) repeated and lasted till 1 P.M. when patient regained her consciousness.

5-30 p.m. Temperature was 101 and 4 gr. of quinine were given intramuscularly in addition to the usual mixture.

25-2-1930. 7 a.m. 98.6; 11-30 a.m. 98.6; 6 p.m. 98.2

No further injection was given, but the usual quinine mixture was continued and the patient made an uneventful recovery.

The symptoms and signs of the case suggested a host of diseases as hysteria epilepsy, eclampsia, uraemia, typhoid fever, cerebrospinal meningitis, cerebral malaria, tetanus, ergotism, pyaemia, hemiplegia and puerperal mania etc. But in a rural area where one can not afford to have all the up-to-date facilities for arriving at correct conclusions, diagnosis by treatment has to be depended upon. So the fact that all signs and symptoms subsided and the patient was completely cured after the administration of quinine intramuscularly made me to put down this case as malaria of cerebral type. The absence of any definite history such as of

hysteria, epilepsy, absence of albumen in urine, rigours before rise in temperature and a normal temperature after the rise were other factors that weighed with me to come to the above conclusion.

S. RAMASUBBU, L. M. & S.,
Rural Medical Practitioner, Viraganur.

Rat bite Fever

Treated successfully with Arsenic and Mercury Specific (A. F. D.)

(Sodium Dimethylarsenate 2 gms. and Mercury Iodide 0.005 gr.)

A young boy aged seventeen had a rat bite in two places on the planter surface of the foot. One wound was on the heel while the other was at the distal end of first metatarsal bone. Both wounds were painful so much so that the boy could walk with difficulty. Wounds were showing early signs of inflammation. The boy saw me two days after he had the bites. That day belladonna and ichthyol was applied and to the wounds I gave him an injection of the Arsenic and Mercury Specific A. F. D. I was informed by the patient the following morning that his pain was very much relieved and he had sound sleep. No further injection or any local application was required. The boy began walking on the third day morning that is after 36 hours as if he had no bite.

I have therefore to suggest that this Arsenic and Mercury Specific A.F.D. may be tried for Rat-Bite fever with as good or better results than other more costly preparations such as Neo-Salvarsan etc.,

P. V. DHEBRI M. B. B. S.

DR. S. R. BHAT,
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MEDICAL INSPECTION OF SCHOOLS

Sir,

Kindly allow me the hospitality of your journal for a few remarks of mine occasioned by your comments in the News and Comments column of your magazine, regarding the recent G. O. defining the qualifications of Medical Officers for appointment as Medical Inspectors of Schools. I confine my remarks to a single statement of yours which I quote here verbatim:—

"Medical Inspection of Schools requires special training, and to undergo that training L.M.Ps. are as fit as graduates. If it is the intention of the Government, to provide Medical Inspection of all School going population, the necessity and importance of which were pointed out in one of the editorials of this issue, it is absolutely necessary that all medical men L.M.Ps, medical graduates, including B.S. Sc's should be given a few months training in medical inspection and employed."

If you only and kindly take the trouble of just going through the syllabus for the B.S.Sc. degree course or the course for Second Class Health Officers as given in the Madras Medical College, you will find that the candidates are given a special course of lectures and demonstrations on all the aspects of medical inspection of school children (including the ideals, objects, methods of inspection, as well as the methods of compilation and evaluation of morbidity statistics and general outlines of preventive measures that are usually adopted to improve the mental, physical and even moral well-being of the school children.) They are also given courses of instruction and demonstrations in sanitary inspection of school premises, boarding schools, and hostels in all its aspects including sanitation, conservancy, orientation selection of suitable site, as well as the adequacy of accommodation, ventilation, water supply etc., of the premises, cove-

ring a period of about six months in addition to a three months course in minor sanitary engineering.

I think you will agree with me that the course of training as outlined above for the B. S. Sc. degree so far as medical inspection is concerned amply qualifies a medical graduate to conduct medical inspection of schools, and places him, in what is certainly a much better position to hold the appointment of Medical Inspector than a medical graduate or an L.M.P. who has not had the training and that your statements that the B. S. Scs as such are not adequately qualified to be medical inspectors without special additional training—the nature of which you have not cared to even briefly define and that the Government are not fair in recommending their appointment as medical inspectors in preference to medical graduates or L.M.Ps. without a Public Health qualification, requires revision.

Permit me also to point out that as medical inspection of schools implies not only medical inspection of the pupils concerned but also the sanitary inspection of the school premises its surroundings and other factors affecting the sanitation of both these; it stands to reason that a medical man with a Public health qualification, is to be chosen for the purpose of medical inspection of schools in preference to other medical men who do not have such a qualification. It may interest you to know if you are not aware of it already that in western countries and America, it is quite usual that medical inspectors of schools are recruited from among candidates who are medical graduates or diplomates having a Public health qualification, in addition, to serve in a special service if necessary called the medical inspection service distinct from the regular public health service of the country, there being practically no interchange of officers from one service to the other. You will see therefore that there is nothing unfair or unusual in the recent

G. O. recommending the preference of B.S.Sc.s for appointment as medical inspectors of schools, to medical graduates or L.M. Ps. who do not possess a similar qualification.

Conjeevaram } A. Chandra Mowli L.M.S.,
23—5—30. } B.S.Sc.,
Hon. Assistant Surgeon and
Medical Inspector of Municipal
Schools, Conjeevaram.

[Editor: By stating that all persons engaged in the duty of medical inspection should be given a few months training, we never meant anything disparaging either to our B.S. Scs. or others. In order to bring the medical inspection to a uniform standard, so that the results and reports of the inspection may become fit for comparison, we recommended the training, as the Government itself did not seem to be satisfied with the training given in the course of study to Health Officers both for first class and second class as it had stated that only graduates are fit to undertake the inspection though 2nd class Health Officers are recruited mainly from among the L.M. & S. We are not much impressed with these so-called special courses and in the Editorial on Medical Inspection we stated that if necessary, training might be given. Examination mania and making invidious and irritating distinctions between different examinations are the characteristics of Indian administration. In the United Kingdom, even for Medical Officers of Health, special qualification in Public Health is not insisted. At any rate it was so sometime ago and we are open to correction. But as regards Medical Inspection, neither the chief Medical Officer of the Board of Education in England, Sir George Newman, nor none of the 8 Medical Officers seem to possess any Public Health qualification as seen from the report of the Chief Medical Officer. For the correct performance of the duties of Medical Inspection of schools, special knowledge in psychology including child psychology, dietetics including Vitamins and Endocrinology is required, and we believe that none of these subjects are taught in the Health Officer's course].

INJUSTICE.

Sir,

In your journal, I have been perusing several letters written by medical practitioners especially those in charge of rural dispensaries regarding their grievances in claiming travelling allowances when attending courts. The letters of Dr. M. G. Subramania Iyer of Devakotah and Dr. S. Ramasubbu. L.M. & S., medical practitioner in charge of rural dispensary,

Viragnur, show that they claimed four annas per mile and a daily batta of Rs. 1¼. This was denied to them but they were given a batta of annas two per mile and annas eight—being classed as a second class non-official.

The 2nd part of the G. O. No. Mis. P. H. 811 dated 27th April 1927 states "If the rates paid to them are in their opinion insufficient, they should be advised not to take up cases involving their attendance at Courts, unless absolutely necessary".

There will be the least trouble to get T. A. from private parties in attending courts on their behalf. Magistrates will be quite willing to recover from the parties the medical practitioners' full T. A. Bill even if it is a maximum one. The magistrates are unable to decide our T.A. when the medical practitioners attend courts in Government cases. It is only in Government cases that we don't get even the minimum expenditure in attending courts. Is it the desire of the Government according to their G. O. not to take up government cases involving our attendance in Courts? In the year 1928, I had to render emergency professional service when a man who was shot through his thigh was brought to me. I removed the bullet from his thigh and gave the necessary first aid and sent him to the Headquarters hospital. Summons was received from the Sessions Court to give evidence in this case. I was classified as a 3rd class non-official and was given mere bus fare to attend a court which is 50 miles away from my place. I protested against this and explained to the Sessions Judge and he passed 2 annas per mile as a favour.

Last year I attended another Court as a witness in a Government case and the Magistrate gave me mere bus fare. I protested against this and showed the decision of the Sessions Judge in a previous case but the Magistrate refused to pay me more than my bus fare. I appealed to the Sub-Divi-

sional Magistrate but he only confirmed the Lower Court's decision.

At least Dr. M.G. Subramania Iyer and Dr. Ramasubbu were lucky to get 2 annas per mile; even that is denied to me. Last month three people were brought to me in a precarious condition for treatment as a result of arsenic poison. Two survived and one died. This is a Government case which is to go to the Sessions Court. As a medical witness, I will be summoned by the Court. Am I to refuse the summons because I knew in my opinion, the T.A. I would get will not be half of my expenditure, or will my fellow professional brethren think that I did an unwise thing in treating those patients because I knew that it will involve me in attending a Court, and the G.O. distinctly says not to accept cases when we know that the rates paid will be a miserably low sum?

Being non-officials who depend more upon our practice, will not the Government think this is a great injustice done to us unless they frame special rules for our T.A. in attending Courts.

I appeal to our representatives in the Medical Council to take up our cause regarding our travelling allowances in attending Courts on behalf of Government and move the Government to redress this legitimate grievance.

VENKATAGIRI KOTA } DEVADOSS S. JOHN
RURAL DISPENSARY } L.M.P.
Chittoor District }
26th May 1930. }
Registere'd Medical
Practitioner.

[Ed. Comments on the subject will appear in the next issue.]

DON'T BE MISLED

Somebody may call on you and tell you that so and so is cheaper. A terrible temptation! And how easily we fall! How can they be made so much cheaper? By mixing in something else? In India we have seen tins labelled TURPENTINE (75% reduced). They contained 25% Turpentine and 75% light Kerosene Oil. And we have seen tins labelled TURPENTINE (Substitute). They contained only Paraffin Distillate. Substances may

be offered under fancy names as "equivalent to 914", or "equivalent to Sulfarsenol" without stating in what manner it is "equivalent" and without even stating the composition of the product or mixture.

There is only one way to deal with the difficulty. Get at the genuine product and stick to it. You can't afford to take risks.

A QUESTION OF BIGGER DOSES OR BETTER DOSES

We are quite accustomed to the idea of giving larger doses of Calomel than we dare give of Perchloride of Mercury. When Calomel is given by mouth absorption is difficult. We often realise that Quinine Bihydrochloride, being very soluble, gives a more rapid effect and is a more active remedy than insoluble quinine compound like quinine Salicylate or Enquinine. But we often forget that for the same reasons if we give an injection of an insoluble bismuth we must give a bigger dose than would be required if we gave an injection of a soluble bismuth like Benzo-Bismuth. To get an absorption of 8 or 10 centigrammes of bismuth metal per week from insoluble forms you may require to inject 20 centigrammes, of metal per week. Slow, prolonged effect is what is desired, but we must decide whether we shall inject twice as much metal as we require and even then not know exactly how much is circulating and risk the presence of toxic quantities in the muscles, or give the correct quantity of a soluble salt. If we use Benzo-Bismuth we can give an injection twice a week, or in cases weighing 11 stones or more say three times a week. This gives slow continuous effect with a known absorption and no danger of deposits. Of course it is not often that deposits of bismuth amounting to 40 or 50 centigrammes of metal suddenly inflame and produce dangerous symptoms by absorption, but it has been known that it does at times and why take the risk.

THE DANGERS WE RUN.

A genuine product, if it proves good, is bound to collect its quota of imitations.

Sulfarsenol is like that. Sulfarsenol has proved itself the best and most convenient remedy not only for treating syphilis, but for gonorrheal complications and other troubles besides. Some may use a different chemical process to produce a somewhat similar chemical compound, and then claim "chemical identity." Until physiological identity has been established, until parallel curative efficacy has been proved, no risks should be taken with the health of our patients.

Others may pack a mixture of this and that, give it a name, conceal the exact composition and sell it at a cheap price. Such a mixture may contain 25% 914, 50% glucose and 25% levulose, (who knows) and still be able to show some alleviation of symptoms on administration. If only the injection is free from pain, a doctor may use such a composition for years, before a patient may be found bold enough to come back and say "Doctor those injections were no good. The benefit only lasted three months."

Acknowledgement

Lt. Col. Bradfield, Chairman, Board of Studies in Medicine, Madras, has sent us an appeal for circulation to the medical profession, which he received from the Harvey Memorial Fund Committee, London. A memorial to William Harvey for rebuilding the fallen tower of Hampstead Church, Essex, where his mortal remains lie, has been started in London, and a subscription of over £1,000 has been collected towards £5,700 required to meet the estimated cost for rebuilding the tower which collapsed on 28th January 1882. It is needless for us to say anything about that great exponent of experimental method of biology and the founder of scientific medicine, whose name cannot be easily forgotten by the medical profession all throughout the world.

THE MEDICAL PRACTITIONER

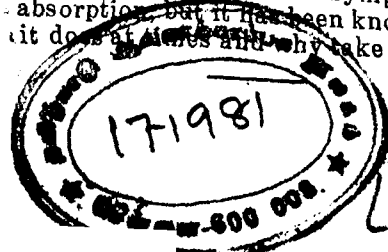
William Harvey rendered the greatest service to medicine not only in his own time but for all time, and we trust that the medical practitioners in

India will take it as a special privilege in having an opportunity to subscribe towards the memorial of one of the greatest scientists in the world.

Subscriptions may be sent to Lt. Col. E.W.C. Bradfield C.I.E. I.M.S.,
Chairman, Board of Studies in Medicine, General Hospital, Madras.

List of postings of Sub-Assistant Surgeons for the month of May 1930.

Name of Sub-Assistant Surgeon.	From	To
1. Dr. D. Narasimha Raju	Govt. Ophthalmic Hl. Madras	Govt. Hl. Bhimavaram.
2. " S. Krishna Rao	Govt. Hl. Bhimavaram	Govt. Hl. Chatrapur.
3. " Md. Auzum Sahib	Govt. Hl. Chatrapur	Govt. Ophthalmic Hl. Madras.
4. " V. Ramalinga Ayyar	on Leave	Govt. Hl. Dharmapuri.
5. " K. Thiagarajan	L. F. Hl. Mettupalayam	R. D. Govt. Hd. qr. Hl. Coimbatore & then Lawley Rd. Dy. do.
6. " S. Sengaliappan	Lawley Rd. Dy., Coimbatore	at the disposal of President, Dt. Bd. Coimbatore.
7. " V. V. Kannan Nair	L. F. Dy. Bunglowpudur	do. do.
8. " T. V. Ramanathan	Hd. qrs. Hl. Anantapur	L. F. Dy. Kalyandrug.
9. " G. Raghavayya	L. F. Dy. Kalyandrug	Police Hl. Anantapur.
10. " M. V. Ganesan	Police Hl. Anantapur	Govt. Hl. Kadiri.
11. " M. Venkatacharya	Tuberculosis Hl. Madras	c/o I. G. of Prisons.
12. " P. K. Gunasagaram	W. S. Jail, Bellary	Tuberculosis Hl. Madras.
13. " C. L. Lakshmana Rao	L. F. Dy. Indurpet	Govt. Hd. qrs. Hl. Ellore.
14. " C. S. Venkatasubramani	L. F. Dy. Kaveripatnam	c/o I. G. Prisons.
15. " C. S. Ramachandran	Central Jail, Salem	do. do.
16. " E. S. Kupusami Ayyar	Munl. Dy. Kurnool	c/o President, Dt. Bd. Trichinopoly.
17. " P. Somasundaram Pillai	L. F. Dy. Manapparai	General Hl. Madras.
18. " N. Isaac	General Hl. Madras	c/o President, Dt. Bd. Madura.
19. " Krishnayya	R. D. Office of S. G. Madras	Port and Marine Dy. Madras.
20. " J. T. Moses	Forest College Camp. Duty, Coonoor	Govt. Hd. qrs. Hl. Madura.
21. " S. V. Siva Rao	under orders for Hd. qrs. Hl. Kurnool.	Govt. Hd. qrs. Hl. Vellore.
22. " M. Venkatasubba Rao	Govt. Hd. qrs. Hl. Nellore	c/o Dt. Board President, Nellore.
23. " T. P. Balaji Rao	Govt. Hd. qrs. Hl. Madura	Plague Inoculation Duty, Periakulam and then c/o President Dt. Bd. Madura.
24. " P. Bhima Rao	c/o President Dt. Bd. Bellary	L. F. Dy. Kurugodu.
25. " N. Murthy Sarma	L. F. Dy. Kurugodu	L. F. Dy. Alur (Bellary).
26. " S. V. Sitaran Rao	L. F. Dy. Alur	c/o President Dst. Bd. Bellary.
27. " J. Suryaprakasa Rao	Govt. Hd. qrs. Hl. Chinglepet	c/o Chairman Munl. Council, Conjeevaram
28. " S. Natarajan	Govt. Dy. Dabugam (Viag.)	P. W. D. Dy. Thekkadi (Madura.)
29. " B. S. Sahasranaman	P. W. D. Dy. Thekkadi	c/o Civil Surgeon Vizagpatam.
30. " V. Kameswara Rao.	from leave	R. D. Govt. Hd. qrs. Hl. Ellore.
31. " A. N. Subbiah	L. F. Dy. Darsi (Nellore)	c/o President, Dst. Bd. Tanjore.
32. " K. A. Subramanya Iyer	L. F. Dy. Melathur	Police Hl. Coimbatore.
33. " K. S. Thiagarajan	Police Hl. Coimbatore	Lawley Rd. Dy. Coimbatore.
34. " K. Thiagarajan	L. F. Hl. Mettupalayam	Hd. qrs. Hl. Coimbatore, and then Police Hl. Coimbatore.
35. " A. P. Srinivasa Rao	Govt. Hd. qrs. Hl. Nellore	c/o President, Dt. Bd., Nellore.
36. " M. M. Patro	King George Hl. Vizagptm.	L. F. Dy. Chodavaram
37. " M. Goparaju	Govt. Hl. Kadiri	c/o President, Dt. Bd. Vizagptm.

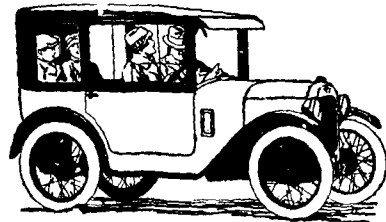


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