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The Medical Practitioner

A Monthly Medical Journal

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THE

Medical Practitioner

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VOL. IV.] FEBRUARY, 1933. [NO. 5

DECISIONS OF THE ALL INDIA CONFERENCES

The several addresses delivered at the Madras and Lucknow Conferences were the subject matter dealt with in these columns last month. Our work in this direction cannot be said to be complete unless the resolutions passed at these conferences are reviewed and commented upon. The value and utility of these gatherings are at first to be assessed on the decisions arrived at on subjects affecting the life and welfare of the medical profession as a whole. For reasons mentioned by us here last month the All India Medical Licentiates could not have a liberal programme about their grievances as a class or as members of the medical profession. The fact that valuable time of the Subjects Committee was spent in the manoeuvres of office hunting and that the Chairman, Reception Committee would not or could not press the programme of work decided upon by its Executive Committee did certainly hamper the interests of the Licentiates not only in this province but elsewhere also. The most important problem of medical relief in rural areas, a subject that materially affects the agricultural population in this country as well as the medical profession, chiefly the Licentiate section of it, has not found a place amongst the resolutions passed at both the conferences. The facts that in Madras, the Executive committee in charge of Reception did pass a resolution calling for special information regarding Rural Medical Relief Scheme and which was not made use of at the conference and that at Lucknow though the Presidential Address, was wholly devoted for a scheme on Rural Medical Relief, the subject was not discussed at that conference, make this omission most glaring. Another subject of some importance especially to those in service amongst the Licentiates and which was not taken notice of at the Licentiates' Conference was about the unsatisfactory treatment meted out to them in the Public Health Department in the United Provinces. We learn that the Public Health Branch of the U. P. Medical Licentiates' Association did write to the General Secretary of the All India Medical Licentiates' Association requesting him to place their grievances before the Conference. It is regretted that the General Secretary who hailed from U. P. and who ran the whole show at the Subjects Committee and later, omitted this item for discussion. Madras is ahead of other provinces in this country regarding the scheme of Honorary Medical Relief. One or two deputations waited on the Surgeon-General, as in the scheme now chalked out by the Government the Licentiates were treated in step-motherly affection. The Government have appointed a Committee a second time to go through the Scheme. Any decision arrived at the All-India gathering over which the Surgeon-General himself presided and which was opened by the Chief Minister in charge of Medical Portfolio, would have had very good effect if resolutions were passed on this subject at the Conference. This omission is likely

to be felt by the Licentiates of Madras Presidency.

The affairs at Lucknow seem to be more satisfactory though it has to be said as referred to above that the omission of the discussion of Major Naidu's scheme for Rural Medical Relief, ought to have taken a prominent place amongst the topics that were discussed. Excepting this omission the resolutions passed at the Lucknow Conference traverse a large field of the grievances of the medical profession.

In spite of the omissions, it is noteworthy to find that both the Coferences have passed some resolutions in common on subjects which are now engaging the attention of the Government. The first and one of great importance,is the resolution about the Indian Medical Council Bill which has since been introduced in the Legislative Assembly in spite of the protests from all sections of the profession. Both the Conferences have appointed Committes to watch the action of the Government. We trust that the members of these committees would acquit themselves worthy of the confidence reposed in them and that the Indian Medical Association who have been taking very keen interest in this and other matters concerning the profession, would not forget the request sent to them by the Madras Conference, that in case the Bill is passed without necessary amendments demanded by the profession that the Indian Medical Association should issue a mandate to the profession in India not to seek registration in the All-India Register. Five more resolutions were passed by both the Conferences on identical subjects, the decisions arrived at on them being of the same identical nature. The first of these series was regarding the Medical Education of the Licentiates about which there was unanimity at both places that it should extend to five years in all provinces in India and the two gatherings demanded that the teachers employed in Medical Schools should be of higher order than of those that are now usually employed by the Goverments of various provinces. The Lucknow Conference went a step further and that rightly and demanded that the entrance preliminary qualification for ent[illegible] Medical Schools should be the Intermediate St[illegible]d (with Science Optional). Major-G[illegible]rawson, the Surgeon-General with [illegible]vernment of Madras would be very much pleased that the ideas expressed by him in the Presidential Address at Madras regarding preliminary educational qualification and also selection of competent teachers to medical schools found support in Lucknow the place of his past activities, though in Madras not a word was expressed regarding the preliminary qualification. We also wish Surgeon-General Sprawson knows at least now that the grievance about the unsuitability of the teachers in the Medical Schools, had been noted by the profession for the past several years. It is hoped that the good example, now followed by him in Madras in recommending teachers of special qualifications to the Medical Schools will be copied by others in his position in other provinces as well. The second resolution was with regard to facilities that should be afforded to the Licentiates for qualifying themselves to University Degrees. Our readers might remember that soon after The Medical Practitioner came into existence, we criticised in strong terms about the callousness of the Indian leaders at the Universities in not affording opportunities to the Licentiates to qualify themselves for the University degrees, though such concession was allowed to them in Great Britain ever since the Licentiates existed. It was a happy coincidence that within a few months after, the Madras University passed the Regulation admitting Licentiates to qualify themselves for M. B. B. S. degree. This subject was discussed in several aspects in various issues of The Medical Practitioner which being read in all provinces in India, had evidently raised hopes that similar concession for the Licentiates could be got from other Universities in India. There are many University veterans as members of the Indian Medical Association and now that the All India Conference held under the auspices of this Association has passed the resolution on this subject there cannot be any difficulty in the way of the Licentiates to realise their hope at other University centres. But we hope that the example of Madras in demanding a preliminary qualification equivalent to Intermediate or Senior Cambridge standard would not be followed. The four years medical course undergone by the Licentiates in Medical Schools should be considered sufficient to make for the preliminary qualification demanded in

Madras. We do trust that the University comrades of the Licentiates in the Indian Medical Association, will show their sincerity of purpose by using their influence at the various Universities instead of approaching the various governments to appoint committees for the purpose of this scheme. The Licentiates are helpless having no tickets to get into the University halls yet they have appointed a committee of their own members to formulate and publish a scheme. It is no secret that the affairs of the Indian Medical Association are entirely controlled by the leaders in Calcutta and it is a strange irony that at the Lucknow Conference the Indian Medical Association depended upon the Government more than themselves. The third resolution in the series was in connection with admission of practitioners of all grades to the Diploma in Public Health to be granted by the All India Institute of Hygiene which till recently was part of Tropical School of Medicine in Calcutta and all practitioners without any distinction were eligible for the D. T. M. and L. T. M. diplomas which were granted at the Tropical School. It has now a a seperate life under a different head, independent of the controlling authority of the Tropical School and the Calcutta University would in future grant a Diploma in Public Health to such of those who undergo training at the Institute ; so to say this All India Institution has been affiliated to the Calcutta University for the purpose of granting Public Health diplomas. The Licentiates not being graduates in Medicine, it is apprehended that they are not likely to get the benefit of the special courses at the Hygiene Institute which was their privilege to enjoy so far. Apart from depriving the Licentiates the benefit of training in Public Health, it will be certainly a retrograde step not worthy of an All India Institute that it should put itself in a subordinate position to be under the guidance of one provincial University. We are told that the Director of the Hygiene Institute is in favour of admission of the Licentiates and Major-General Megaw, the Director-General of Medical Services, who is the final authority in this matter cannot have any objection as he would not undo what he did for the Licentiates when he was the Director of the Tropical School in admitting them for the L. T. M. and D. T. M. diplomas. Protest against the existing procedure adopted by the Government in taking a second opinion on medical certificates granted by private practitioners was the fourth resolution of common interest to both the Conferences. The Licentiates wished that Medical Ethics should not be violated by this procedure but at Lucknow the conference decided that members of independent medical profession and the superior officers of the Government should be equally treated in this matter. It was said in the resolution that the Bengal Council of Medical Registration had passed a resolution to that effect. We might inform our readers that a resolution had also been passed at the Madras Medical Council recommending to the government that all practitioners should be treated alike in the matter of issuing medical certificates. If other medical councils do the same the Government cannot but yield, at least to moral pressure. Differential treatment meted out to the several grades of the members of the profession with regard to insurance certificates was the last in the series. Both the conferences passed pious resolutions asking the companies not to do so. This can never have the desired effect. There are at present a pretty large number of indigenous companies in India and if these companies are really desirous to maintain a high standard with regard to the insurance certificates, they may as well start a College either in Bombay or in Calcutta to impart special knowledge in insurance work admitting to this college all registered practitioners and appoint only such medical men who stand the test of an examination by this college. The present policy of the insurance companies to value qualifications more than merit and experience, is detrimental to their interests much more to those of the profession. Even in this respect the Indian Medical Association may as well take a lead and even start a college at Calcutta with the co-operation of Indian companies and show an example to the rest of the country.

In addition to the subjects of common interest to both the conferences each passed other resolutions and amongst these are found some regarding the service grievances of the Licentiates. They wish that the subordinate cadre in the medical department should be exclusively reserved for the Licentiates and with another breath demand

that the Licentiates who got higher qualifications, Indian or Foreign should be automatically raised to gazetted rank and made Assistant Surgeons and if there be no vacancy in the provincial cadre they should be appointed as supernumerary Assistant Surgeons. There is a serious conflict of principle involved in these resolutions. Those who were responsible to table them must have minded convenience more than the real interest of the Licentiates as a class. The Licentiates have a real grievance if the Sub-Assistant Surgeon cadre is filled in by medical men from outside the Licentiates as long as the Government run the medical schools which were primarily intended to train this class. The appeal of the Licentiates to promote such of them of recognised merit to the grade of Assistant Surgeon, is as modest as it is legitimate, but to give preference to the Licentiates who after entering service got higher qualifications is certainly unjust. We have been agitating in these columns against the policy of Madras Government in superseding senior Assistant surgeons by juniors because of their additional qualifications got after entrance to service. Such a policy was not being followed in any other department of the Government, seniority and merit alone counting for promotion. The Madras Government have since realised their mistake and put a stop to their policy which they adopted only in the medical department. We wish the Licentiates agitate to get themselves recognised as such. They should request the Government that after certain fixed period of service as Sub-Assistant Surgeons they should be automatically lifted to the higher cadre as is the case in other branches of Government service. It is only favoured few who could get study leave and get additional qualifications. There is already enough heart-burning amongst the Sub-Assistant Surgeons in service regarding favourtism in the granting of study leave.

The resolutions passed at Lucknow were naturally of varied interests to the profession and deserve special notice. We have been discussing in season and out of season the urgent necessity of bringing about solidarity in the profession first before aspiring for the loaves and fishes of office and we are glad we have been able to see the dawn of this wisdom at Lucknow though the taste for Government service still lurks behind. We wish those who guide the destinies of the Indian Medical Association read that portion of the Address of Major-General Sprawson which he read as the President of the Licentiates' Conference in Madras. He said:—

"I think the chief drawback from which the Licentiates now suffer is that from which the whole medical profession in India suffers that the profession is not united, but is divided into separate classes, whose interests are not always identical. The medical profession in India therefore cannot always speak with one voice and it loses thereby some of the authority and influence which should belong to it."

What is uttered by the Surgeon-General of Madras is actually what the Madras and other Governments feel about the medical profession in India. This is why the voice of the profession has been too feeble. The Surgeon-General of Madras has suggested the remedy or rather warned the profession first to be united before they approach the Government. If once we do away with the compartments in the profession there will be no need for the profession to bend their knees in the way they have been doing. There is a momentous opportunity before the profession to show to the Government their strength and determination. The Indian Medical Council Bill has drawn the profession much nearer than before and if the Bill is passed in the way it has been introduced, the profession should gird up their loins and fight out the Government. This does not require from them much sacrifice in physical labour or monetary expenditure. They should in a body boycott the Indian Medical Council and the Register to be published by them. Asking the Government for representation of the independent medical profession here and there in the existing medical institutions under the Government, is certainly a cry in wilderness. The cry for encouraging the Indian manufacturers or the indigenous drugs is as useless a cry. The past activities and experience of the Indian National Congress should not be forgotten by the members of the profession. Our leaders have been crying hoarse passing resolutions year after year but the Government continued to be as adamant. Now the demand is not the begging for reforms but for a change in the constitution of the Government and if the long expected change comes about which is sure to come the reforms follow as a matter of course. The sequence of events cannot be otherwise in the

medical profession. The resolutions passed at Lucknow asking the members of the profession to seek election in the Assembly or Local Councils, Municipalities and other Local Bodies are worthy of the consideration of the profession so also is the resolution passed for the purpose of starting an economic organisation to prevent the exploitation and to safeguard and promote economic status and interests of the profession. In the meanwhile our political leaders should be well apprised of the needs of the medical profession to meet which, necessary changes will have to be brought about in the future constitution.

Original Articles.

*ECZEMA.

BY

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Definition: Eczema literally means—an Eruption Root meaning "to boil over" or "burst out". Eczema has been defined as "a cutaneous response, often defensive, to unknown toxin, intrinsic in origin, circulating in, or being eliminated by, local areas of the skin." This will exclude dermatitis due to plant origin (dermatitis venenata), drug eruptions (dermatitis medicamentosa), dermatitis due to physical agencies as erythema solare, erythemal igne, etc., radiation dermatitis from radium, X-ray, U. V. L., etc., and the large and ever increasing group of trade dermatitis in connection with arts and industries. This demarcation is quite essential as dermatitis has a known cause, and the removal of it or the patient from such influences will bring about a speedy cure of the skin condition.

Aetiology: This may be conveniently considered under the following headings: (1) Local structural peculiarities of the skin, (2) general predisposing conditions. In the first catagory may be mentioned. (*a*) ICTHYOSIS, and a milder condition known as Xerodermia are potent causes in the production of eczema. As the skin in these conditions is lacking in one of the most essential constituents, namely the grease from the sebaceous glands, it becomes harsh and easily fissured. Skin is rendered sensitive to cold and damp and cold winds. (*b*) EXCESSIVE SWEATING is another cause. Hands, feet and flexures suffer most. The acrid product arising from the decomposition of sweat, mechanical maceration of the epidermis, and infection by cocci from the surface of the skin may easily predispose these localised areas for eczematous process. It is worthy of note that in dry skin, the extensor surfaces are chiefly affected and the flexures in hyperidrotic skin. (*c*) VENOUS CONGESTION AND LYMPH STASIS: Varicose eczema of the legs is a classical example. In India, elephantoid condition of legs and sometimes hands and forearms through fibrosis of lymph glands by microfilaria and consequent lymph stasis in the area drained, is another familiar example.

Under the general pre-disposing causes may be mentioned: (*a*) AGE AND SEX: Eczema is common in both extremes of life. Perhaps in the aged, atrophy and dryness strongly predispose. Male infants suffer more than female. (*b*) HEREDITY: no doubt plays a part. Eczema runs in certain families as asthma, diabetes, rheumatism, etc. (*c*) AUTO-INTOXICATION: In some cases at least absorption of toxins from the alimentary canal is a probable cause. It is not uncommon to find constipation in eczematous patients; its presence is further demonstrable by the finding of indican and aromatic sulphate in urine. (d) FOOD: During the process of digestion, foods are chemically split into simpler products by enzymatic action of digestive fluids, and then further transformed by the metabolic activities of the intestinal bacteria. It seems reasonable to presume that the small quantity of toxin set free in the alimentary canal, in a healthy individual, is easily detoxicated by the liver. When putrifactive and fermentative processes are high, and the liver is also deranged, amino-acids and bacterial decomposition products get into general circulation and produce eczema in an allergic individual. Burgess, as a result of extensive experimentation, is of opinion that

* A Lecture delivered under the auspices of the University Extension Board on 8-2-33 at the Medical College, Madras.

the vast majority of positive intradermal reaction was given by toxic metabolic end-products arising from bacterial action on food products, as cadaverine, cadaverine hydrochloride, scatol, histamine, tyramine, putrescine hydrochloride, etc.; a few were caused by amino-acids occurring in the normal process of digestion. The problem of food with regard to eczema is a complicated one. Persons can partake of such foods as oyster, crabs, mushrooms, pork, etc. without any discomfort, but these very same persons, at a different time, may be the subjects of urticaria, eczema, etc. This is explained by assuming that the particular food has undergone rapid changes and deterioration producing toxins. Again, a few persons are sensitive to such harmless articles as cheese, oatmeal, eggs, etc. and some infants react unfavourably to milk (the kind that is rich in cream). This kind of sensitiveness or unfavourable reaction is designated as anaphylaxis or hypersensitiveness, and the altered reactivity of the person is known as "Allergy." Anaphylaxis is not limited to foods, as foreign proteins, sera, drugs, etc. may also produce the identical phenomena. Bloch adduced evidence to show that allergy is an antigen-anti-body phenomenon, wherein a certain group of cells of the living organisms react in a special manner when brought in contact with foreign substances as animal, vegetable and mineral; and ingested drugs—antigens. When antigen comes in contact with its specific cellular fixed antibody, a disturbance of cellular life takes place resulting in an inflammatory reaction. The nature of cutaneous reaction to drugs is still undecided. While desensitization can be effected in cases of anaphylaxis to foreign proteins, hypersensitiveness to drugs is a stable condition and cannot be overcome by the injection of small amounts of the sensitizing substance. (e) FOCAL SEPSIS: Septic infections are met with in the teeth, tonsils, accessory sinuses, gall-bladder, appendix and genito-urinary tract. In certain cases of eczema, removal of septic teeth or tonsils has followed by the disappearance of the lesions; but this happy result is not the common experience. It cannot also be vouched that the removal of a diseased appendix or gall-bladder will cure an obstinate ezcema. Colon irrigation and implantation of Bacillus Acidophilus per rectum have shown a certain measure of success while vaccines made from cases in which a copious flora has been reported on bacteriological examination of the stools gave very little encouragement. (f) ENDOCRINE DYSFUNCTION: Hypothyroidic states predispose the skin to eczema. (g) NERVOUS INFLUENCES: Cervical sympathetic changes have been occasionally reported, but not a sufficient data to base conclusions. Worry, shock and strain do certainly aggravate and keep up a pre-existing condition.

Pathology: In essential details, the pathology of eczema is much the same as that of dermatitis. It is essentially a catarrhal inflammation. All the classical signs of inflammation are present. As the process is superficial and there is free scope for expansion, the subjective sensation of pain is replaced by burning, itching or general discomfort. The initial stage of hyperaemia of the papillary tufts, is rapidly followed by a serous exudation into the mucous layer (the rete). The intercellular fibrillæ are burst and vesicles form in the deeper layers of the rete, and, by gradual growth from below, reach the surface. The individual cells of the rete are also oedematous. The whole process is designated as Spongiosis. The vesicles by confluence may form bullæ. When the stratum corneum is sufficiently stretched, vesicles burst, and exudation takes place on the free surface—weeping. In eczema, the vesicles are amicrobi as shown by Willan and later by both the Foxes. When pyogenic infection takes place, leuocytic infiltration speedily sets in, the contents of the vesicles become turbid through pus formation and the condition is termed "Impetiginization". The serous exudation makes the cells of the mucous layer oedematous, and the proper evolution of the cells of the corneous layer prevented. The cells of the corneous layer are imperfectly keratinised and retain their nuclei. The presence of moisture makes the individual cells cohere and desquamate in the form of scales instead of as normally cell by cell and insensibly. This process is described as "para-keratosis". In chronic cases lichenification takes place through hyperplasia of the prickle-cell layer and inter papillary prolongations.

Symptoms: Subjective symptoms of itching, burning, a sensation of heat and discomfort are usually present severally. These vary a good deal with regard to

intensity, in different patients at different times, some may not experience anything beyond a slight discomfort, while others may complain of itching, burning, etc. much out of proportion to the lesion. The patient may be made sleepless by intolerable itching. As a general rule, constitutional symptoms are absent; in acute and extensive cases, slight fever attended by chillness may mark the onset. Whatever the type of the inflammatory process—acute, sub-acute or chronic—the disease is long continued and persistent, and, in most cases, shows little tendency to disappear. Though a seasonal influence is recognised, no rigid rules can be laid down. Certain types are marked out by special characteristics. It will add a good deal to clarity to consider them under these headings. The division is based on primary elementary lesions and also on special clinical features. Erythematous, Papular, Vesicular, and Pustular varieties are amongst the primary elementary lesions. Eczema rubra, Eczema madidans, Eczema fissum, Eczema sclerosum and Eczema verrucosum are classifications depending upon clinical features. There may be a combination of any two or three of the above.

ERYTHEMATOUS ECZEMA (Eczema erythematosum): This is commonly seen on the face, though any part may be affected. It may start as a single hyperaemic area, or several areas may appear simultaneously; they may later coalesce. The size of the areas varies and the borders are irregular in outline and ill-defined. The part is swollen and oedematous. The reddening of the area deepens and in some places scales or vesicles may appear. A serous exudation may take place spontaneously; it usually results from rubbing and scratching. This type may retrogress and heal or may persist and become modified into one of the other types, as Eczema squamosum, or rubrum. Subjective sensations of itching and burning may be present in varying degree. PAPULAR ECZEMA (Eczema papulosum): Here papules, varying in size, from a pin-point to a pin-head may be found discrete and irregularly scattered about, or may be in clusters. Here and there vesicles and pustules may be found. This type of lesion is very common about the flexures, arms and legs. Itching is usually intense. Blood-inged crusts may form on the top of the papules through scratching and rubbing. This type may pass into squamosum or rubrum variety. This is always marked by chronicity. Sometimes the lesion may persist indefinitely. It may heal in one place and relapse in another. VESICULAR ECZEMA (Eczema Vesiculosum): Discrete or clustered vesicles appear over an inflammed and oedematous-looking area. The vesicles vary in size from a pin-point to a split pea. The vesicles rupture in the course of hours or days leaving a weeping surface (Eczema Madidans): if oozing is slight, it dries up into crust. The commonest site is the face and scalp of infants and in adults flexor surfaces, fingers and neck. The course is commonly chronic with a variable period as regards remission and exacerbation. This type usually results in Eczema rubrum. PUSTULAR ECZEMA (Eczema pustulosum or impetiginosum): Usually affects debilitated children and adults. Its common site is the scalp of children. This resembles the preceding type in all respects except that the clear vesicles are turbid through pus formation. SQUAMOUS ECZEMA (Eczema Squamosum): is a well recognised clinical variety arising from erythmatous or papular varieties. Its course is marked by great chronicity. Itching is variable; it is intense when the scales are adherent. The affected area is greatly infiltrated; if located over joints, movements produce painful fissures. ECZEMA RUBRUM: Commonly seen on the face and scalp of children and the legs of adults who are over forty years of age. It is characterised by a red, weeping, rawlooking surface with a varying amount of infiltration of the cutaneous tissues. There is usually a combination of weeping and crusting. Sometimes the oozing is so copious and persistent that crusts do not at all form (Eczema Madidans). Varicose veins may complicate the condition. This type shows no tendency to disappear spontaneously; is very resistant to treatment, and usually an end-result of vesicular or pustular eczema. FISSURED ECZEMA: (Eczema Fissum): As the name implies, the leading feature is fissuring and this type of lesion is commonly found over areas subjected to constant movements. There is a certain amount of inelasticity arising from infiltration. ECZEMA SCLEROSUM AND ECZEMA VERRUCOSUM are two rare clinical types which are very resistant to treatment. Common site are lower

third of legs, ankles and feet. There is infiltration and thickening of the affected area; the surface is rough and has a board-like rigidity to feel. In addition to the foregoing, this type has a distinct warty, verrucous or tuberculated appearance. INFANTILE ECZEMA calls for very little notice. It differs in no way from the adult one except that the tender tissues of the child show more of the inflammatory reaction. The face, scalp and napkin area are very commonly affected. The disease tends to a spontaneous cure after the age of six. Some authorities consider that milk rich in cream is an aetiological factor, while others attributed it to a high acidity in the tissues.

Diagnosis: Of no disease can it be truly said that the diagnosis is mainly by exclusion. In this protean disease with its polymorphism varying day after day, one should make an endeavour to exclude all diseases with known and clear-cut distribution. The large group of external irritants must be excluded by careful enquiry. The occupation of the individual, his hobbies, etc. should receive attention. Drug eruptions and exposure to dyes ruled out by careful interrogations. In a word, all dermatitises separated and the diagnosis of eczema established. The advantage of this procedure in treatment was insisted on in the introductory remarks. Erythematous type has to be differentiated from erysipelas and rosea. Constitutional symptoms, boardy infiltration with clear cut margins of the lesion, leucocytosis etc. will help us in erysipelas. Rosea is a chronic affection of skin; Seborrhoea, dilated venules in face, gastric or uterine disturbances, history of addiction to alcohol, tea or coffee can always be elicited. Papular type has to be distinguished from a good many skin lesions as papullar syphilide, erythema multiforme, prurigo, lichen planus, pityriasis rubra pilaris, etc. The last affection is a chronic skin disease characterised by branny scaling, redness and folicular papules. When the papules affect the back of hands, the diagnosis will not be in doubt. White scales of scalp with little tendency to reform on removal will also be helpful. Lichen planus is confined to flexors, papules are angulated and show milky streaks on top. The colour is a distinct lilac or purple on a slightly fair skin; appearance of papules in mucous membrane of mouth will clinch the diagnosis. Syphilide is hard, non-itching, erratic in distribution with no tendency to grouping. Wassermann or Khan reaction should be sought in all ambiguous cases. The Vesicular type will have to be differentiated from dermato-phytosis, dermatitis herpetiformis, drug eruptions, scabies etc. In Dermato-phytosis, Interdigital clefts (common 4th interspace) when spread beyond, it assumes ring form. Demonstration of fungus by culture and microscope. Pot. Iodide and Bromide eruption should also be taken into account. In Scabies, distribution, burrows and the demonstration of acarus scabiei will help in diagnosis. Dermatitis Herpetiformis is a rare chronic papulo-vesicular eruption with a tendency to grouping. The Pustular type has to be differentiated from sycosis, favus, impetigo, peduculosis, etc. Squamous eczema has to be differentiated from the following:—

Seborrhoeic Dermatitis, Common dandruff, etc. Psoriasis is recognised by silvery, micaceous or asbestos-like scales showing a reddish base with vascular points not bleeding and with proclivity to the extensor areas (usually over joints) and scalp. Chronicity, tendency to remission and relapses are special features in Psoriasis. Pityriasis Rosea is a rare affection, herald patch, fawn-coloured lesion, crinckled at centre showing separation into scales (collarrette scaling) are characteristics to be noted. Dermatitis exfoliativa is one of the erythrodermias characterised by extensive generalised erythema with scaling, itching, burning and great discomfort attendant with constitutional symptoms. In all cases of doubt, W. R. or Khan test should be carried out before final decision. Sometimes arsenical injections in xerodermic skin, react in a peculiar way resembling eczema in patches; hyperpigmentation and hyperkeratinization of hands and feet are not apparent in these cases.

Prognosis: This should be considered as a curable disease, *if properly treated.* Some chronic resistant cases may carry one over one or two years. The patient's general condition should be well-maintained. Every minute detail should be seen to by the Dermatologist in person. How often the removal of an external irritant which passed unnoticed, effected the cure of a long-standing case.

Treatment: One extreme view holds that eczema should not be treated for fear that the disease may be driven in; in this connection note the derivation of the word Eczema given above. The usual method of treatment is both by internal remedies and external applications. Simple, nutritious and easily assimilable diet should be aimed at. Bulkley advocated a diet of boiled rice, eaten slowly with butter, and bread and water. In widely spread and chronic cases, a vegetarian diet is an advantage. Alcohol should be interdicted in all cases, as it causes cutaneous vaso-dilatation. This may also be said of tea and coffee. Restriction of salt from diet has been reported to have given good result. Abstinance from acid fruits may be beneficial. All digestive disorders should be corrected and putrifaction and fermentation prevented. Rest in bed in extensive lesions, and when both legs are effcted should be insisted on. This stabilizes the circulation; and changes in the skin vascularity is maintained at one level. Internal remedies like arsenic, antimony, etc., have been discredited. Arsenic finds its use now in only a few types of chronic cases. Antimony is of value in acute and wide-spread cases. This is given in the form of Vin. Antimonale (M. 3 to 7) thrice a day. In persons with nervous debility, Quin. Sulph in tonic doses has a well-marked action. When the lesions show an urticarial reaction, calcium lactate could be given a trial. The skin being an excretory organ, purgatives may lighten its labours, by disposing of the gastro-intestinal toxaemia—a potent pre-disposing cause as already shown. Sulphates of magnesium and sodium, which are not at all absorbed may be chosen, and these two salts have another advantage, over other saline purgatives in that they combine with toxic materials in the gut and make them innocuous. Colonic lavage aims at the same result, i.e., ridding of toxins mechanically. Bulkley's diet referred to above leaves little residue and is bland; hence noxious material is reduced to a minimum. Implantation of Bacillus Acidophilus is a means of getting a speedy change in the intestinal flora.

In the very nature of things and in a disease which is protean in its manifestation as shown above, one cannot look forward for a specific and there is no specific. Each stage will require special form of treatment. Certain general principles for guidance may be indicated: (1) Removal of crust, (2) disinfection when pyogenic infection has taken place, (3) protection from external irritation, (4) Tropical remedial measures to suit the particular stage of the disease. In this connection one may be pardoned for quoting Veiel's dicta:—(a) More acute the inflammation, the milder the remedy. (b) Exercise great precaution in the use of strong remedies; experiment with small doses over limited area. (c) Persevere in the treatment till the last traces have vanished, if not, relapses are bound to occur. Crusts are removed by a boro-starch poultice and allowing it to remain from 12 to 24 hours. Starch should be well-cooked, till the granules are burst. And the quantity of boric acid need not be more than a level teaspoonful to four tablespoonfuls of starch powder. Poultice made from wheat flour is more tenacious than the one made from rice. Strips of linen soaked in olive or cocoanut oil and allowed to remain for the same period may also be used to remove crust. Thinly spread sticking plaster will also help us to attain the same end. In non-inflammatory cases, scrubbing with soap and warm water may be safely carried out. Care should be taken to remove all traces of soap. It may be noted in passing that water produces irritation of acutely inflammed parts; addition of a little starch to the water raises the specific gravity to the level of blood serum; less serous exudation takes place and hence less irritation. Disinfection is carried out in the best way by painting 2 to 3% solution of $AgNo_3$ on small areas. It also acts as an astringent at the same time in weeping cases. The same object may be attained, in addition to protection of the lesion, by the addition of 3 grains of Hydrargyri Oxidi Flavi or 5 grs. of Hydrargyri Ammoniata to an ounce of zinc paste (Lassar's paste minus the salycylic acid.) The following example will illustrate:—

Hydrargyri Oxidi Flavi grs. 3.
Zinci Oxidi ...
Pulveris Amyli
Adipis Lanæ Hydrosi
Vaselini each drachms 2.
Fiat Paste

For External use. Spread on strips of clean linen and apply over affected parts. Change twice or thrice. The old paste is

easily removed by means of cotton-wool swab dipped in oil. The swab is gently rubbed and the paste (or ointment) will stick to it and be removed. When there is reason to believe that disinfection is complete, the yellow oxide of mercury or the ammoniated mercury may be omitted from the paste. In the acute erythematous and papullar stages, soothing and cooling application should be used. Resort may be had to pure lotions with the addition of spirit or a combination of lotions and powders. The following is a good formula for the former:

Rx. Liquor Plumbi Subacetatis... 2 drs.
Spirit Vini rectificati ... 2 ozs.
Aquam Distillatum ad ... 10 ozs.
For loti.

The addition of spirit hastens evaporation and the cooling effect is intensified. The lotion should be mopped on freely and frequently to the part. The part may be covered with lint and the lotion allowed to drip keeping it continuously moist. For lotions combined with powders, none is so popular as Lotio Calaminæ. The following formulæ gives the proportion.

Rx.		or, Rx.	
Calaminae	2 drs.	Calaminae Preparatae	3 drs.
Zinc Oxide	1 dr.	Spt. Vini Rectificatus	2 ozs.
Glycerine	30 m.	Zinc oxide	2 drs.
Aquam Calcis ad	6 ozs.	Glycerine	1 oz.
Misce : Ft. Lotio		Aquae Rosae ad.	8 ozs.

Mop on to the affected part.

If the above measures are carried out properly, a slight pickening and reddening of the skin results. Tar in some form is also indicated. A drachm of liquor carbonis detergens may be added on to the zinc paste or a paint with a cleaner preparation, may be used.

TAR PAINT.

Rx.
Pices Carbonis 1 part
Benzol ... 2 parts
Acetone ... 7 parts.

The paint shown above is one of medium strength; it may be made stronger or weaker as desired. The paint is applied once daily, and it dries in about 5 minutes. There is no necessity for an external dressing over it. Any irritation that may arise should be carefully noted; if so, the paint is stopped for a time and zinc paste substituted. Weeping eczemas, of late, have been treated by painting with pure tar with good results. Tar from gas works, freed from leucol and soluable alkali, by repeated washing with cold water, is used without dilusion. The black treacly liquid is painted on as a thin coating which takes one to two hours to dry; it may, then if desired, be covered with talc powder on linen. The paint causes a smart burning sensation for 15-20 minutes, followed by a sense of comfort and freedom from itching. The paint need not be repeated for 2 or 3 days; if there is discharge, early removal is necessary. Freedom from pyogenic infection is the *sine qua non* of this treatment; if sepsis is present, this treatment should be delayed until disinfection could be satisfactorily insured. If it is desired to dilute the tar, lard should be used as vaseline and lanoline are unsuitable. It may also be incorporated with equal quantity of Casin ointment, which forms a varnish, easily drying, and less messy. Diluted tar does not produce such satisfactory results. Tar is contra-indicated in Erythymatous and papular stages. Warty and sclerosing types of eczema require prolonged treatment. Hebra's method is still the best. The affected part is ringed with vaseline and then scrubbed with a 20% or 50% solution of Potassium Hydroxide till the surface becomes covered with small due-drop-sized watery exudate. The process stopped, surface cleansed, and Hebra ointment, composed of equal parts of Emplastrum plumbi and vaseline, is applied on lint or plaster mall. If indurated and hornified, 15 to 30 grains of acid salicylic may be added to the ointment. Biersdrof series of salve-and plaster-mulls containing keratolytics may be used. Scrubbing the parts with soap and water daily will yield similar results at longer intervals. Itching may be relieved by a dusting powder recommended by Jackson :

Rx.
Camphorae ... ½ dr.
Zinc oxide ... 2 drs.
Pulveris Amyli ... 4 drs.

X-ray, W-ray and radium and U. V. L. have been used extensively in chronic cases during the last two decades. Time cannot be found to go into a lengthy discussion of the subject. Fractional and sub-fractional of an erythyma dose, in acute cases has yielded best results. Filtered and unfiltered radiation is being utilized. Acute and erythematous cases give better results with U.V.L.

Vaccine treatment has not given satisfactory results, as erythematous, papular and papulo-vesicular stages are amicrobic and as such vaccines are not indicated. When secondary coccal infection has taken place, an autogenous vaccine from the whole organisms grown and in the proportion in which they are found will yield better results. In an out-patient practice, one should resort to stock-vaccine. Injection of proteose isolated from urine was tried in a number of cases. I cannot speak with any enthusiasm from the results obtained. Non-specific protein therapy was tried in refractory cases. Over 60% of cases have given uniformly satisfactory results. 2½ to to 10 c. c. of steralized pooled milk were used as a routine, time interval being twice a week, unless the patient was weak and had reacted violently as shown by persistence of fever for more than a day, and other constitutional symptoms as malaise, headache, sleeplessness, etc. T.A.B. vaccine curative may be used starting from 20 millions increasing by 10 millions at each subsequent injections. Aolan, Collosal Manganese and Manganese Butyrate have been tried. I have obtained good results in scaling types by the intravenous injections of sodium thiosulphate, enesol, aurothysin, and solganol. I cannot say definitely how these substances act; the favourable clinical results are always apparent.

ENDOCRINOLOGY.

BY

Dr. M. S. KRISHNAMURTHI AYYAR,
M. B., & C. M.,

XXVII

APPLICATIONS AND POSSIBILITIES (*continued*)

Taken from Berman's Gland regulating personality).

VOCATIONAL EDUCATION.

It is difficult to avoid becoming merely enthusiastic upon the possibilities of the applications of the endocrines to the educational domain. Happiness for the average individual consists of a double success—success in his vocation and success in his sex life. A certain hue and cry has been raised in the last few years concerning the vast and overwhelming importance of sex in the happiness and even in the success of a man's every day life. And, no doubt, there is a relation. Sublimation plays its part in the explanation of vocational idiosyncrasies. The fact, however, that perfect success in sex may occur with absolute failure in the career, splits the problem for good into its realities; a physiologic aspect as well as a psychologic.

So, as school education will have to take serious account of the endocrine anomalies and possibilities, will the institution which selects and trains for a career—vocational misfits have aroused the ardour of efficiency experts. No science, in the sense of accurate examination, is possible in the matter of classification for vocation without the insight into the psychology of the candidate, that the analyses of his endocrine formula will provide. It will furnish a means of approach to the determination of how men and women are built and why they are built differently and no one can gainsay the tremendous advantages to the nation that will proceed to classify its population accordingly and know its strength and weakness in terms of the actual generators of success and failure. It has been observed that financiers of mark like great musicians, are specially pituitary types. Also that the financiers are voracious meat-eaters and the musicians are inordinately fond of sweets. Differences in the anterior and posterior predominances rightly account for this. That we are working here with

possibilities is proved by the fact that we can effect changes of tastes as well as of intellectual direction by appropriate feeding of various glandular extracts. Just as much, indeed, as we can influence sex susceptibility and the reaction to sex stimulation by the artificial introduction from without of the proper hormones.

FATIGUE AND INDUSTRY.

In Industry, business and profession the endocrinologist will come more and more to be called as consultant. Labour unions, as well as the large employers of labour have given much thought to the problem of fatigue. Just what fatigue is, why different individuals tire at different rates, why some are constructed for monotonous routine, while others must have constant variety and change, the relation to accidents and to quantity output, are a few of the major lines of inquiry upon which endocrines obviously have a large bearing.

Fatigue as an endocrine deficiency—a depressed state of one or more of the glands of internal secretion, abolished when its normal function is restored—is a general principle from which departures of exploration of sub-problems will proceed. An endocrine organ will secrete at a certain rate. When it is stimulated excessively, it will eject extra amounts of its secretion. How long the period of excessive stimulation may last will depend upon the secretion potential or marginor reserve of the cells, varying from organ to organ and from individual to individual. Afterwards, exhaustion and failure follow with the onset of symptoms of fatigue. Fatigue is something acute and urgent. As such, it means a violent draining of the endocrine wells. But there is also a chronic fatigue. The adrenals regulate muscle tone ; they produce nature's tonics for weary tissues. The chronic lassitude of thousands suffering from "that tired feeling" may be put down to chronic adrenal insufficiency. It requires no imagination to see that an adrenal poor subject is not fitted to a job that involves muscle stress over a long period or indeed fatiguing conditions of any sort. Nor that a thyroid poor individual is not the best choice for a position that demands a keen alert body and mind. In the selection of executives, the nature and stamina of the pituitary will undoubtedly be taken very seriously in the near future.

THE PROSPECTS FOR PUBLIC HEALTH.

By their effects upon the endocrines, public health influences, like food, clothing, sleep and over-pressure and disease, the so-called diseases of childhood, possess a tremendous importance in limiting the output of the educable. Most material and vital of these influences are the common diseases of children, for they strike directly at the glands of internal secretion. Measles, scarlet-fever, diphtheria, mumps and the others have long been accepted as providential visitations for sins known or unknown. That children had to have these and were better off when they had them, has become part of the tradition of the laity, fostered by the lazy ignorance of previous medical generations. But to-day we are beginning to ask ourselves why children must have these endemic infections of their age. The pathologist goes farther and asks the reason for certain apparent immunities. He asks why the little boy who sleeps with his brother, sick with scarlet fever, does not contract the disease, even though not protected by a previous attack. It is found now that particular infections run with special internal glandular predominances. For the symptoms presented by an infection —temperature, rash, prostration—are the details of the general reaction of the organism in the face of a new situation, the presence of a powerful destructive invader. Information has accumulated that the invader is powerful and destructive, as well as selective because of endocrine deficiency of one sort or another in the body it has attacked. Work of a number of investigators has indicated an individual's susceptibility or its reverse, resistance, is intimately subjected to the derangements or harmonies of the endocrine system.

Knowing the state of endocrine of the internal secretion reservoirs, enables one to predict the liability to certain of these infections of child-hood. Diphtheria has been found to occur most violently among adrenal poor individuals. Moreover, they are left poorer in adrenal afterwards. It follows that they would be assisted by the feeding of adrenal. Mumps is a sickness that sometimes permanently injuries the gonads—the testes or the ovaries. The thyroid dominant will rarely suffer from any of the common diseases of children—if at all,

from measles. On the other hand, those who have every infection of the period and who, as their mothers say, seem to get everything, are those who are wanting in thyroid. Thyroid poverty is an enticement to the universal microbe. Thymo-centric stands all diseases poorly. The pituitary is more liable to epidemic meningitis and infantile paralysis, typhoid and scarlet fever.

The public health officer of the future will be armed with a new weapon in his fight against the spread of an epidemic. He will be able to classify the endocrine traits of the population exposed and to advise a course of glandular feeding for the types specially liable. The endocrines will assist him in the great body of diseases for which no immunity is at hand. Should another influenza epidemic come along, the proper handling, from the endocrine standpoint, of the thymo-centrics and the related adreno-centrics would help him greatly in lowering the mortality. Endocrine types have other tendencies, which when studied and controlled, will decimate the great assassins of middle age ; heart disease, kidney disease, with accompanying degenerations of the blood vessels and circulation. The adreno-centric tends to get up a hyperacidity of the stomach and a high blood pressure besides certain forms of diseases of the lungs. The thymo-centric is predisposed to heart disease and intestinal disturbances. The pituito-centric is liable to periodic and cyclic upsets in his health.

Narcotism, the craving for narcotic or stimulant drugs and its sub-variety, alcoholism, has been found most often among the thymo-centrics. Any type of endocrine inferiority interfering with success in life may lead to the habit of drug addiction as one way out. But the blood and tissues of thymo centrics appear to become habituated to the narcotic stimulant more easily than other types and so to demand it with a physical imperative comparable to the food or sex urge. Among artists, philosophers and statesmen, on the other hand, actively productive and so contrasted with criminals and degenerates, drug addiction has frequently been a mode of compensation, i.e., the drugs produced temporarily the effects of the internal secretion lacking or insufficient. Thus, the effects of cocaine may be compared with those of the thyroid. But while there is a normal mechanism for thyroid detoxication, the cocaine or heroin derivatives mark the tissues permanently with their scars and deform the personality.

THE HYGIENE OF THE INTERNAL SECRETIONS.

The advances made in the last twenty years in the practical manipulation of the ductless glands from without, the introduction of glandular extracts by feeding or injection, the modification of their structure and function by surgery, the X-ray and radium and other procedures enable us to regard more confidently the problems hitherto accepted as the insoluble and intricate handiwork of Fate. The abdication of Fate can therefore be confidently expected in due time. However, we can begin with prevention. The theory of Adler that some organ inferiority is responsible for much unhappiness in life has received much advertisement in conjunction with the doctrines of the Freudians. Endocrine inferiority is the most frequent organic inferiority and a number of mental types may be explained upon that basis. Thus the inferior gonado-centric, who has something to do with his reproductive organs will evolve in one of two directions. If his adrenal and thyroid are of poor quality, he will become a secluded introvert, shut off from the interests of normal life. He will enter the borderland of insanity if pituitary difficulties supervene. If, on the contrary, the adrenal, thyroid and pituitary are present in a certain proportion, he will become the active, aggressive, never-resting, keen and relentless fanatic reformer. A woman who is gonad deficient, with a superior adrenal will suffer from virilism and specialise in the extreme tactics and mythology of the femininst movement. A number of life reactions are classifiable as the striving of endocrine inferior individuals to overcome their sense of inferiority. The unconscious vegetative system and the system of consciousness are both modified by the weakness of a link in the glandular chain. Periodic examinations, to check up the balance sheets of the hormone factories and to measure the amount of their damage by means of blood analysis, will provide the most valuable method in the campaign to lengthen the productive and enjoying span of life.

THE TREATMENT OF CRIME.

Endocrine hygiene will discover no wider or more fruitful area for exploration and control than that of crime. For more than a generation there have been attempts at a criminology, and a new understanding and control of crime. For a large proportion of criminals, punishment for a period of time and then letting him go free is like imprisoning a diphtheria carrier for a while and then permitting him to commingle with his fellows and spread the germ of the disease. If crime is an abnormality scientifically studiable and controllable like measles, court procedure and prison management will have to be transformed radically. There is scattered throughout the world now a group of people who are applying medical methods to the diagnosis and treatment of crime. The insane were once condemned and handled as are criminals in the most civilised countries yet. It has been shown that the greater number of convicts are mentally and morally subnormal. To explain the subnormality, the criminologist has conducted and will contrive to conduct investigations into the heredity and early environment of the criminal, his education and occupation, the social and religious influences to which he was subjected and the intelligence test quotient. The conditioning of the vegetative system and the endocrine status of the prisoner will, without a doubt, come to occupy the leading positions in any interpretation of the crime in the future. Crimes of passion may be traced in no small part to the disturbances of the thyroid. Enlarged thyroid was found in 90% of dilinquent girls. Crimes of violence may be ascribed to a break in the adrenal equilibrium. Criminal tendencies in women during menstruation and pregnancy, periods of deep-seated mutation in the internal glandular system, have long been noted. A kleptomania, uncontrollable desire to steal, confined to the duration of pregnancy alone, has been discussed. It is known that a thymo-centric, especially if he possesses a small bony case for his pituitary, is predisposed to crime. A recent study of twenty murderers shows them all to have a persistent thymus and the thymo-centric constitution. A study of the recidivists, those who return for second and third offences, disclosed that a large majority of them had a subnormal temperature, and an increased heart and breathing rate. These are endocrine controlled functions. Conduct, normal or abnormal, being the resultant of the conflict of conscious and sub-conscious impulses and inhibitions, the internal secretions as controllers of the susceptibility of the brain cells to impulses and inhibitions, must be held accountable for a portion at least of the chemical reactions behind crime.

It is possible by X-ray treatment of the thymus to cause it to shrink to more normal proportions. It is possible by feeding various glandular extracts to correct deficiencies or excesses of their functions and so to remedy the underlying basis for a criminal career. Here and there work of this kind has been successfully carried out in select instances.

CLINICAL NOTES AND PRACTICAL SUGGESTIONS

ALL ABOUT SULFARSENOL.

[We have been receiving enquiries from the profession regarding Sulfarsenol and the rational indications for its use not only for Syphilis but many other diseases where it was tried and found very useful. In answer to these enquiries we have in these pages outlined the properties of Sulfarsenol and indications for its use in the treatment of diseases basing on the experiences gathered and reported to us by the members of the profession.]

Sulfarsenol is the sodium salt of the Sulphurous acid ether of dimethylene-di-aminoarsenophenol and is presented in ampoules containing the following doses:

A	5 mgm	No. 1	6 cgm	No. 6	36 cgm
B	1 cgm	No. 2	12 cgm	No. 7	42 cgm
C	1½ „	No. 3	18 cgm	No. 8	48 cgm
D	2 „	No. 4	24 cgm	No. 9	54 cgm
E	3 „	No. 5	30 cgm	No. 10	60 cgm

Advantages.

Sulfarsenol possesses a number of advantages over other arsenobenzene compounds.

1. LESS TOXICITY: Sulfarsenol is but one-fifth as toxic as 606 and one-fourth as toxic as 914, as tested with mice. A rabbit weighing 3 kilograms tolerates 1.05 grams of this agent, the maximum therapeutic dose for man.

2. EASE OF ADMINISTRATION: In addition to the intravenous route, Sulfarsenol can be painlessly administered by the deep subcutaneous and intramuscular routes, even in the largest doses, with perfect local tolerance and absence of endothelial traumatism and nervous shock. Ideal treatment for children. Sulfarsenol is not caustic and causes no inflammatory reaction at the site of injection.

3. STABILITY: Sulfarsenol is more stable than other arsenobenzene compounds and in consequence is less subject to alteration during or after manufacture.

Each batch of Sulfarsenol is carefully tested chemically, and biologically, and samples of every batch offered for sale in Great Britain are submitted for approval to the Department of Biological Standards of the Medical Research Council.

Methods of Administration.

Intramuscular treatment with Sulfarsenol is to be preferred because of the more gradual absorption and slower excretion of the drug, which is therefore retained longer and thus given an opportunity of being converted into the active derivatives in the body. The therapeutic effect is therefore greater and more sustained than if the intravenous route is employed.

Care should be taken to ensure that the product is unaltered. Its normal colour is pale straw yellow; any brownish colour indicates alteration caused by cracking of the ampoule and such ampoules should be rejected.

Break off the tip of the ampoule 6 or 7 m/m from the extremity. With the syringe, introduce the quantity of redistilled water necessary for dissolving the contents. The water should be cold and sterile; saline or other so-called physiological solutions should not be employed.

If the ampoule is too small to contain the quantity of water needed for injection, dissolve the product in a few c.c. of water, introduce this solution into the syringe and complete to the desired volume by aspirating more water.

For obtaining dosage intermediate between the dosages provided in the ampoules, aspirate into a glass syringe of 2 c.c. having 20 divisions, doubly distilled water from the ampoule, stopping at the point on the syringe corresponding to the number of centigrams contained in the ampoule selected. Dissolve by introducing the water into the ampoule of Sulfarsenol by means of the syringe bearing the needle. Aspirate the mixture again and stop at the line corresponding to the number of centigrams desired to inject. For example, if it be desired to inject 9 cgm. Sulfarsenol, select an ampoule of 12 cgm. Aspirate distilled water, count the division lines and stop at the 12th line. Mix and dissolve then aspirate the solution to be injected as far as the 9th line, which will contain exactly 9 cgm. Fresh solutions only should be used.

Intravenous Injections.

Dissolve in 2 or 4 c.c. according to the dose. Inject slowly. In adults, inject into a vein at the bend of the elbow; in infants, inject into an epicranial or the jugular vein. Where there is malfunctioning of the liver or kidneys, preference should be given to

the intramuscular or deep subcutaneous routes.

Intramuscular Injections.

Use dilute solutions, 1 to 5 c.c. according to dose. Inject into the buttock. in the middle of a line extending from the iliac crest to the top of the intergluteal furrow. Avoid repetitions of injections at exactly the same point.

Deep Subcutaneous Injections.

Use a quantity of water sufficient to make the solution of 6 per cent to 10 per cent. Example, 6 c.c. for 60 centigrams. The dilution is of 10 per cent and will produce little or no pain if not injected into the derma. The suitable points for this mode of injection are the costo-lateral, dorsal and subscapular regions, and preferably the gluteal region.

In specially sensitive patients, the use of Arseno-Solvent in place of re-distilled water for intramuscular or subcutaneous injections is recommended.

Use 1 ampoule Arseno Solvent for quantities upto 30 cgm.
„ 2 „ „ „ 60 cgm.

Inject slowly, whatever the mode of administration employed.

The injection should be made preferably between two meals, no meal being nearer than 2 hours to the time of injection.

Utility and Waste.

All that group of arsenicals which we use in the treatment of Syphilis have one property in common.—They do not themselves kill the parasite. They combine in the body with certain proteins to form one or more proteoarsenical compounds which are toxic to Treponema Pallidium.

There is a fair amount of evidence showing that the quantity of proteins suitable for this reaction is quite limited at any given time, though more can be readily regenerated when that is used up. There is also plenty of evidence to show that the reaction takes time. For instance, such a proteoarsenical compound could not readily pass through the renal exit, but arsenic is found in the urine soon after an intravenous injection of one of these arsenicals. After intramuscular injections the arsenic eliminated in the urine is much less.

The conclusion from the above is definite. Compared, centigram for centigram, the intramuscular route is more effective and more economical than the intravenous one for such arsenicals, if an arsenical of undoubted utility is used. Doubts can only arise where a compound is used because it can be given intramuscularly rather than because it is uneffective remedy. Sulfarsenol is accepted by all the best authorities as an effective remedy, much less toxic than most such compounds, and can be given in a muscle or hypodermically. Given with Arseno-Solvent painlessness is assured.

Extracts from Original Article in The Indian Medical Journal.

THE MODERN TREATMENT OF SYPHILIS.

BY

LT-COL. W. L. HARNETT, M.A.M.B., (CAMB), F.R.C.S., (ENG). SUPERINTENDENT, CAMPBELL MEDICAL SCHOOL AND HOSPITAL, CALCUTTA.

"From the point of view of treatment the history of syphilis may be divided into two periods, the first prior to and the second subsequent to March 3, 1905, the date of Schaudinn's discovery of the Spirochaeta Pallida. The division is justifiable since the accurate diagnosis and efficient treatment of the present day has only been rendered possible by that discovery.

An inevitable corollary to the discovery of a specific organism is a research into the antibodies to it which are produced by an infected host and a by-product of such a research in the case of syphilis was the discovery of the Wassermann reaction in 1906.

The tripod on which the modern therapy of syphilis rests was completed by Ehrlich's discovery in 1909 of dioxydiamido-arsenobenzol dihydrochloride known as '606' and later as "salvarsan".

The proof by Schaudinn that syphilis is due to a spirochaete at once linked the therapy of syphilis closely with that of other spirochaetoses and indirectly with that of diseases due to trypanosomes. This was a fortunate circumstance, since these diseases can readily be transmitted to lower animals and experimental research carried out on them with comparative ease. The sterilizing effect of atoxyl on hen spirochaetosis was demonstrated by Uhlenhuth, Gross and Bickel. Levaditi and McIntosh showed

that although atoxyl has apparently no effect in vitro on the spirilla of hen spiroachaetosis, yet when the mixture is injected into a hen the spirilla fail to infect and disappear. They concluded from this that atoxyl must act by virtue of a derivative which is split off in the body of the animal. Ehrlich related that he was led to take up atoxyl by the work of Thomas and Breinl, who in 1905 showed that this compound has a destructive effect on trypanosomes in animals. Ehrlich had previously abandoned atoxyl because its effect in vitro on trypanosomes was nil, but the conclusion from the experiments quoted above that it acts by virtue of a derivative formed in the body, led him to investigate again its chemical constitution and to seek to vary its constitution with the idea of producing a compound with a greater selective affinity for the parasites than for the tissues of the host. The final result of these researches was the production of dioxydiamido-arsenobenzol dihydrochloride or '606'. This is a canary yellow powder, which on account of its liability to change into a poisonous compound on exposure to air, is kept sealed in ampoules in a different atmosphere, such as nitrogen. . . ."

"The intramuscular and subcutaneous methods of administering '606' were quickly abandoned because of the great pain and tissue necrosis which resulted at the site of injection and the uncertainty of absorption of the remedy".

"Harrison, White and Mills found in two parallel series of similar cases treated intravenously and intramuscularly or subcutaneously, that the negative Wassermann reactions at the end of the course were 12 per cent. better after the intramuscular or subcutaneous injection than after the intravenous. Furthermore immediate effects are less violent and side-effects not so common ."

"When repeated injections are administered the rate of excretion is slowed. From this arises the need for intervals during a course of injections, to allow the arsenic to be excreted. Failure to observe this rule has been responsible for many cases of arsenical poisoning due to the cumulative action of the remedy. The slower rate of absorption and excretion of arsenic when administered by the intramuscular or subcutaneous method, the better Wassermann results obtained and the lessened danger of side-effects is leading to the increasing adoption of this method, and preparations such as Sulfarsenol, which are intended for use in this way are steadily gaining in popularity."

Principles of Treatment.

In treating Syphilis it is well to bear in mind the following principles;

1. The longer the delay in commencing treatment, the better entrenched and more inaccessible to remedies the Spirochaeta becomes.
2. The predilection of the virus for the coats of vessels.
3. The tendency to infection of the central nervous system and the comparative inaccessibility of the parasite there.
4. The long periods the virus can remain quiescent in the tissues, sometimes without causing sufficient reaction to produce a positive Wassermann reaction.
5. The tendency of the virus to reawaken in damaged tissues.
6. The natural resistance of the patient, which should be exploited to the utmost in regulating his habits. Fresh air, regular hours and abstinence from excesses both in work and pleasure are worth many doses of antisyphilitic remedies.

The bearing of the above facts on treatment is this that it must (1) commence as early as possible, (2) be prolonged in geometrical proportion to the length of time which has elapsed from the onset of the disease to the commencement of treatment, (3) terminate only on satisfaction by the most exacting tests that the disease is cured. . . .

"The Toxic Effect of Arseno—Benzol.

From the earliest days in 1909 of the use of salvarsan in human therapy toxic effects have been recorded. These manifest themselves in many ways and are influenced by.

(1) THE HEALTH OF THE INDIVIDUAL PATIENT: Early in the history of salvarsan Ehrlich drew attention to the fact that toxic effects occurred most frequently in cachectic patients and in those who, in addition to syphilis, had other pathological complications. Diabetes, Addison's disease, advanced cases of nephritis unl[illegible] syphilitic origin, gross cardi[illegible] disease and hepatic disease are all [illegible] in which it [illegible] inadvisable to [illegible] arsenobenzol treat-

ment. Cases in which the drug should be given guardedly are those with advanced cardiovascular disease, those with gross syphilitic disease of the central nervous system, cases of syphilitic nephritis or hepatitis, cases of tuberculosis or other debilitating disease and all alcoholics.

(2) THE PREPARATION OF THE PATIENT: In addition to ensuring that the skin, the bowels and the other excretory organs are in good working order, it is essential that the patient should not partake of food for at least two hours prior to intravenous treatment by arsenobenzol. Too long fasting on the other hand is prone to give rise to toxic effects. If the intramuscular or subcutaneous methods are used, fasting is not necessary.

(3) THE DRUG AND THE METHOD OF PREPARATION OF SOLUTION: The '606' is undoubtedly more toxic than the "914" series. In the former great care must be exercised in the proper alkalisation, the strength of the solution must not exceed 1 grm. of the drug to each 25 c.c. of the solvent, the distilled water and saline used must be above reproach, the solution must be absolutely fresh and it must be administered slowly, whichever preparation is used. Absolute cleanliness, asepsis and painlessness are essential if the treatment is to be successful. In all patients who react badly use intramuscular or deep subcutaneous injections in preference to intravenous.

Even when all these precautions are observed, cases in which toxic effects occur are still seen and opinion is divided as to whether the remedy or the disease is the chief causal factor in their production. The reactions commonly met with may be classified as: (A) Those occuring during or immediately after the injection, (B) those following the injection usually by a few hours and occuring generally on the same day. We shall first deal with the former class of cases:—

(1) Vasomotor disturbances which take the form of puffing of the face, dilatation of the pupils, rapid pulse precordial distress and coughing: In a more severe degree the face becomes congested, the lips and tongue may swell and there may be convulsive twitching. Urticaria may come on rapidly. Usually the symptoms pass off in half an hour, but they may persist for several hours. These symptoms are known as nitritoid or anaphylactoid crises, from their resemblance to those seen in anaphylactoid shock. There is no consensus of opinion as to the actual cause of the reaction, but in all cases there is capillary dilatation and damage to the endothelium of the vessel walls and it is probable that they are due to the formation of a precipitate of the drug in the blood stream. They are uncommon when the patient is carefully prepared and the drug administered with the precaution mentioned above as to dilution, slowness of administration, etc. These reactions are very rare after subcutaneous administration. Adrenalin chloride solution 1-1000 given intramuscularly is the most useful drug both for prevention and treatment and the intravenous route should be abandoned in favour of the intramuscular in patients who react badly.

(2) Syncope—In the majority of insiances the cause is mental and in the remainder it is found that the patient has indulged in a meal immediately before the injection. In the latter case the symptoms are the prelude to an attack of vomiting.

(3) Pain in the gums and teeth occurs most often in stomatitis cases. The symptoms are probably vaso-motor in origin, the added congestion of the gums produced by dilatation of the vessels causing the pain.

(4) A taste of garlic during the injection occurs most frequently when concentrated injections are given.

(5) Urticaria following an injection is comparatively rare, but when it does occur it usually succeeds a severe vaso-motor reaction and the treatment is the same.

The disturbances following the injection and as referred to above are as hereunder:

(1) Rigor, rise of temperature and headache are amongst the commonest sequelae of arsenical injections. The symptoms have diminished in frequency and severity since attention has been drawn to the imperative necessity of using only freshly distilled water in the preparation of the injections. With modern technique they are most frequently found after first injections and are then usually attributed to release of endotoxins from the parasites. Fever is less likely to follow subcutaneous injections.

(2) Diarrhoea and vomiting are usually due to some error in the technique.

(3) Herpes labialis and occasionally zoster are infrequent.

Extract from "The Lancet" dated 23rd May 1931:

In an article in the Lancet (May 23, 1931) on "The Adequate Treatment of Syphilis" E. Tytler Burke, D.S.O., M.B. Glasg. [Director of Salford Municipal Clinic (V.D.) Instructor in diagnosis and Treatment of Venereal Diseases, Victoria University of Manchester] writes:

"A study of the mode of action of Arsenobenzols and of Bifor mercury has been discarded as being inefficient and a mere waste of time—also forced me to give up concurrent treatment. Arsenobenzols and Bi do not act directly upon the parasite. When injected into the body they stimulate the tissues to produce toxalbumins—conveniently termed arsenoxyl and bismoxyl respectively—which are lethal to Tr. pallidum. In other words, the Arsenobenzols and the Bi are the raw materials supplied to the body-factory which produces the finished article capable of destroying the parasites. The manufacture of these proteoarsenic and proteo-bismuth combinations inevitably throws some strain upon the producing-tissues of the patient. Where the two raw materials are exhibited simultaneously twice the load is cast upon the productive mechanism than when only one is given. The tissues are thus, under concurrency, more easily exhausted, and may finally cease altogether to produce the lethal toxalbumins. Thus we have another cause for drug-resistance and Wassermann-fastness."

A similar argument could be drawn in favour of smaller doses such as 24 ctg. Sulfarsenol rather than 48 ctg., for the smaller dose will the more certainly be completely converted into the necessary proteoarsenic combinations.

First get the weight of the patient. If there is much adipose tissue deduct a suitable amount for that. A patient weighing 100 lbs. who would be only 10 lbs. if the fat were reduced to normal, should be treated as an 80 lb. patient.

"TWO—ONE—ONE AND A HALF".

An effective treatment by a small dose course of Sulfarsenol.

The doctor can easily design his own system based on these suggestions.

THE FULL COURSE IS DIVIDED INTO THREE PARTS.

Day of treatment	Patient weighing about 120 lbs.	Patient weighing about 100 lbs.	Patient weighing about 80 lbs.
FIRST PART:			
1st	18	12	12
5th	18	12	12
9th	18	18	12
13th	24	18	12
17th	24	18	18
21st	24	24	18
25th	24	24	18
29th	30	24	18
33rd	30	24	18
37th	30	24	18
Total Sulf: given so far	240	198	156
Interval of 14 days			
SECOND PART:			
1st	30	24	18
5th	30	24	18
9th	30	24	24
13th	30	24	24
Total Sulf: in 2nd part.	120	96	84
Interval of 14 days			
THIRD PART:			
1st	30	24	18
6th	30	24	18
11th	30	24	18
16th	30	24	18
21st	30	24	24
26th	30	30	24
Total Sulf: in 3rd part.	180	150	120

It will be seen that for the first part of the course, which may extend to 35 or 40 days a total of two centigrammes are used for every pound weight of patient.

After an interval of 14 days the second part of the course is given amounting to 1 ctg. for each pound weight of the patient. All the above are at 4 days interval. The last part of this course, given after a second interval of a fortnight consists of 6 injections at about 5 days interval and totalling 1½ centigrammes for each pound weight of patient.

When for any reason it is preferred to give injections at intervals of 7 days instead of three or four days, the "Two-One-One and half" rule may be maintained as in the following examples:

Day of treatment	Patient weighing about 120 lbs.	Patient weighing about 100 lbs.	Patient weighing about 80 lbs.
FIRST PART:			
1st	18	12	12
8th	18	18	12
15th	30	24	18
22nd	36	30	18
29th	42	36	30
36th	48	42	36
43rd	48	42	36
Total Sulf: in 1st part.	240	204	162
Interval of 14 days.			
SECOND PART:			
1st	36	30	24
8th	42	30	24
15th	42	36	30
Total Sulf: in 2nd part.	120	96	78
Interval of 14 days.			
THIRD PART:			
1st	42	36	30
11th	42	36	30
21st	48	36	30
31st	48	42	30
	180	150	120

REPEAT COURSES:

For primary cases showing negative serum reaction, Lt. Col. Harnett recommended, after the first course

(1) No treatment for 5 weeks.

(2) Potass Iodide for 3 weeks.

grs. 15 a day for first week, grs. 21 a day for second week and grs. 30 a day for third week.

(3) a repetition of the first course of Sulfarsenol.

For primary cases showing a positive serum reaction and for secondary cases, the repeat courses consist usually of the first part only of the full course, that is to say two centigrammes for every pound weight of patient, spread over 5 or 6 weeks. Here the interval of no treatment is ten weeks followed by three weeks on Iodide before the repeat course.

TERTIARY CASES: Where cases are met with in a stage later than the secondary symptoms the courses of Sulfarsenol treatment are not so long, but are repeated oftener.

The first course in those cases consists of part one and part two of the full course two-one-one and half given above. Repeat courses are part one only.

The three weeks on Iodide are placed immediately after the Sulfarsenol course and before the "no treatment" interval in Tertiary Cases.

THE ONE—ONE—ONE AND HALF COURSE FOR NERVE CASES.

For Nerve Cases all authorities appear to agree in giving more frequent doses. For an average Indian patient, which we take to be say 95 lbs to 100 lbs, Lt-Col. Harnett has suggested for Sulfarsenol.

Day 1st 4th 8th 11th : 15th 18th 22nd :
24 24 24 24 36 36 36
(Total 96 ctg). : (Total 108 ctg.) :
29th 36th 43rd
48 48 48 ctg
(Total 144 ctg.)

For a patient of 90 lbs. weight we suggest

Day 1st 4th 8th 11th : 15th 18th 22nd:
18 24 24 24 : 30 30 36 :
(Total 90 ctg) : (Total 96 ctg) :
29th 36th 43rd
42 42 48
(Total 132 ctg)

For a patient of 80 lbs. weight we suggest

Day 1st 4th 8th 11th : 15th 18th 22nd:
18 18 18 24 : 24 30 30 :
(Total 78 ctg) : (Total 84 ctg) :
29th 36th 43rd
36 42 42
(Total 120 ctg)

The first seven injections are at intervals of three or four days and the last three after intervals of seven days.

This Nerve Case treatment may be described as a One—One—One and half course with no rests.

The first four injections total nearly 1 ctg. for each pound weight of patient, the next three injections total about the same and the last three total half as much more than that.

OTHER INDICATIONS FOR SULFARSENOL.

FOR ADULTS WEIGHING ABOUT 130 lbs.

MALARIA.

1st	day	morning	6 cgm.
3rd	,,	,,	12 cgm.
5th	,,	morning	12 cgm.
		evening	6 cgm.
6th	,,	morning	12 cgm.
9th	,,	morning	18 cgm.
		evening	12 cgm.
10th	,,	morning	18 cgm.
14th	,,	,,	24 cgm.
19th	,,	,,	24 cgm.
23rd	,,	morning	12 cgm.
		evening	12 cgm.
24th	,,	morning	12 cgm.
29th	,,	,,	30 cgm.

Course with dosage modified for use in average Indian patient weighing about 100 lbs.

MALARIA.

1st	day	.....	6 cgm.
3rd	,,	.....	6 cgm.
5th	,,	morning	6 cgm.
		evening	6 cgm.
6th	,,	morning	12 cgm.
9th	,,	morning	12 cgm.
		evening	6 cgm.
10th	,,	morning	12 cgm.
14th	,,	,,	18 cgm.
19th	,,	,,	24 cgm.
23rd	,,	morning	12 cgm.
		evening	12 cgm.
24th	,,	morning	12 cgm.
29th	,,	,,	24 cgm.

If injections cannot well be given at such close intervals progressively increasing doses may be employed, one injection being given every four or five days. The following progressive of Sulfarsenol in cgm. doses may be adopted: 6, 12, 18, 24, 30, 36, 42 and 48.

FRAMBESIA (Yaws).

For an adult weighing about 130 lbs.		For a child weighing about 17½ lbs.	
1st day	18 cgm.	1st day	3 cgm.
4th day	30 cgm.	4th day	6 cgm.
7th day	42 cgm.	7th day	12 cgm.
10th day	54 cgm.	10th day	12 cgm.
15th day	60 cgm.	15th day	12 cgm.

FILARIASIS.—Progressive series, as in Syphilis.

AMEBIC DYSENTERY.—Injections progressing from 6 to 36 cgm.

SLEEPING SICKNESS (Trypanosomiasis.)

For body weight of about 130 lbs.

1st day	54 cgm. intravenously,	in the morning.
	54 cgm. intramuscularly,	in the evening.
2nd day	54 cgm. intramuscularly,	in the morning.
5th day	84 cgm. subcutaneously	in 2 or 3 fractional doses 8 to 12 hours apart.
9th day	84 cgm. subcutaneously	
14th day	84 cgm. subcutaneously	

After interrupting treatment for 3 weeks, repeat the same treatment, with doses 1/3 as large.

RAT-BITE FEVER.—Progressing series, as in Syphilis.

GONORRHOEAL COMPLICATIONS.—18 to 30 cgm. once daily, for four or five days, rapidly suppresses pain and inflammation. The action of this substance is particularly effective in cases of arthritis, acute rheumatism and epididymitis, prostatitis and salpingitis. More effective and surer than vaccines.

PUERPERAL INFECTIONS.—12 or 18 cgm. daily for 3 or 4 days. Successful results are being obtained in Indian Hospitals by giving 1 dose No. 3 every 2nd day until 3 or 4 injections have been administered. Special contra-indications: eclampsia, asystole.

DISSEMINATED SCLEROSIS.—One injection per week (6 cgm. progressively increased to 24 cgm.) for approximately 3 months, until a total of 3 grams has been administered.

ERYSIPELAS.—12 or 18 cgm. daily.

MUMPS.—Adults: 18 to 30 cgm. once daily for four or five days. Children and infants: doses according to weight.

VARIOLA.—12 to 24 cgm. every two or three days.

PULMONARY GANGRENE.—18 to 24 cgm. once or twice daily for three or four days.

ATHREPSIA, ANOREXIA, ANAEMIA IN INFANCY.—Small progressive doses, twice weekly.

ENDEMIC GOITRE.—Associated with oil of chenopodium. 24 cgm. every 3 days, until the total dosage reaches 4 grams.

VINCENT'S ANGINA.—Application of a 1 in 15 solution in glycerine.

Chronic Dermatoses (psoriasis, lichen, pemphigus, polymorphous dermatitis of Brocq-Duhring).

Employ a series of Sulfarsenol injections similar to that shown in Dosage scheme for

Syphilis, but given intravenously. Give between each dose an auto-hemotherapeutic injection. Apply local treatment.

HERPES ZOSTER.

Intramuscular injections :

1st day.....12 cgm.
4th day.....18 cgm.
8th day.....18 cgm.
14th day.....18 cgm.

DIABETES.—If a specific origin is suspected, a course of Sulfarsenol may be well worth trial.

PYORRHOEA ALVEOLARIS.—Make a 1/1.000 solution (1 cgm. Sulfarsenol in 10 c. c. water). Inject the gingival mucosa at three points, the depth of the injections not exceeding 3 or 4 m/m. Repeat once daily for one week, then give, in the same way, three injections of 12% gomenol in oil.

SURGICAL OPERATIONS.—Prepare by giving intramuscular injection of 8 to 10 cgm.

BLOOD TRANSFUSION.—6 cgm. Sulfarsenol, dissolved in 2 c. c. water, render 100 grams of blood incoagulable. Moisten the instruments with a similar solution. The anti-coagulating power of Sulfarsenol is 10 times greater than that of Sodium Citrate and 1/10th as toxic (tests on guinea pigs).

THE ROLE OF GENESERINE IN THE TREATMENT OF DISEASES.

In many asthenic conditions such as Neurasthenia, signs of profound disequilibrium of the organic nervous system are apparent. Digestive troubles are common concomitants. Loss of appetite, distaste for food, painful digestion, sensation of weight in the stomach, distention after meals and heat waves, are signs of nervous sympathico-tonic dyspepsia, which, according to Professor Surmont, Geneserine subdues with surprising rapidity. Heart troubles are also quite frequent in asthenic patients, and when cardiac erethism or palpitations are observed there are also definite signs of hyper-excitability of the sympathetic nervous system, which can be readily controlled by Geneserine. It has been shown by the latest researches that the nervousness of these patients, their insomnia, irritability, tendency to worry without sufficient reason and the anxiety complex with Melancholia, are connected with this sympathetio-tonic condition.

The central nervous system and the organic nervous system are closely related. Any derangement of the activity of the sympathetic affects the conscious processes and these deplorable results ensue. Asthenia itself is dependent on the same condition. It is well known nowadays that it does not result from complete exhaustion of a muscular nature, but rather from a kind of inhibition, exercised by the sympathetic system in a state of hyper-excitation on the nervous functions which control muscular activity and conscious cerebral processes.

It is therefore necessary to supplement the ordinary medicinal treatment of asthenia by the addition of a therapeutic agent that will restore the normal activity of the disordered sympathetic system. As proved by the results obtained now for several years Geneserine is the most effective of these agents. Its action tends, in a higher degree than that of any other remedy, to increase the appetite, to improve digestion, to reduce cardiac erethism if present, to restore sleep and to suppress the anxiety complex. This last effect is very pronounced ; even before the patient has recovered the full degree of physical vigour and intellectual activity, the desire to work and the interest in life are re-awakened. Geneserine supplies a means of restoring the organic equilibrium, without which the stimulation of the depressed organism by the arseno-strychnine treatment cannot supply any durable result ; and it may be inferred that in conjunction with the salts of arsenic and strychnine, it provides a medicinal combination of unequalled efficacy. It is suggested that during a course of treatment of asthenic and neurasthenic conditions with arseno strychnine combinations such as Hypercytol a few pilules daily of Geneserine may be prescribed for oral use. Two to four pilules per day are usually sufficient.

Abstracts

The 25th All-India Medical Licentiates' Conference, Madras.

RESOLUTIONS

1. *a*. That this Conference condemns the Indian Medical Council Bill as introduced in the Legislative Assembly on 23rd March 1932, with its present preamble which seeks to introduce water-tight compartments in the medical profession and requests the members of the Legislative Assembly to throw the Bill altogether at its first reading. (*b*). That a Committee consisting of Rai Rahadur Dr. Sarju Prasad, Rao Sahib Dr. U. Rama Rau, and Rai Bahadur Dr. Hari Ram with powers to co-opt be appointed to approach the members of the Legislative Assembly with a view to have it amended as its introduction will seriously injure the solidarity of the medical profession. (*c*). That the copy of the above resolution be forwarded to All-India Medical Conference at Lucknow, to all members of the Legislative Assembly and the Council of State and to the Government of India.

II. That this Conference requests the Government of India and Local Governments to raise the course of instruction imparted in medical schools from 4 to 5 years, with a view to affording opportunities to the alumni of the medical schools to progress further and to make them eligible to all grades of service.

III. Resolved that the members of the Association should attend the All-India Medical Conference at Lucknow in large numbers as delegates at their own expense and should impress upon the Conference the urgent necessity of issuing a mandate to the profession to keep themselves aloof from registration, in case the Medical Council Bill is passed as it stands.

IV. Resolved that the post of the Manager of The Indian Medical Journal be separated from that of The Editor. V. That the Manager of the Journal be an honorary one. VI. That the Editor of the Journal also be an honorary one. VII. Letter from Rai Sahib Dr. Sital Chandra Datta: Read and recorded. Resolved further that Messrs Advertising Agency, Princess Street, Bombay 2 be asked to pay the amount due from them to the Treasurer of the Association. VIII. Resolved that th[illegible] Bills be paid in the coming [illegible] in order.

IX. This resolution was to th[illegible] to permit the Licentiates to qualify th[illegible]selves for the Diploma in Public Health at the All-India Institute of Hygiene and a request was made to the authorities that in case the Calcutta University declines to admit the Licentiates to the D.P.H. degree, the All-India Institute of Hygiene should grant independent diploma as the Calcutta School of Tropical Medicine had been doing heretofore.

X. This Association requests the various Provincial Governments to introduce the system of granting study leave to medical licentiates under Government service as per fundamental Rules prevailing in the Madras Presidency at an early date.

XI. Read the Accounts. Resolved that they be sent to the Finance Committee after which they should go to the Standing Committee.

XII. This Conference strongly disapproves of the present policy of Insurance Companies of making distinctions between medical licentiates and graduates, and also between those holding Indian degrees and diplomas, in the medical examination of insurance cases and is of opinion that all medical practitioners registered in India should be eligible for appointment as medical examiners for insurance work on equal terms and further resolves that the copy of the resolution be sent to the President, Indian Insurance Association, for information and necessary action.

XIII. This resolution congratulated the Madras University on having permitted the Licentiates for the M.B.B.S. degree and the conference requested other Universities to do likewise.

XIV. This resolution requested the Government not to apply the Retrenchment Axe to Sub-Assistant Surgeons and not to entertain medical men of higher qualifications than the Licentiates to the cadre of Sub-Assistant Surgeons.

XV. (*a*) This Conference is of opinion that such Sub-Assistant Surgeons who have earned higher qualifications be raised to the gazetted rank in service in consideration

of the immense trouble and expenses incurred by them and of the proficiency attained. (b) That in the event of there being no vacancy in the cadre, these Sub-Assistant Surgeons be promoted to the Assistant Surgeon's grade with supernumerary rank. (c) That in fixing the scale of pay in the gazetted rank past services in the Department may be taken into consideration. (d) and such of those who possesses the high qualifications as M. D., M. S., F. R. C. S., M. R. C. P., etc. be appointed to the superior ranks in the various special cadres.

XVI. This resolution was to the effect that in securing second opinion on medical certificates issued by private practitioners, the rules of medical etiquette should not be overlooked.

XVII. Resolved that the Sub-Assistant Surgeons under the employ of the local bodies be under the provincial control as is the case with Assistant and District Engineers.

XVIII. Resolved that provincial governments be requested to amend the provincial medical acts so as to provide proportionate representation of the several grades of practitioners and that all practitioners be grouped together in the register and the election be held on joint electorate system.

XIX. Resolved that the Universities in India be requested to admit Licentiates for the University degrees without any additional preliminary qualifications.

XX. That only specialists in particular subjects should be appointed as teachers in the medical schools in India.

XXI. That a committee consisting of 1. Rao Sahib Dr. U. Rama Rau, 2. Dr. V. Rama Kamath, and 3. Dr. G. Subbarayadu be appointed to explore avenues of persuading the Government and the Universities to accept a scheme to be drawn out by this committee.

XXII. Resolved that the Conference authorises Rai Bahadur Dr. Sarju Prasad Tewari, President of the Association to deal in Government securities to collect principal and interest and dispose them off in the interest of the Association.

The Ninth All-India Medical Conference

RESOLUTIONS

1. This Conference places on record its sense of profound sorrow at the demise of Colonel Sir Ronald Ross, M.D., LL.D., F.R.S., etc., whose life-long and selfless service in the cause of humanity in tackling the problems of Malaria has saved millions from death and many more from suffering. This Conference offers its heartfelt condolence to the members of the bereaved family.

2. This Conference emphatically reaffirms its previous resolutions passed in Calcutta last year regarding the Indian Medical Council Bill and requests the Government not to press the consideration of the Bill until the Assembly is reconstituted under the reformed Constitution and the whole matter is considered in all its implications by the Provincial constituents of the newly proposed Federated Assembly.

3. That in case the Government presists in introducing the Bill in the Assembly, a Watch and Ward Committee consisting of the following with power to co-opt be constituted to take necessary steps to safeguard the interests of the profession: Major Naidu, President, Drs. K. S. Ray, K.K. Dadachanji, Sathaye, Modi, Rama Rau, Subba Rao, P.B. Mukerjee, Haider Ali Khan. D'Silva, Bhave, Col. Bhola Nauth, B. J. Sahni, Khanna, A. L. Sayeed, Rai Sahib Sarju Prasad, Hukku, S. S. Sharma, Kunj Behari Lal, and S. H. Majumdar.

4. That in the opinion of this Conference the time has come that the members of the independent medical profession be placed on an equal footing with the medical officers belonging to the superior services in the matter of granting leave certificates. It strongly urges on the Government to take immediate steps in this matter as has been done in Bengal by the Bengal Council of Medical registration. This Conference urges upon all provincial medical Councils other than Bengal to take up the matter on the lines indicated above.

5. That this Conference is of opinion that the system of utilising the services of local practitioners in hospitals and medical institutions under Government and Local Bodies with the grant of subsidies, if necessary, be introduced widely throughout the country.

6. This Conference urges on the Government the great necessity of encouraging the cultivation on a large scale of medicinal plants with the help of their Forest and Agricultural Departments.

7. This Conference urges the Government to encourage and to develop cinchona plantation on a large scale in this country in view of the high cost of and the extensive demand for cinchona products.

8. This Conference recommends to the Government to institute an Expert Committee to enquire and recommend about the possibilities of developing the numerous thermal and mineral springs which are in existence in different parts of India.

9. This Conference recommends to the Government that a uniform rebate in income-tax should be allowed in all provinces on the amounts spent by practitioners in the maintenance of telephones, motor cars or other conveyances, medical periodicals and medical instruments and books used in their professional work.

10. As the All-India Institute of Hygiene is shortly going to be opened at Calcutta, this Conference requests the authorities of the Institute to throw open its door for post-graduate training to all medical practitioners registered in India irrespective of their qualifications.

11. (a) This Conference learns with regret that no representatives of the independent medical profession have been taken on the Governing Body of the All-India Institute of Hygiene at Calcutta and that the Government be requested to add at least two distinguished members of the independent medical profession thereto. (b) A copy of the above resolution be forwarded to the Governing Body of the Rockfeller Foundation, the Government of India, the Governing Body of the Research Fund Association and the Director of the Hygiene Institute.

12. That the Government of India be requested that when the scheme for the establishment of the All-India Medical Research Institute materialises, full effect be given to the recommendations of the Conference at Simla passed in July 1930.

13. The Conference is of opinion that the system of taking in post-graduate honorary research workers in all the Research Institutes of India should be introduced as early as possible as it exists in other scientific departments of the Universities in India as well as in Europe and America. It is also of opinion that research scholarships from Indian Research Fund Association, should be given to meritorious workers, who may subsequently be appointed as paid workers.

14. This Conference is strongly of opinion that the recommendations of the Simla Conference of July 1930 regarding the reconstitution of the Governing Body of the Indian Research Fund Association be given effect to without further delay.

15. This Conference is of opinion that the Universities of India should take immediate steps to institute a Chair in Pediatrics for post-graduate students.

16. This Conference is of opinion (a) that the preliminary qualification for admission to all medical institutions should be the Intermediate (Science) Examination certificate of different Indian Universities or its equivalent, (b) that it is urgently necessary to improve the equipment and standard of education in the Medical Schools so as to approximate the same to that of the Medical Colleges of the University standard, (c) that in the meanwhile the Conference strongly recommends (i) that the training of the Licentiates should be improved by (1) extending the period of instruction in the Medical Schools to at least 5 years throughout India, (2) the better equipment of schools and (3) the appointment of better (specially qualified) teachers therein, (ii) that facility should be given to the Licentiates to enable them with further supplementary training to appear at the University Examinations for medical degrees, and (iii) that a Committee of eminent medical men be appointed by Government to go into the whole question and report at an early date.

17. This Conference brings to the notice of the Indian Universities the urgent necessity of starting and developing research in indigenous drugs and that a copy of this resolution be forwarded to the Deans of the Faculties of Medicine and the Vice-chancellor of the Indian Universities.

18. The Conference is of opinion that the conditions of service in the Public

Health Departments in the various provinces are still very unsatisfactory and it urges on the Government the necessity of reorganising those services on sounder basis with respect to their salaries, tenure of office and the provision of pension or a provident fund.

19. That in view of the high mortality and the prevalence of wide spread epidemics in the country, this Conference strongly urges on the Government and the public the great necessity of developing the Public Health Department. The expenditure on public health in the various provinces is still much below the level required to produce tangible results. The Conference expects the Medical Profession in this country to realise their duty of promoting public opinion in this direction.

20. That in order to derive full benefits from the activities of the Public Health Department of the various provinces in India, this Conference considers it necessary that greater co-ordination between provinces is essential and suggests that the services of the Public Health Commissioner with the Government be utilised for this purpose. A Conference of experienced Public Health Officers be summoned to suggest ways and means.

21. This Conference expects medical men in India to help Indian industries by using, as far as possible, and as far as it is compatible with efficiency, drugs, medical and surgical appliances, etc., of Indian manufacture.

22. This Conference urges upon the members of the profession in the country, where and when possible, to contest seats in the Central and Provincial Legislatures and Municipalities, with a view to impress upon the country the great need and the great demand of preventive medicine, and incidentally, to advance the interests of the profession.

23. This Conference urges the Insurance Companies operating in India both foreign and Indian to put on an equal footing all the Registered Medical Practitioners irrespective of their scientific qualifications whether received in India or abroad.

24. This Conference resolves that in order to prevent the exploitation and to safeguard and promote the economic status and interests of the profession with due regard to public interests a permanent economic organisation of the medical profession should be established without delay in every province.

25. This Conference offers its heartfelt thanks to the Chairman and members of the Reception Committee of the Ninth All-India Medical Conference and the office-bearers of the different Committees and Sub-Commitees for the trouble taken by them in organising the Conference at Lucknow and making it a success.

26. This Conference offers its grateful thanks to the Chairman and offiicials of the Lucknow Muncipal Board for having permitted the use of the Town Hall for the holding of the Conference and the authorities of the King George Medical College and Hospital and the Provincial Hygiene Institute for their help in arranging visits to their institutions.

Extracts from the Memorandum of the Indian Medical Association submitted to the India Government on the eve of the introduction of the Indian Medical Council Bill.

"If we are to have an All-India Medical Council it is advisable that the Council should be comprehensive and not restrictive in its scope. The limiting of the register to the higher grade qualified practitioners excluding the largest section of Indian Medical practitioners numbering 30,000 licentiates is in our view, inequitable." This was the opinion expressed in the course of the memorandum.

The memorandum added that unlike other countries where privileges and immunities are allowed to medical men the Bill entirely omitted any reference to them and gave nothing in return except, perhaps vague and problematical prestige for their pretty high registration fee. It gave nothing more than what registration under the existing Provincial Council of Medical registration now provided.

The memorandum suggested the inclusion of a competent member of the independent medical profession in the Select Committee of the Assembly. There was, it said much ground for objection quite apart from any question of sentiment. Unfortunately Government's action and the statement led them to infer that the real intention of the

Bill was to placate General Medical Council and they considered it unnecessary. In the second place they had to study the interests of the scores of men who had proceeded abroad for medical training particularly to the United Kingdom.

LARGE INTERESTS.

In the third place those who proceeded to the United Kingdom in order to graduate find the difficulty in obtaining recognition by the G. M. C. and lastly that an increasing number of Indian students had proceeded to the continental countries where they were given every encouragement and facilities. Therefore if it was thought that to bring the licentiates within the scope of the Bill would jeopardise the chances of recognition of Indian Medical degrees by the G. M. C. the memorandum submitted that the interests of 30,000 medical practitioners were more important than the recognition by this British institution.

The memorandum also pointed out that the proposed composition of the Council was entirely wrong as the larger interests and the bulk of the medical profession were overlooked while all Government interests were strongly fortified. The memorandum failed to see why if the four-year course of medical training in Japan was sufficient to gain the G.M.C.'s recognition, the Indian licentiates should not be similarly recognised.

Notes on Treatment of Diseases.

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

Hemicrania: Antipyrine or Phenacetine and the usual coal tar preparations in moderate doses are the most popular remedies. If there is pallor on the face Nitroglycerine 1/100 gr. every two hours; Cannabis Indica gr. 1/3 can be given for a long time. Thyroid gland 3 grains for a day combined with Corpus Luteum has been given with very good results.

Heart Diseases: In mitral stenosis where there is difficulty of the passage of blood on account of its viscidity, citric acid is good as it removes the calcium in the blood and makes it flow freely. Digitalis is good in heart failure and cardiac dilatation. If the heart is utterly gagged give a large dose of 5 to 20 mms. of Tr. Digitalis three times a day. Digitalis should not be given if there is heart block. It is good in mitral regurgitation and also in mitral stenosis but if the latter is accompanied by missed beats it should be given with great caution. In this case Caffein and Ammonia are useful and also atropine and strophanthus.

In auricular fibrillation met with in mitral stenosis, Digitalis is useful. In aortic stenosis also it is useful but in aortic regurgitation it should not be given but Tr. Strophanthus 5 to 20 mms. or Adroidin 1/8 to 1/2 gr. Spartine ½ gr. may be given. Quinedine Sulph. in doses of 0. 2 to 0. 6 gr. three times a day is good (Rudolf).

In arythmia, Spartin or Belladonna is useful.

In cardiac dilatation or Asthma, Digitalis is useful but in old persons Sodium nitrate and Iodide should be given.

In Myocarditis, Digitalis is of little use.

In Cardiac Hypertrophy, aconite and veratrum viridi are good.

In fatty degeneration, Nitroglycerine, Iodide, Strophanthus with or without Nux Vomica are useful.

In fatty infiltration, exercise is good (Hare).

In weak, dilated and irritable heart 5 gr. of the blue pill at night is effective (Sajous).

In heart emergencies or collapse with pallor and cyanosis, Caffeine and Strophanthus are the best remedies. Caffeine Sodium Benzoate may be given intravenously 65-130 m. g. doses every two hours if necessary. Oubaine (a preparation of strophanthus) 0.25 to 0.5 m.g. may be given intravenously at once and repeated once daily for 4 or 5 days till 1.0. to 1.6 m.g. have been taken (Year Book 26).

In aortic regurgitation, Oubaine in 1/480-1/240 gr. given intravenously every 12 to 24 hours for 4 days consecutively gives relief in heart failure. (J. A. M. A.).

In weak heart, Folio Digitalis Pulvis 0. 025 grm. and 0.2 grm. Calcium Lactate made into tablets may be give three times a day as heart tonic.

In failure of right side of the heart accompanied by mitral stenosis and auricular

fibrillation, Digitalis and Strophanthus are useful and in severe cases Strophanthin 1/250 gr. may be given every hour. In failure of the left side of the heart accompanied by aortic disease and high blood pressure Strophanthus is better than Digitalis.

In Myocarditis with or without auricular fibrillation the various forms of Theobromine especially Theocalcin is tried with good effects.

In impending heart failure, Cardiozol is better than camphor in oil. (P. M.).

In irritable heart with palpitation, Strontium Bromide drs-3, Liq. Arsenicalis dr. 1 Spt. Chloroform drs-2, Ext. Glyceriza Liq. drs-4 Aqua Menth ounces 6; a tablespoonful in water three times a day after meals is good. (Rudolf).

For sudden stopping of heart, intercardiac injection of Adrenaline 1 cc of 1 : 1000 through the 4th and 5th intercostal space close to the sternum into the right ventricle. (Rudolf.)

Heart-block, Barium Chloride to be given in 50 m.g. doses 4 times a day and also atropine in suitable doses.

In cardiac insufficiency, calcium dieuretin is a good dieuretic.

Stokes Adam attack Adrenaline to be given subcutaneously mms. 10 of 1 in 1000 and in urgent cases mms. 5 into the heart direct or Barium Chloride 3 grs. per day. Ephedrine is also effective.

In auricular extrasystole Digitalis is useful either alone or with Atropine. In ventricular extrasystole Digitalis should not be given ; but Quinedine is useful.

In conjestive heart disease rest, and Digitalis. (White)

Paroxysmal Trachycardia may be relieved by pressure over carotid artery right or left or on the eye ball.

Notes on Therapeutics, Diagnosis and other Medical Subjects.

BACTERIOPHAGE THERAPY IN BACILLARY DYSENTERY

By Dr. V. Rama Kamath.

As is the case with dress, food, etc., there is always a distinct tendency in human nature not to adapt itself for a change unless it comes as a matter of course or necessity. It is so in the application of particular therapies in the treatment of diseases. The bacteriophage therapy to combat diseases of a bacterial origin, does not seem to be as popular in Madras province as it is in Bengal and its neighbouring provinces. Close contact of Government Research Institutes or of those who are working in them, is perhaps one of the causes of the popularity of the bacteriophages in Bengal. Though I have occasions and opportunities to know about the uses of the several bacteriophages in the treatment of diseases, being conservative by nature, I usually do not try new things or new methods unless they become sufficiently old, or unless I am driven to adopt them as a matter of necessity when I could not do anything else to relieve or cure my patients.

About a year ago a rich patient, a merchant, consulted me as an out-patient for chronic dysentery, from which he had been suffering for over a year. The history was that he contracted it while he was in Karachi. He had at the time synovitis of the right knee joint and the left knee was also slightly painful. From my conversation with the patient I gathered that neither emetine nor preparations of Kurchi by mouth or by skin did relieve him. The only drug which had a control over the dysentery was some preparation of opium or other given in combination with Bismuth and other astringents. He had over a dozen prescriptions with him given to him by various doctors at Karachi, Delhi, Mussoorie and Bombay. There was a history of his having suffered from syphilis, four years before he saw me, for which he said he was treated by injections by a well-known doctor at Bombay. He also gave me to understand that after the course of injections his blood was tested for Wassermann reaction which was negative. I was rather confused as to what to do as the patient had tried and

knew almost all the routine medicines usually prescribed by general practitioners for the treatment of dysenteries. The patient did not allow me to take his blood for retesting the same for Wassermann reaction as he said he consulted one of the biggest doctors in Bombay who certified that he was free from infection. It was not possible to win him over. But fortunately his fæces was not examined anywhere, and he consented to send me a specimen the following day which I sent to the King Institute Guindy and got the following report :

"The microscopical examination shows no signs of an amoebic infection, but a definite indication of a bacillary infection. The organisms isolated however do not belong to the typical Shiga or Flexner groups. It is evidently a case of chronic bacillary dysentery and should be treated as such."

Being a chronic case, though suspected of bacillary infection, I could not make up my mind to give the patient anti-dysentery-serum, and as good luck would have it, I remembered about bacteriophage therapy though till then I did not administer bacteriophages for dysentery. I ordered Bacte Dysentery Phage prepared under the scientific control of Dr. D'Herelle.

I had faith in the preparation, as the name of Dr. D'Herelle is closely associated with research in bacteriophages not only in the West but also in India. The patient was asked to take one ampoule of 2 cc. mixed in 2 ozs. of sterile water made alkaline by the addition of 3 grs. of Sod. Bicarb. to an ounce. This dose was repeated every two hours till four doses were given. Within 24 hours the patient was 50% better, the motions turning faecal, and in the next 24 hours the dysentery symptoms had all gone. The synovitis from which the patient had been suffering at the time though relieved to a great extent was not all gone by the time the dysentery symptoms disappeared. The patient naturally gained some confidence in me on account of his being relieved of his dysentery and when I requested him a second time giving him reasons that it was desirable to examine his blood once again, he consented. The blood was sent to the King Institute Guindy, and the report was Wassermann reaction weak, positive. The patient was put on antisyphilitic treatment and was finally rid of synovitis also. Evidently the joint trouble had something to do with bacillary dysentery, but would not yield on account of the patient having syphilitic infection, still lurking in his system as was evidenced by the Wassermann test.

Ever since I have been trying Bacte Dysentery Phage in almost all cases of dysentery which did not yield to the routine treatment adopted for amoebic dysentery and had invariably good results though I have to say that many times it has been my lot as a general practitioner to diagnose cases by treatment. Usually in out-patient practice for reasons well-known to the profession we cannot be as scientific as we would wish to be on account of causes beyond our control and at times due to our helplessness in not being fortunate enough to have always rich patients or intelligent patients who would realise the rationale of scientific diagnosis. I give this therapy a trial for 48 hours, and if within that time the symptoms are not relieved, I come to the conclusion that the bacteriophage therapy is not indicated in the particular case. Some special attention should be paid regarding diet and drugs. It should be a rigid plan that the patient should not have anything except plain thin arrow-root gruel sweetened with sugar. No antiseptics should be used during the course of treatment, not even tooth powders for cleaning teeth. The best material to be used for cleaning the teeth is table salt on a brush.

New Discoveries.

CHEMICAL CHANGES IN MENTAL CASES.

An important development of bio-chemistry in recent times has been the investigation of changes occuring in the blood and tissues in various mental disorders. In the issue of " The Lancet " Dr. J. H. Quastel, Director of Research at the Cardiff City Mental Hospital, deals with some aspects of this matter. He points out that the mental symptoms which develop at high altitudes, such as loss of judgment and memory, irritability, loss of all sense of time and emotional instability, are essentially due to lack of sufficient oxygen in the tissues of the brain.

Dr. Quastel proceeds to point out that interference with normal oxidation processes

in the brain is also produced by certain drugs used to produce states of deep sleep and unconsciousness, and these drugs can slow up the oxidation processes of certain of the derivatives of sugar which circulate in the blood.

INSULIN

By the use of insulin and glucose the toxic symptoms produced by these narcotic drugs can be prevented from developing, and by a skilful combination of insulin, glucose, and suitable drugs it is possible to produce great benefit in mental patients who may be kept "asleep" for days and allowed to awake in a much improved state of mind.

It has also been found that in certain types of mental disorder associated with great emotional tension there is also a profound disturbance of the body's power of utilising sugar as a whole. There is a direct relationship between the "sugar tolerance" of such patients and the emotional tension as measured by psychogalvanic studies. It has also been found that the bromine in the blood of certain mental patients is about 40 per cent. lower than normal.

The relationship of mental upset to the sugar-chemistry of the body is of great interest, in view of the results obtained in the "nervous" type of child by the administration of glucose. It is possible to change a bad-tempered, restless child, who sleeps badly with night terrors, into a comparatively normal individual in many instances by giving extra sugar in the diet. The work now proceeding at Cardiff suggests that something similar may be true, only in a rather more complicated fashion about certain mental disorders in adults.

(*The Times of India*).

Dr. G. L. Deshmukh, Bombay, writes:—"Intramuscular injection of mms. 10 of mother's blood sucked up from a vein into a syringe containing mms. 10 of normal saline perfectly sterilised, into the gluteal muscle stopped the sanguinous lachrymation in a child of one year. Will this haemotherapy be applicable profitably to haemophilic individuals?

Dr. Deshmukh writes further:

The readers of The Medical Practitioner might remember my having reported about my experience regarding the use of milk with 4 gr. of Papain or Pepsin given by rectum in place of Peptone injections with good results (Vide The Medical Practitioner Vol. III No. 8 May 1932).

I have since found out another phenomenon that suggestion also has a place in the treatment of Asthma. Asthmatics being quick tempered drain their stock of Adrenaline and consequently a change in their temperament brought about by suggestion will often prevent attacks of Asthma as there will be naturally less extra call upon the Adrenaline. Thus Adrenaline being conserved on account of the change in the temperament, the tendency for getting attacks of Asthma will be very much less.

News and Comments.

Indian Medical Council Bill: The Indian Medical Council Bill was taken up for discussion on the 13th instant by the Assembly on the motion made by the Education Secretary who proposed that the Bill might be sent to a Select Committee for report. From the speech of Mr. Bajpai the Government Secretary and of the non-official members who followed him, it was clear that neither the Government nor the members of the Assembly who spoke on the Bill so far, have understood nor realised the purpose of the Bill in public interest. The member-in-charge of the Bill and his Secretary who preceded him while attempting to deny the charge that the Bill had been introduced mainly to placate the General Medical Council actually pleaded guilty. All the propaganda conducted by representative associations as well as leaders in the profession, has not been able to impress on the members of the Assembly the most important salient feature with regard to the need of a Medical Council of all India nature which ought to have been only to serve the purpose of regulating the qualifications of practitioners. No argument has so far been adduced by any member about the fundamentals. The Government ought to have been referred to the Medical Act of 1858 passed by the British Parliament, whose preamble ran as follows: "Whereas it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners . . . ." The Government must have been also informed that in 1858 there existed in Great Britain

a class of practitioners practising Allopathic system who did not undergo any training in any existing institutions, and the Parliament thought it desirable more in the interest of the public than of the profession to include them in the Medical Register because then only the Medical Council could exercise disciplinary control over them. Though all sorts of medical institutions existed then as they exist now, it was not thought derogatory to include unqualified medical men in the Medical Register. But in 1933 the Government and a few others feel it derogatory to include in the Register the medical licentiates who have undergone four years medical training in Government institutions and who have acquitted themselves as honourably as other members of the profession and who are already in the provincial registers. So it is plain that the Medical Council Bill does not at all serve that purpose for which medical councils were brought into existence in other civilised countries. It will be most humiliating at this juncture to pass this Bill when the whole country is preparing itself to have equal rights and privileges under the British Empire. The political leaders should not be a party in passing a measure for no other purpose than to bring the independent medical profession in India under the thumb of the General Medical Council of Great Britain. So if there were to be an All-India register at all, it must include in it all the existing practitioners now in the provincial Registers, or else there should not be an All-India Register at all.

Small-pox: This disgusting and fatal pestilence is raging as a pandemic throughout India. Unlike other diseases, like malaria, leprosy, tuberculosis which require prolonged treatment and very expensive organisation, small-pox could be controlled with compartively very little expense to be incurred for vaccination. The only person who could prevent this scourge and protect the public is the general practitioner, as he can play a very important part in detecting cases early. It is only after detection, isolation and other preventive measures could be carried out with effect. The Medical Practitioner is being read by a large number of general practitioners throughout all the provinces in India, and we offer our co-operation to the Public Health authorities for any propaganda to combat small-pox. Unfortunately there does not exist to-day happy cordial feelings between the Public Health Department and the members of the independent medical profession in this country. The Government Departments have not as yet realised the value of the utility of services of the members of the independent medical profession in combating disease. The few of the officials who at times make an appeal to the non-officials for help and co-operation, do so with an official authority attendant with an overdose of red-tapism. Many a time the preventive officer gets out of his bounds and invades the area of curative medicine. He forgets that the private practitioner has to pay for himself for the prevention he has to do. So, there is always an atmosphere either of authority or suspicion which has been hampering the responsibilities of the profession as a whole. It is possible, nay feasible, for paid officers to be less rigid and more accommodating than for a practitioner who has to earn his bread. We appeal to the Public Health authorities to take the independent profession into their confidence and utilise their services as honourable partners in preventing diseases. In the meanwhile let the private practitioners not wait till an appeal comes to them from the health authorities especially during the prevalence of dreadful epidemics such as Small-pox. Heartfelt services rendered in the right spirit will certainly pay them in the long run and is the best advertisement to gain confidence and popularity of the public. Vaccination and re-vaccination are the cheapest and most effective preventive measures in combating small-pox and if only the members of the independent medical profession make up their mind in earnest to prevent small-pox the present pandemic will soon be extinct and we may even hope not to see India suffering from small-pox in the frightful way she is suffering at present.

Misplaced Wisdom: Our readers might remember about our having commented upon the case of one Dr. V. R. Kulkarni who was found guilty by the Bombay Medical Council of "infamous conduct in a professional respect" as he canvassed for a firm of importers of medicines. The same day they sat in judgment over another practitioner Dr. P. V. Tharanee who was charged for carrying on his practice in association with an unqualified

practitioner and Dr. Tharanee was let off with a warning. The case of Dr. Tharanee comes under para 5 of the "warning notice" published by the Bombay Medical Council and the punishment mentioned in that para runs thus: "……will be liable on proof of facts to have his name erased from the Medical Register." The offence committed by Dr. Kulkarni may come under "objectionable practices" for which no specific punishment had been mentioned and yet the Bombay Council thought it fit to erase his name from the register. Bombay has always a good name for practical wisdom but we regret we have to mention that the Bombay Medical Council did misplace the wisdom in these two cases of importance to the medical profession.

A Well-Meaning Protest: We have received protests against the choice of Dr. M. D. Gilder as the President of the annual gathering of the B. J. Medical School, Poona which took place quite recently. We have refrained from publishing them lest such publication should create bad blood. It is said that Dr. Gilder was one of those who were responsible to obstruct the long felt reform with regard to course of studies of the Licentiates from 4 to 5 years. Dr. Gilder occupies a high position as one of the accredited leaders of the Bombay Medical Profession. He is the chief Editor of The Bombay Medical Journal, the official organ of the Bombay Medical Union of which Dr. Gilder was the president till quite recently. So his utterances will have the weight of the position he occupies. He might certainly mean well in expressing his views about the Licentiates and their career. The views expressed by him in the Editorial columns of The Bombay Medical Journal suggesting to the Licentiates to keep away from the All India Medical Register may be also as well meaning as his other utterances about them. But we should say in all fairness to our correspondents that their protests should not be considered otherwise. They could not do better as the Licentiates in Poona might not have had anything to do in the choice of the President for the gathering at the B. J. Medical School.

What next?: The twenty Civil-surgeons, permanent and acting, over whom hangs the sword in the name of retrenchment and who have news that the India Government have finally vetoed the proposal from the Madras Secretariat (we have deliberately avoided to say Madras Government) perhaps in consultation with the Secretary of State for India, are now musing asking within themselves, "what next?" some with their fists closed and others with a sigh. It has also to be said that there are at least one or two amongst them who are as indifferent as they have ever been about this "war-fare".

One more grievance of subsidised Practitioners: It may be remembered that the Madras Government recently ordered the disbursements of subsidies through the District Medical Officers to the rural medical practitioners, which they till then were getting directly from the Taluk Board Presidents. After the introduction of this procedure, there had been complaints about the delay in the disbursements of subsidies. Dr. S. Ramasubbu L. M. & S., Secretary, Madras Provincial Rural Medical Practitioners' Association has sent us a communication on this subject which is published elsewhere in the "Correspondence columns". We draw the attention of the readers as well as that of the Government to this communication as we feel that if the suggestions of Dr. Ramasubbu are given effect to by the Government there cannot be many complaints regarding the new procedure.

Congratulations: Dr. R. S. Dugal, a thriving practitioner belonging to the Licentiates' class, had been unanimously voted by the members of the Rangoon Municipality for the most coveted and honoured position, the Mayor of Rangoon. It is reported that Dr. Dugal is the youngest member of the Rangoon Municipal Council. His activities are not centred in the affairs of the welfare of the Rangoon city only. He has been striving hard to bring into existence in Burma an independent medical profession worthy of its name and for this purpose has recently started a Medical Journal mainly intended for Burma. The fact that Dr. Dugal hails from the Punjab and yet has identified himself with the Burmans, is a circumstance that should be taken into account by all concerned in the welfare of Burma, to judge if separation of this Province from India is needed at all or justifiable. We offer our heart felt congratulations to Dr. Dugal and wish him a long life of usefulness.

In Madras, Dr. A. M. Vaiyapuri Mudaliar, who recently retired from the service of the Madras Corporation and who has been interesting himself in Public Health activities is appointed as Honorary Presidency Magistrate for the City of Madras. We congratulate Dr. Vaiyapuri Mudaliar on his having been honoured and would have been happier if the Government recognised his services equally well in the very sphere of his activities for which Dr. Vaiyapuri Mudaliar was professionally trained.

A warning notice: Messrs. The Havero Trading Co. Ltd. warn the medical profession against the use of contraband Neosalvarsan which an insignificant firm in the Punjab has managed to offer for sale. This contraband ampoule bears the number A 33925 at the bottom of the packing box. It has been ascertained that this consignment left the factory of the manufacturers nearly 20 years ago and on examination found to give a very turbid reddish solution totally unfit and hence dangerous for use. The genuine packings of Neosalvarsan bear the batch-control number in Roman Capitals as VXLM etc. which is on the left hand side of the label on the packing box as well as on the ampoule itself. The genuine Neosalvarsan is further guaranteed by the protective label round the packing with the well-known inscription:

"Specially manufactured for the tropics"
"and packed for British India & Ceylon"
"Imported by Messrs. Havero Trading Co."
"Ltd, Calcutta, Bombay and Madras."

It is expected that the medical profession will guard themselves against this contraband Neosalvarsan which is likely to endanger the life of the patients and mar the reputation of those who use them.

Correspondence, Reports, etc.

Rural Medical Relief.

DISBURSEMENT OF SUBSIDIES.

G. O. No. 1932 P. H. dated 9-9-1932 has been the subject of many a letter to me from subsidised medical practitioners, some altogether protesting against the change in the procedure of disbursement of the subsidy and some pointing out the delay, difficulty and danger involved in realising the amount. One thing I have to say in fairness to myself and the Association. The Association did not suggest the change, though it is a fact, the subject was discussed at the time of the deputation; this was given wide publicity in all the dailies and medical journals. Government hope that the change would very likely lessen the complaints of the practitioners against the Presidents and ensure better supervision by the Government, and it would be too soon to proclaim that the remedy is worse than the disease.

Nevertheless, it is a fact that the changed procedure involves a lot of delay, difficulty and risk too at times in the practitioner realising his subsidy. It appears that the Accountant-General insists upon a pre-audit of the bills before encashment, and usually one gets the bill by about the 17th or the 18th of a month, and is able to cash it only about the 20th, while according to the old procedure one has had it even on the 5th of the month at times. The encashment of the bill is almost a problem. In some cases, the treasury is as far away as 30 miles from the place of the practitioner. Either the practitioner has to go personally to the treasury, if he is to be sure of getting the amount without any mishap, or depend upon an agent, whose reliability on every occasion cannot be certified to unless he returns with the money.

To obviate all these difficulties, I request Government to direct that the District Medical Officer countersigns the bill before the 6th of the month, draws the amount himself from the treasury, and remits it to the practitioner, the charges thereof being incurred from his office contingencies. The extra amount incurred by way of charges will not exceed Rs. 150 a year, but Government will be giving a great relief to the practitioners.

S. RAMASUBBU, L.M. & S.,
Secretary,
Viraganur, 10-2-1933. } The Madras Provincial Rural Medical Practitioners' Association.

The Trichinopoly District Medical Association.

The 4th Inaugural meeting of the above Association was held at 5 p.m. on Sunday the 22nd ultimo in the Government Head Quarter's Hospital Trichinopoly. There was very good audience and Dr. L. K. Neelakantan L.M.S. was "At Home" to the members. Dr. T.S.S. Rajan occupied the chair.

After demonstration of interesting cases by Drs. Rajan and Sarma the chairman introduced the lecturer of the evening Dr. A. Srinivasan M. R. C. P. (London), as a distinguished scholar just returned from England and called upon him to speak on "Honorary Medical Service."

Dr. A. Srinivasan compared the facility of medical relief obtaining in Great Britain and in India and said that while in the former country there was one medical man for every 1000, in India there was not one even for every 5000, of the population. It was to obviate this lack of medical relief that the rural scheme was evolved but the lecturer regretted to note that it was not successful. Introduction of the Honorary Medical System was also in furtherance of this view. He said that there were serious defects in the rules and regulations governing the Honorary System which precluded men of high qualifications and attainments from offering honorary service.

The Lecturer opined that the control of honoraries must not be in the hands of individuals but must rest with committees. He pointed out various discrepencies in the rules and he was also not in favour of graded system in the honorary service. Dr. S. Padmanabha Sarma while agreeing for the control of the Honoraries by a Committee said that there must be different grades of Honoraries according to qualifications and experience of the Honoraries. There was a lively discussion in which Drs. Shastry, Samabasivan, K. R. N. Chary and Ponnusamy took part. In his concluding remarks Dr. T.S.S. Rajan said that if the honorary system was worked in the spirit in which it was evolved and was not impeded by irksome rules there would be more eminent members offering their services as honoraires. Dr. P.A.S. Raghavan, the secretary brought forward a scheme to get the Association registered and proposed a vote of thanks to the President and Lecturer of the evening.

All-India Medical Licentiates' Association.

POONA BRANCH.

Under the auspices of the Poona Branch, a meeting of the medical licentiates in the city was held on Sunday 12th Feb. 1933, in the city municipal hall Vishrambag with Dr. Tendulkar in the chair. There was a large gathering.

At the outset Dr. V. D. Sathaye delivered a lecture on the last Madras Conference. In his lecture he outlined the business transacted at the conference and gave a brief survey of the working of the Association in various provinces. He said that in Madras and in the Northern parts of India the licentiates as a class were better organized and so were able to secure more privileges and held a better position in their practice. He pointed out the immediate necessity for agitating about: 1. Inclusion of Licentiates in the proposed Indian Medical Register on an equal footing. 2. Raising up the course of the licentiates to 5 years all over India, and 3. Appointing the licentiates as Honoraries at the civil hospitals.

As regards work in Bombay the lecturer said that they must carry on an intensive propaganda to get the constitutions of the Bombay Medical Council and the College of Physicians and Surgeons, Bombay radically altered so that the licentiates would get adequate representation on the Managing Council of the latter body. He appealed to the members to organize themselves efficiently in the Bombay presidency. He also said that the next Conference was to be held in Bombay in X-mas 1933, and so a busy programme had to be carried out during the year.

The following resolutions were passed at the meeting:

1. This meeting is of opinion that the present constitution of the Bombay Medical Council is undemocratic and the same should be altered on the following lines.

a. The principle of nominations be stopped forthwith.

b. The present divisions in the Register be abolished and a uniform list of registered medical practitioners be maintained.

c. Elections to the Medical Council be made by general election.

2. This meeting resolves that the Government should define a clear policy regarding Honorary appointments at the civil hospitals and resolves that these appointments should be given on the basis of experience and expert knowledge and possession of mere foreign degrees and diplomas should not be a necessary criterion in making these appointments; this meeting further resolves that members of the licentiate class should be eligible for appointment to these posts.

3. This meeting resolves that the Constitution of the College of Physicians and Surgeons Bombay be radically altered so that the licentiates who form the bulk of the constituents of that body be given full representation in the managing council so that the interests and grievances of this class will be properly attended to.

4. This meeting resolves that Hon. Junior House-appointments at the civil hospitals attached to medical institutions coaching up the Licentiates should be reserved exclusively for this class and an adequate number of these posts should also be given to Licentiates in other non-teaching civil hospitals.

Extracts from the proceedings of the monthly meeting of the A.I.M.L.A, Lyallpur Branch, held at the Civil Hospital, Lyallpur at 1-30 p.m. on Sunday the 29th January, 1933.

(1) Proceedings of the last meeting were read and confirmed.

(2) Resolved that Lyallpur Branch views with great concern and alarm the treatment accorded to Sub-Assistant Surgeons, senior in the cadre, in their being placed on General Duty for an indefinite period, while the juniors are holding charge of Dispensaries, (a) requests the Inspector-General of Civil Hospitals in taking early steps to remove this grievance which is not obtainable in other Government Departments. (b) That the 82 Sub-Assistant Surgeons at the bottom of list be treated as leave reserve and that no Sub-Assistant Surgeons higher on the list should be placed on General Duty except as a penal measure subject to a specified limit to be notified to the individual concerned. (c) That if a departure from the above proposal is to be made in case of an emergency the junior-most incumbent in a district be placed on General Duty. (d) That in case of long leave, order of permanent posting be communicated to the Sub-Assistant Surgeons sufficiently early before the expiry of the leave to save their being placed on General Duty. (e) That in case of appointments, merit, length of service be primarily kept in view, preference being, however, given in case of appointments reserved for men of special training, such as X-ray and Clinical Laboratories.

(3) That the Inspector-General of Civil Hospitals be requested to kindly furnish to

the Secretary of this Branch 2 copies of the Gradation List and circular letters whenever they are issued on payment to keep the Association well-informed.

(4) That the allowances granted for special duties be uniformly termed as compensatory allowances since they are granted to compensate for the loss of private practice.

(5) (a) That this Association views with consternation the endeavour on the part of the India Government to differentiate between higher and lower grades of Medical Practitioners in the proposed Indian Medical Council Bill, which is likely to operate as a set-back to the improvement in the Medical Education of the Licentiates and trusts that the Government would see the wisdom of altering the preamble suitably so as to make the object of the Bill primarily for controlling the standard of Medical Education with a view to maintain a high uniform standard. (b) That this Association considers the argument recently put forward by the Government that "if the Licentiates are brought in the All India Medical Register along with degree-holders the Licentiates would demand a fee of more than Rs. 2/- a visit even in rural areas which the rural population could ill afford to pay" is most preposterous and certainly not worthy of the Government, serving no other purpose than exploiting public opinion against the Licentiates.

(6) That T. A. bill of Dr. Prabh Dyal representative of this Branch for the Madras Conference, amounting to Rs. 124-12 be approved and passed.

(7) That accounts of the Lyallpur Branch up to the 31st December, 1932, as presented by the Secretary be passed.

(8) That the bill of postage expenses for December, 1932 and January, 1933 amounting to Rs. 1-10-6 and Rs. 1-10-3 respectively, and the remuneration for messenger for December 1932 and January 1933 amounting to Rs 2 be approved and passed by the General Secretary for early payment.

(9) That the Annual meeting be held at the Civil Hospital, Lyallpur on the 26th February, 1933.

(10) That copies of Resolutions Nos. 2, 3 and 4 be forwarded to the Inspector General of Civil Hospitals, Punjab, Lahore.

(11) That a copy of Resolution No, 5 be forwarded to—1. The Hon'ble Member of Education, Health and Lands, Government of India, New Delhi. 2. The Hon'ble Sir Abdul Rahim, M.L.A. 3. The Hon'ble Sir Hari Singh Gour, M.L.A. 4. The Hon'ble Sir H. Gidney, M.L.A. 5. Dr. Tej Bhan Dev, Medical Practitioner, Railway Road, Lahore.

Reviews.

THE ADMINISTRATION REPORT OF THE KING EDWARD VII MEMORIAL HOSPITAL AND THE SETH GORDHAN DAS SUNDERDAS MEDICAL COLLEGE, BOMBAY FOR THE YEAR 1931—32.

The report is as usual well written, instructive and interesting. The hospital in which not only medical and surgical cases are treated but also gynaecological, Ophthalmic, Ear, Nose and Throat, Skin and Veneral diseases. Besides, X-ray and Electro-therapy treatment are given and electro cardioagrams taken and Bacteriological and Biochemical work done. The Hospital contains in it all the work done in the General Hospital, Ophthalmic Hospital and Hospital for Women and Children in the city of Madras. The number of both in and out patients shows an increase over that of the last year. The cost of diet per day per in-patient is given as Rs. 0-8-4 while in Madras which is not as costly as Bombay the cost comes to Rs. 0-10-2. The report gives the cost of each in-patient and out-patient under several headings as diet, drug and dressings—stores and linen—heating and lighting, miscellaneous - establishment—repairs to buildings etc. This information is very useful in many ways and it is a pity that in the report of the General Hospital, Madras no such information is available.

The College in which 305 students are undergoing training, 290 for M. B. B. S. and 15 post graduates, costs only 2½ lakhs of Rupees inclusive of hostel charges. Most of the Professors are Honoraries and they not only teach in the college, but some of them are attached to the hospital and some do research work in addition. Researches on the following were conducted in the year under report:—(1) Determination of Haemoglobin in Health and in Anaemias in Bombay, (2) Nutritive Value of Indian Vegetable Foodstuffs, (3) Foetal and Maternal Dystocia in India, (4) A Study of Protozoal Parasites in Vitro and (5) Anthropometric Measurements in Bombay. From this list, it will be evident that the investigations are found to be highly useful not only to the medical profession but to the public at large and have far reaching effects on the economical condition of the country.

We offer our congratulations to the Dean and other officers for the good work done by them.

List of Postings of Sub-Assistant Surgeons for the month of December 1932.

No.	Names of Sub-Asst. Surgeons.	From	To
1	Dr. K. Natarajan	L. F. Dy. Melur	c/o P. D. B. Madura.
2	„ M. Veeraswami Naidu	L. F. Dy. Natham	c/o P. D. B. Madura.
3	„ H. Govinda Gadiyar	L. F. Dy. Andipatti	L. F. Dy. Melur.
4	„ B. Ramanatha Mitra	Leave	c/o C. M. C. Berhampur.
5	„ Vasa Narasimham	Munl. Br. Dy. Berhampur	c/o Civil Surgeon, Vizagapatam
6	„ L. Jaganadha Rao	Leave	Govt. Hd. Qrs. Hl. Nellore.
7	„ S. Ponnuswami Ayyar	Leave	c/o P. D. B. Coimbatore.
8	„ N. P. Subramaniam	L. F. Dy. Sulur	c/o P. D. B. Malabar.
9	„ T. N. Narayana Pillai	L. F. Dy. Kollengode	Govt. Hl. Tellicherry.
10	„ T. C. Anandan	Govt. Hl. Hospet	Govt. Hd. Qrs. Hl. Bellary.
11	„ P. Sanyasi Rao	Govt. Hd. Qrs. Hl. Bellary	Govt. Hl. Hospet.
12	„ A. Krishna Rao	Govt. Hl, Tadpatri	Govt. Hd. Qrs. Hl. Cuddapah.
13	„ M. Narayanan	Govt. Hd. Qrs. Hl. Cuddapah	Govt. Hl. Tadpatri.
14	„ D. Suryanarayana	Leave	L. F. Dy. Yellamanchili.
15	„ D. Madurainayagam	L. F. Dy. Watrap	Govt. Hd. Qrs. Hl. Ramnad.
16	„ A. Pichakuppu Sastri	Govt. Hd. Qrs. Hl, Ramnad	c/o P. D. B. Ramnad.
17	„ K. A. Raghavan	Leave	c/o P. D. B. Chingleput.
18	„ P. S. Vaidyanatha Ayyar	L. F. Dy, Tirukkalikundram	c/o D. M. O. Ganjam.
19	„ V. S. Ganesan	Festival Duty, Tiruvannamalai	c/o C. M. C. Srirangam.
20	„ A. Gopalan Nambiyar	Leave	c/o D. M. O. Coimbatore.
21	„ M. V. Hanumantha Rao	City Police Dy. Madras	Govt. Royapettah Hl.
22	, B. Yerramaraju	Police Hl. Anantapur	Govt. Hd. Qrs. Hl. Anantapur.
23	„ Md. Khan Sahib	Govt. Hd. Qrs. Hl. Anantapur	Police Hl. Anantapur.
24	„ Md. Chirag Ali Sahib	Govt. Dy. Narayanapatam	Govt. Dy. Minicoy Island.
25	„ N. Sundara Rao	L. F. Hl. Gooty	Govt. Hd.Qrs. Hl. Masulipatam
26	„ P. Lakshminarayanamurthi	L F. Dy. Yellamanchili	Govt. Dy. Naryanapatam.
27	„ S. V. Sitaram Rao Naidu	Leave	c/o P. D. B. East Godavari.
28	„ B. Emberumal	L. F. Dy. Biccavole	c/o C. M. C. Cocanada.
29	„ M. Audinarayanaswami	Munl. Br. Dy. Cocanada	Police Hl. Anantapur.
30	„ M. Varantharumperumal	L. F. Dy. Iluppur	Govt. Hd. Qrs. Hl. Trichy.
31	„ P. V. Subba Rao	L. F. Dy. Chagalmari	c/o P. D. B. Kurnool.
32	„ K. S. Rangaswmi	L. F. Dy. Yerrakondapalam	Govt. Dy. Sarangada.
33	„ R. V. Narasimham	Leave	Govt. Hd. Qrs. Hl. Guntur
34	„ J. V. Narasimham	L. F. Dy. Vayalpad	Govt. Hd. Qrs. Hl. Chittoor.
35	„ K. Govindan	Leave	c/o P. D. B. Coimbatore.
36	„ K. Satyanarayana Raju	Leave	L. F. Dy. Ichchapur.
37	„ G Suryanarayana	L. F. Dy. Ichchapur	L. F. Dy. Narasannapet.
38	„ G. V. Appa Rao Nayudu	L. F. Dy. Narasannapet	Govt. Hd. Qrs. Hl. Berhampur.
39	„ A Bhagynatham Pillai	Leave	c/o P. D. B. Ramnad.
40	„ K. Pichu Ayyar	Leave	Govt. Hd. Qrs. Hl. Tanjore.
41	„ P. Kunhiraman Nayar	Leave	Govt. Hd. Qrs. Hl. Tanjore.
42	„ M. Appalaswami	K. G. Hl. Vizagapatam	L. F. Dy. Chodavaram.
43	„ R. M. Patro	L. F. Hl. Chodavaram	Govt. Hl. Anakapalle.
44	„ C. Narayana Menon	Govt. Hl. Cochin	Govt. Hd. Qrs. Hl. Calicut.
45	„ J. Suryaprakasa Rao	Leave	Govt. Hd. Qrs. Hl. Bellary.

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Reminders and Suggestions

PRODUCT	COMPOSITION	INDICATIONS
AMINOBIASE	Amino Acids and Creatinin.	Tuberculosis and all states of denutrition.
BENZO BISMUTH	Sodium Salt of Thioxybismuthobenzoic acid.	Syphilis.
CREOSAL SYRUP	Monoguaiacophosphate of Calcium.	Cough of whatever origin.
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