

The Medical Practitioner

A Monthly Medical Journal

EDITED BY

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AND

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More about this
on page XII



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Further particulars
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From.....M.D. C.M., (Madras.)

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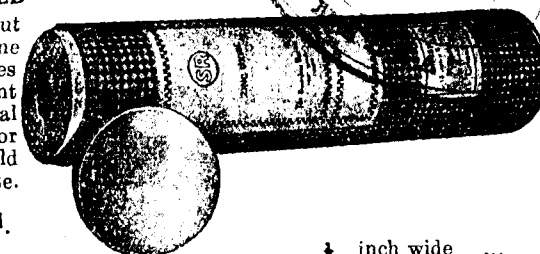
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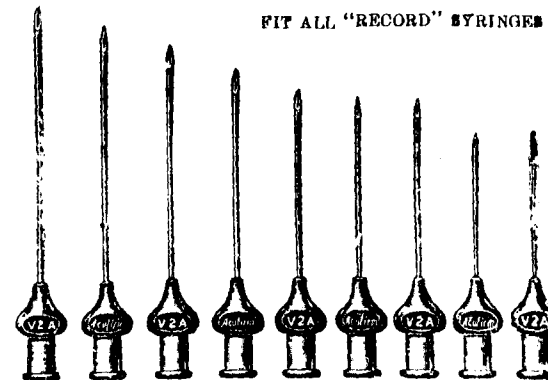
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VOL. V.]

JUNE, 1934.

[NO. 9

PANEL SYSTEM OF MEDICAL RELIEF:

Our readers might remember that some time ago, in the News and Comments Columns, we made mention of a scheme of Medical Relief, which the Karachi Municipal Corporation intend introducing in that city for the benefit of the poor. The drafting of the scheme was entrusted to a special committee of 10 members including the Health Officer of the City and the Committee have submitted their report to the Corporation and it is under the consideration of that body.

The scheme is called the Co-operative (Panel) System of Medical Relief Scheme. The city will be divided into convenient blocks and qualified medical practitioners will be invited to co-operate with the Corporation and a panel of medical men will be formed for each block, it being compulsory that the doctors who desire to serve in the Panel should be residents of the area served by a particular block; the poor who join the scheme are given the choice of selecting their own doctors. The beneficiaries of the scheme have also the privilege of choosing their own doctors outside the area of their residence.

The running expenses of the scheme are to be met by subscription collected from the beneficiaries and only those whose income is Rs. 75 or less are permitted to subscribe for the scheme. The income of a subscriber is reckoned making allowance for those who are the dependants of the

subscriber, at the rate of Rs. 25 for each dependant. For example, a person earning Rs. 100 per month, and who has got two non-earning members in his family is considered to have an income of Rs. 50 only, making an allowance of Rs. 50, to the two dependants and such a person is allowed to join the scheme. There will be two classes of subscribers, A and B, those belonging to A class having to pay a subscription of Rs. 3 per year per head and those belonging to B class having to pay Rupee one per annum. The A class subscribers will not only have the benefit of free consultation at the residence of the doctors, but will be visited also by the doctors free of charge at the residence of the patients. The doctors are not to claim ordinarily, conveyance allowance. But in case the visits are to be made at odd hours or in case the visits are to be made urgently during the working hours, actual cost is to be charged for the conveyance.

The Municipality will maintain centres in convenient places to supply medicines free to those who get the prescriptions from the doctors serving in the locality. The doctors will be supplied all the materials and appliances etc., for treating surgical cases at the residence of the doctors or of the patients. Out of Rs. 3, collected by the Corporation from A class subscribers, the doctor will get Rs. 2-4 per head and annas twelve for each subscriber from B class, from whom the Corporation will collect Re. 1. The maximum number of subscribers allowed to each doctor is 2500.

The Special Committee observe that the proposed new scheme has distinct advantages over the existing medical relief scheme. The people can choose their own doctors in whom they have confidence instead of being forced to be treated by one individual, who is in charge of the existing dispensaries, whether they have confidence in him or not. In case of serious illness, those who join the scheme will have the additional benefit of free visits at home. The doctors who join the scheme, will have the advantage of gaining vast experience, having a very large field of work instead of restricting themselves to the dispensary practice only. The Committee have, by facts and figures, made out that the proposed scheme will cost the corporation very much less and in case the calculations of the committee be realised, the scheme will likely be an earning concern to the corporation.

The Special Committee have considered the question of giving medical relief to the destitutes. They feel that it is possible to persuade the doctors in the Panel to treat a number of destitutes equivalent to 10% of the total number of subscribers entrusted to their care, free, and in case, this does not appeal to the doctors, to make special provision for the treatment of destitutes, with the help of philanthropic persons.

We congratulate the councillors of the Karachi Municipal Corporation, who have been responsible to conceive a scheme of the nature under reference, and trust that the Karachi Corporation would approve the draft and work it out in the near future.

Large amounts of money are at present spent by the Government and local bodies on medical relief which cannot be said to be responsible. Indiscreet free medical aid which is now given at the Government and other charitable institutions, is not a sound policy. Nor is such a policy justifiable both in the interest of the public and the medical profession. Feeding and clothing the destitutes is certainly a more justifiable charge on public funds than free medical relief. Yet no Government in this country has ever taken up

the work of the destitutes. Indiscreet medical aid now in vogue in State Hospitals has been hampering the growth and prosperity of the medi-

cal profession. If the system of medical relief for the poor is carried on the lines of the scheme now before the Karachi Municipal Corporation by the Government and local bodies, the public will get more responsible medical aid and the money that the Government and the local bodies spend on high salaries for a few medical men will be more equitably distributed amongst a large number of members of the medical profession and the people in return could get more efficient and responsible treatment from the doctors who are selected by the patients themselves. The medical men having to depend upon the goodwill of the patients whom they treat would be forced to treat one and all who go to them with greater consideration than that now obtaining at the State and other charitable institutions.

Vested interests in this country are so inter-woven that it may perhaps not be a practical proposition to launch a scheme of the nature under reference either for the Government or for the local bodies in the near or long future. Groups of medical men may join together in large cities and towns and even in rural areas and start such a scheme of public utility and work it out to the mutual advantage of all concerned. We have carefully gone through the figures worked out by the Special Committee of the Karachi Municipal Corporation and find, working on the basis arrived at by that committee, it is quite possible for private bodies to give efficient medical relief to the masses in case those who wish to have medical aid, give at the rate of annas eight per month per head.

It is a shocking irony in this country that though there are not sufficient number of qualified medical practitioners to serve the public, there are at present a large number of qualified medical men without employment. We would suggest that it will be beneficial to the members of the profession as well as to the public, in case they group themselves into healthy units of fraternity, and start poly-clinics in centres where there is a large congregation of poor and middle class people. In each unit the work should be divided in such away that one doctor should be in charge of a special branch of treatment. To start with, the work will certainly be a difficult one. But once it is

started and efficiently worked with a spirit of sacrifice, it is bound to be popular and will successfully solve the huge question of efficient yet cheap medical relief to the masses. Many young men are now coming forward to serve as honoraries in the state hospitals without any honorarium; and it is our experience that many have been disappointed in life. If the time and spirit of service now spent by these young men is utilised under good leadership in private institutions started and maintained by themselves, we trust that there will be more contentment and prosperity amongst the members of the medical profession and less illness and suffering amongst the masses.

Original Articles

OPHTHALMIA NEONATORUM.

VENERAL DISEASES AND THE SEQUELAE OF CORNEAL TRAUMATA AND ACUTE CORNEAL ULCERATIONS NOT INCLUDED UNDER PREVIOUS HEADINGS.

(Continued from the last issue).

By

LT. COL. R. E. WRIGHT, I. M. S.

SMALL POX.

One of the most important diseases giving rise to an acute ulceration of the cornea which frequently results in blindness is small pox. We may well consider it as a preventible disease of childhood because protective vaccination against small-pox is supposed to be carried out in the first year of life, and theoretically we may expect to meet with the more severe forms of rash on the face with associated ulceration of the cornea, in the period before vaccination. This does not quite follow however as some of the children are not vaccinated at all and others are not vaccinated successfully. Of course even the unvaccinated may escape till quite late in life so that the blindness due to small pox is not by any means confined to children or adolescents. It is not possible to estimate the number of persons rendered blind by this affection even in a hospital population. We can only try to get an approximate idea in this way. If we take an average for four years of the number of eyes seen with scars of the cornea which have resulted from ulceration of one sort or another, we

find that the figure is about 806 cases in 20,000 out-patients. This figure is made up of the number of cases diagnosed as nebulae, leucomata, and staphylomata of the cornea. An attempt to analyse these in 1929 showed that of 726 opacities of the cornea (the leucomata and nebulae.) 59 followed small pox; 2 ophthalmia neonatorum; 92 irritant remedies; 68 injuries; 54 ulcers (associated with acute catarrhal conjunctivitis, phlyctenular conjunctivitis etc; 41 trachoma; 18 keratomalacia; 14 syphilis (congenital or acquired); 378 were of unknown origin.

Of 143 anterior staphylomata (bulging corneal scars) 16 followed small pox; Nil ophthalmia neonatorum; 35 irritant remedies; 31 injuries; 2 ulcers (associated with acute catarrhal conjunctivitis, phlyctenular conjunctivitis etc.); Nil trachoma; 6 keratomalacia; Nil syphilis; 53 were of unknown origin.

As pointed out in a previous lecture some cases of leucoma and staphyloma must be taken to swell the numbers of blind due to keratomalacia e. g. 24 in the above statement where the sequence is known, and an uncertain number of the 431 undiagnosed. The difficulty of assessing the responsibility for total blindness is however great and we have to draw on our experience in estimating the importance of the various causes. It may be seen at a glance however that even if the majority of these opacities and staphylomata only partially blind the individual, the position of small pox comes close to injuries and irritant remedies in giving rise to serious damage which may result in loss of sight. In the year analysed 75 patients out of about 20,000 showed that the disease had attacked the eyes, about 3.75 per 1000 of our hospital population. It will be remembered however that about 9 per 1000 were attacked and 3 per 1000 rendered blind or practically blind by keratomalacia. How is it that small pox attacks so many persons severely when successful vaccination at regular intervals protects from the severer forms of the disease? A reference to figures kindly supplied by Col. J. R. D. Webb, I. M. S., Director of Public Health, Madras give a partial answer to the question. They show the percentage of children who escaped vaccination in the Madras Presidency during the first year of age.

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1930-31	...	43.4%
1931-32	...	40.8%
1932-33	...	47%

To quote the Director of Public Health:—

"This shows that a proportion from 37 to 47% of children surviving at one year escape vaccination. This is only a rough approximation for we have no idea of the vaccinal condition of the infantile deaths. In the above figures the assumption has been made that all the infantile deaths were not vaccinated. As vaccination is generally done after the age of six months, we may take it that roughly about a third of these infantile deaths were amongst the vaccinated. Assuming this the percentage of escapes at one year will be still further increased. The number of vaccinations in the years 1-6 is only slightly less than the number of escape at one year calculated as above. The proportion vaccinated varies from 100-80% of the escapes at 1 year. As a rough approximation we may say that 90% of the surviving children get vaccinated by the end of the sixth year. The failure rate varied from 4.1-1.4% of the number of vaccinal operations. We have no statistics to show the number of small pox cases amongst the vaccinated which give rise to pox marks on the face."

I presume we must also assume that the number of those attacked before vaccination who do not die are not recorded in the vaccination operations. A consideration of these facts help to explain why small-pox is responsible for a considerable amount of blindness in spite of an elaborate machinery for preventing the disease.

IRRITANT REMEDIES.

It will be seen from the figures given above that the use of irritant remedies was responsible for 127 cases of severe damage to the eyes in 1929, over 6 per 1000 of our hospital population. Many of these are rendered partially blind; it would be impossible to say how many are totally blinded from this cause, but it is likely to be in the neighbourhood of 2 per 1000 if we take into consideration the probability that the figures for corneal leucomata and staphylomata of unknown origin are more

likely to include a higher proportion of cases due to this cause than for instance to small pox which is more readily eliminated from the unknown origin group. This cause of blindness in children is almost peculiar to the East and we are particularly prone to it in India. The ignorance and superstition which prevails is almost unbelievable in this connection. Not only do village quacks and old women of the family treat all manner of simple eye disease by inserting virulent irritants into the eyes, but they even treat fits and various forms of unconsciousness in children by this means with the idea of directly stimulating the brain. Nothing appears too vicious for these people. Tobacco juice, red hot coals, alum, chillies, the leaf or juice of the plant called in Tamil Erukham, [(Madar) (Hind.), Calotropis gigantea (Bot.)] urine, dung, human milk have all had their adherents as efficacious remedies. A former member of the staff of this hospital, an experienced sub-asst. surgeon Dr. Ekambaram, made an investigation in this connection and succeeded in listing no less than 144 types of irritants which may be put into the eyes for various reasons. The only way to prevent such a state of affairs is to bring home the wrong of such practices to the villagers. We attempt to do this by approaching children and parents by means of posters, lectures, leaflets and other forms of propaganda through the agencies of the medical and educational departments and unofficial organisations like the Red Cross Society. The most effective agent in dispelling ignorance and superstition is the educational department, and the Director of Public Instruction through the machinery under his control had done, and is still doing the chief work in this connection.

INJURIES.

Injuries account for quite a high proportion of the cases of severe corneal damage which may result in partial or total blindness in children. The bulk of these no doubt affect one eye only although there is one very important type of damage which nearly always involves both eyes, I refer to the result of explosive mixtures. We all know how popular crackers, fire works, bombs and so on are on certain festive occasions in India. For the most part the

injuries are sustained by the individual who prepares such explosives, hence this type of damage is not so common in young children. From the figures at our disposal we cannot estimate the proportion of children rendered totally blind by injuries, and the same applies to the damage of undiagnosed ulcers, but it is likely that total blindness in children from such causes is rare.

As seen in the above statement 431 cases of corneal scars and staphylomata of unknown origin were observed in 1929, out of about 20,000 out-patients. The great bulk of these were no doubt in adults and do not come into our purview; of the remainder (those affecting children) the majority were unilateral and not a cause of total blindness; a number were probably due to keratomalacia, ophthalmia neonatorum, irritant remedies and injuries. It is impossible in the absence of an accurate history to say what is the cause of an old corneal scar or at what age it occurred and we cannot do more than depend on our experience in disposing of this group in the way suggested above; even if the assumption is considerably in error, it does not affect the general considerations as to the chief causes of preventible blindness in childhood.

Finally as regards preventing the various types of blindness dealt with in this lecture, we depend on propaganda work almost entirely; there is no legislation. The difficulty of propaganda work may be gauged by the fact that it took me over two years to obtain a few thousand copies of ten different posters from one of our local organisations with public money lying idle which had been earmarked for devotion to such ends.

Routine, continuous and organised effort in the direction of prevention does not attract the average lay worker. It does not bring individual effort into sufficient prominence, nor afford the personal satisfaction and public approval which many a social worker appears to have in view rather than the end towards which the effort is ostensibly directed. It is also much easier to play on the feelings of the public in order to enlist sympathy in the cause of humanity when the damage has been done rather than prevent the damage. To care for the blind is a more popular social virtue than to prevent blindness. It would almost appear that the continuous, effective and unosten-

tious part which every educated citizen ought to play in the prevention of social evils was too dull a role for many of those impetuous spirits whose enthusiasm carries them towards the forefront of the clamour in connection with any popular movement of the moment. They appear to set an example of good work to others, but the others are not infrequently left to carry the baby, sometimes not a very healthy baby. Most of you, my hearers, being medical men and women, will frequently find yourselves in this position, but do not let this disappoint you; continue to preach the gospel of prevention consoling yourselves with the fact that none are so blind as those who will not hear.

(Concluded)

*DEAFNESS.

Etiology, Diagnosis and Prophylaxis By

DR. B. TIRUMAL RAO, L.R.C.P., F.R.C.S.,
D.L.O., F.R.F.P.S.,

Surgeon in charge of Ear, Nose and Throat
Department, King George Hospital,
Vizagapatam.

I must in the first place, sincerely thank the organisers of this conference for having given me an opportunity of reading before you a paper on this memorable occasion, and I deem it a very high honour indeed. On perusing the letter, asking me to read a paper on a subject of my own choice, 'as a specialist in diseases of Ear, Nose and Throat,' I felt, I must confess, some difficulty in the selection of a suitable subject, for the following reasons. I had been myself a general practitioner for a long period of my service. Till just five or six years back, I was as many a member of the provincial service has been, a jack of all trades, when circumstances beyond my control, as so often happens in the affairs of men, had so conspired that I fell a prey to the temptation of exchanging the hard and strenuous, but withal spicy and fascinating life of a general practitioner for the dull and monotonous but none the less exacting role of a specialist in Oto-Rhino-Laryngology. I have been, ever since, a humble votary of this branch of the Healing Art but I am no specialist in it in the sense that I

*Paper read at the Fourth Andhra Medical Conference, Bezvada on 30th March, 1934.

Hypotensyl tablets contain a special hypopiesia principle of the liver.

could claim any special proficiency in it. The period of my probation has yet been so short that it may be hazardous to undertake to offer anything new or original, dealing with its theory or practice, on the slender basis of my limited experience.

Whilst I am conscious of my incapacity of responding in an adequate measure to an invitation so generously extended, it shall not, however be amiss, I venture to think, if I should take up this opportunity of recalling and emphasizing on a problem, the significance of which the average busy medical practitioner, in the hurry and pressure of the multifarious nature of his work, is apt to overlook and pass over, but the gravity of which is brought home to, and realised in no uncertain manner, by the man whose gaze is constantly fixed and whose attention is intensely concentrated on the narrow circumscribed field of his speciality. Approached from this point of view, the task of pitching upon a subject appeared to me far less difficult. On retrospection of my own work, as a general practitioner, I could discover that my knowledge of Otolaryngology was very meagre and scanty. The same was generally the case, I believe, with the medical men of the older generation. This is, of course, to some extent explicable, if we could imagine for a minute the plight of Oto-Rhino-Laryngology in Madras about two decades back, when I was a medical student. At a time when the science of Oto-Rhino-Laryngology elsewhere, having budded off from surgery and having made its position secure, and its title acknowledged as an independent subject, was making rapid advances, no longer content with its activities confined to the limited sphere of Ear, Nose and Throat, but aspiring for a share in the domains of intra-cranial surgery, surgery of the lower air passages, and even of the oesophagus, the General Hospital, Madras, a teaching institution, the prototype of all similar institutions in the Presidency, had been running practically with no special department of its own. And what little there was of Oto-Rhino-Laryngology, in the city as well as in the Province of Madras, was, if I remember right, for a long time identified with and solely represented by a private practitioner the late Dr. T. M. Nair. The result, therefore, was that at the end of the medical course, the

practical and clinical aspect of Otolaryngology was a profound mystery to us, though we might have imbibed a little of its theory from our text books in general medicine and surgery. And it took no time for us to forget the little fragmentary knowledge of theory, for want of a back-ground of its application, when once we passed out of the portals of the Medical College. Later in life service conditions may have played their own part to bring about this consummation. It is no wonder therefore that to us of the older generation, the nature and the causation of deafness was a perfect enigma.

We are all aware of the astounding advances that have taken place in the field of medical activities during the last decade in our own province. Not only the teaching institutions, but even some of the district hospitals, could now boast of separate departments equipped on modern lines and in charge of specialists for the various specialities. The curriculum of medical studies has been so widened that it now comprises in its scope, a course of instruction both theoretical and clinical in most of the important special subjects. We no longer have a single specialist for a whole province but several specialists in Oto-Rhino-Laryngology scattered all over the land. There has been a wider diffusion of knowledge through the press and the platform. Almost every week we hear of a medical conference held here and a clinical meeting there. There has been a laudable increase in the number of medical periodicals published and in the number of original articles contributed. It has to be acknowledged, that the average medical man now-a-days, is certainly more resourceful, better informed, and has a wider outlook. It would be preposterous, therefore, I concede, to form an estimate of his attainments or capabilities by the standard obtaining a decade back.

Despite this marvellous awakening and the remarkable progress in almost every direction, I feel that the frequency of ear diseases has not yet been adequately appreciated, and the problem of deafness has not yet received the earnest attention it deserves, at the hands of the medical profession. If it is of any consolation for us to know that the same indifference is exhibited by the medical profession in one

of the most progressive countries in the world, like the United States of America—and probably all over the world—I shall cite Keeler, who observes "Elaborate searches are made for foci of infection, teeth are pulled out, tonsils enucleated, appendices cut away, yet the running ear, which has very likely been present since early childhood, will be ignored. Attention is accorded it only in those fortunately somewhat rare cases—which progress to labyrinthine and intra-cranial involvement".

There appears to be a general idea even amongst the medical profession, not to speak of the lay public, that deafness is not a serious handicap in life, such as for instance loss of vision is. This belief could only be due to an ignorance and a total inappreciation of the problem. Crow very well describes the appalling human misery which results from a loss of the hearing power, as follows:—"Those most nearly concerned with the maintenance of the hearing function know, only too surely, that deafness is almost the chief of human tragedies, more fearful than blindness, only a little less terrible than insanity..... Loss of sense of hearing which develops last and subserves more than any other sense, the intimate spiritual life, involves a correspondingly more devastating effect on the life and happiness of the victim. The deaf are hungry people, the feast of humour and love, the quick exchange of sympathy which distinguishes life from 'existence' is spread before them in their very sight and they cannot eat thereof."

Granting that deafness is a most unhappy affliction, one may next ask, what is its incidence? Is it so widely prevalent as to demand any serious notice by the medical profession in general?

It has been estimated according to the census of 1930 for the United States of America that there are 57084 deafmutes or 0.456% of the total population, of whom 18,000 are being cared for and educated in the schools for the deaf. The total number of children with defective hearing is about 3 millions, and the total number of the hard of hearing in the general population is about 20 millions. If it is possible to undertake a survey and collect figures for our province, we would find, I am sure, that it is as bad as the United States, if not worse, and we shall be in a better position

to appreciate the gravity and magnitude of the problem. It will also be found on a careful study of its etiology that deafness is in a large measure preventable. Prevention is within the easy reach of the general practitioner and not of the specialist. It is the purpose of this paper, therefore, to show that it is possible to arrive at a diagnosis of deafness accurate enough for practical purposes, by means of a clinical examination requiring only a limited equipment, which should be within the powers of an average medical man to possess and to practise. It should enable one to detect deafness at its very onset, to advise a patient at the proper time as to the measures to be adopted to stem the tide of its further progress and to steer him through the troubled waters of life, infusing cheer and strength, in the hour of falling hope and distress.

Now coming to the subject proper, it is desirable to consider briefly at the outset the working of the mechanism of hearing before proceeding with a discussion of its disorders. The ear is phylogenetically, the youngest, the most delicate and the most complex of all the organs of special sense. It would appear as if nature has kept this precious treasure of a sense organ for safe custody in the rock fortress of the petrous bone. The efforts of man, therefore, for ages to unravel its mysteries proved almost futile and it is only during the last century that the anatomy and physiology of the ear has been clearly understood. It is best, from a clinical standpoint, to regard the organ of hearing as constituting of two distinct parts: (1) the sound conductive apparatus and (2) the sound perceiving apparatus.

(1) The sound conducting apparatus consists of the auricle, the external auditory meatus, the tympanic membrane, the ossicular bridge, with the muscles and ligaments attached thereto, the tympanic cavity in which the ossicles are suspended and the Eustachian tube.

(2) The sound perceiving apparatus consists of, the auditory nerve with its nuclei of origin, trunk, association fibres, cortical nuclei, its terminal fibres in the cochlea and the membranous cochlea itself.

The sound waves are collected by the pinna and deflected into the meatus by the tragus. They are taken up by the tympanic

membrane, which transmits them along the chain of ossicles to the oval window. The mechanism of the middle ear is most helpful for the propagation of sounds of low pitch. High pitched sounds are capable of exciting the organ of Corti, without the aid of the ossicular chain of the tympanic membrane. It is therefore found, that in lesions of the sound conducting mechanism, the acuity of hearing for low tones is diminished, whereas that for the high tones is little altered. The function of the tympanic muscles, the stapedius and the tensor tympani has not yet been settled. They form probably an accommodation apparatus, varying and regulating the tension of the conducting mechanism, according to the requirements of different sound waves and also enable the individual by an effort of will to select and to follow certain sounds amongst a medley of them, in other words, acting as a peripheral mechanism of voluntary listening. It is also believed that the muscles prevent injury to the fine adjustments of the inner ear such as might occur during violent conclusions or rare factions of air in the external auditory meatus.

The Eustachian tube, the drainage channel of the middle ear also equalises the pressure of air on either side of the tympanic membrane, preventing its retraction or bulging out.

The vibrations of sound conveyed to the perilymph at the oval window set up waves of motion in the endo-lymph and the hair cells of the organ of Corti are stimulated. The impulse is next taken up by the endings of the cochlear division of the 8th nerve and transmitted to the auditory centres in the brain. It is also believed that the perception of different tones in the musical scale takes place in different and specific parts of the basilar membrane of the cochlea, that is, the high tones at its base and the low tones at its apex, and so on.

The greater part of the fibres of the auditory nerve of one side cross over, but a fair number of them reach the cortex of the same side, so that destruction of one temporal lobe alone does not affect the power of hearing.

Sound may also be conducted, via the cranial bones to the internal ear; this is known as hearing by bone conduction.

The tests for bone conduction form an important means in differentiating one type of deafness from the other.

Even when the peripheral organ of hearing undergoes destruction it is possible that the auditory centres of the brain could be trained to appreciate sound through impressions received through other channels, chiefly the vision. This is the explanation of lip reading.

It has also to be borne in mind that the power of hearing is essential for the development of speech. The ear may as well be spoken of as part and parcel of the mechanism of speech. A child who happens to lose his power of hearing in early infancy or before the speech habit is well formed, becomes a deaf mute. When this accident occurs later in life, even then the speech suffers in-as-much as the voice assumes a monotonous tone and articulation is indistinct and imperfect.

CLINICAL EXAMINATION.

In investigating a case of deafness, a routine methodical examination is essential. The age, sex and occupation having been noted, an inquiry is made into the previous medical history, the present state of health, and a family history of deafness.

PREVIOUS HISTORY:—Information must be obtained regarding previous acute infectious fevers, intestinal disorders—chronic appendicitis, cholecystitis, chronic constipation—genito-urinary diseases, blood pressure, dental troubles, ear pain or discharge, neuralgia, frequent attacks of colds and sore throats.

PRESENT HISTORY:—We find out the duration and mode of onset, presence of pain, tinnitus, discharge from the ear, vertigo, vomiting, whether the deafness has been progressive, intermittent or stationary and if it is affected by atmospheric changes, overwork or mental worry.

GENERAL EXAMINATION:—It should be directed to find out the presence of any signs of toxæmia, anaemia, dyspnoea, mouth breathing, adenoid-facies, configuration of nose, and chest, and facial paralysis. The state of the teeth and gums and of the nasal accessory sinuses, the presence of adenoids and post-nasal discharge should be noted down.

THE CONDITION OF THE EAR:—is next investigated.

EXTERNAL AUDITORY MEATUS:—Presence of cerumen or discharge, any swelling, stricture or atresia of the meatus are looked for. A sensation of dryness of the meatus is complained of, in chronic progressive deafness due to diminished secretion of cerumen.

TYMPANIC MEMBRANE:—It is a great advantage to examine the drum head, with the aid of a Siegle's speculum by means of reflected light. Any alteration in its colour is noted. Its landmarks—the short process and the handle of malleus, the cone of light, and the anterior and posterior folds—are identified. Retraction or bulging, unusual thinness or thickness, exaggerated or limited mobility, areas of atrophy, patches of calcification, scars, perforations, polypus or granulations and destruction of ossicles, if present, are recorded. A pinkish tinge is seen through the tympanic membrane due to the presence of congestion of the mucosa over the promontary in Otosclerosis.

THE CONDITION OF THE EUSTACHIAN TUBE is determined by means of inflation with the Eustachian catheter or the Politzer's bag. Its potency and the presence of an exudate in the middle ear are noted. The next step is to proceed to the *acoustic examination*. To estimate the degree of deafness, testing by the ordinary *conversational voice* or *whisper* is the most important. A room as large and as silent as possible should be selected. Each ear must be tested separately. The patient is asked to repeat numbers, words or sentences pronounced by the examiner, and the distance at which he is able to hear is noted down. Hearing for whisper is more affected than hearing for voice in nerve lesions.

THE WATCH TEST:—The same watch should always be used, for this test to be of any value. Hearing for the watch is affected early in nerve deafness. If the tick of a watch placed in contact with the mastoid process be heard, it can be put down roughly, that it is not a case of nerve lesion.

THE TUNING FORKS TESTS:—By means of the tuning fork tests, it is determined, if the deafness is due to a lesion in the sound conducting apparatus, or sound perceiving apparatus.

The power of hearing in man has a range of 16 to 22000 double vibrations per second. But the average range of human voice is only from 200 to 3000 D. V. per second. It would therefore suffice for a routine examination to have forks of 32, 64, 256, 512 and 4096 D. V.

The following six tests are usually employed:—

(1) **TEST FOR AIR CONDUCTION.**—A medium pitched tuning fork—256 D. V.—is selected for determining the acuity of hearing by air conduction. The vibrating prongs of a tuning fork are held close to the meatus, and any decrease in the duration of time it is heard, is noted, as compared with normal.

(2) **TEST FOR BONE CONDUCTION.**—To test the acuity of hearing by bone conduction, the end of the shaft of the same fork, setting it in vibration, is placed firmly over the mastoid and any decrease or increase in the duration is similarly recorded.

(3) **RINNE'S OR THE RELATIVE AIR AND BONE CONDUCTION TEST.**—A vibrating medium pitched T. F. is held alternately in the manner described above for testing for air conduction and then for bone conduction, constantly changing it from one position to the other. Normally hearing by air conduction is for some time longer than by bone conduction. This is expressed as "*Positive Rinne*." If this relation is reversed, as is observed in a lesion of sound conducting apparatus, the result is noted down as "*Negative Rinne*." In cases of lesions of perceptive mechanism, Rinne remains positive.

(4) **WEBER'S TEST OR THE LATERALISATION TEST.**—A vibrating medium pitched T. F. is placed in the middle line of the head. Normally it should be heard equally in either ear. If one ear is affected with conductive deafness, the fork is better heard in that ear. If it is a case of perceptive deafness the fork is heard better in the unaffected ear.

(5) **THE LOW TONE LIMIT.**—The power of hearing for low pitched forks commencing from 16 D. V. is tested by air conduction and the limit at which the ear begins to pick up the sound, is noted. Loss of hearing for low tones is characteristic of conductive deafness.

(6) **THE UPPER TONE LIMIT.**—It is determined by the Galton's whistle or the mono-

cord. If a T. F. of 4096 D. V. is not heard, it indicates a fairly advanced case of perceptive deafness.

It is noticed that with a single medium pitched T. F. it is possible to do most of the important tests.

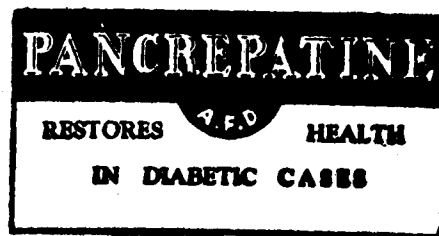
To recapitulate, the results of the tests may be classified into two types as follows:—

- (1) Conductive deafness.—in which,
Weber's test is lateralised to the affected side.
Rinne's test is negative.
Lower tone limit is raised.
Upper tone limit is normal;
and bone conduction is not altered, or may be apparently increased.
- (2) Perceptive deafness.—in which,
Weber's test is lateralised towards the sound ear.
Rinne's test is positive.
Lower tone limit is normal.
Upper tone limit is depressed;
and bone conduction is less than normal.

Having determined by means of these various tests, whether it is a defect of the sound conducting or sound perceiving apparatus, it is attempted to find out the actual site of the lesion and the etiological factor or factors responsible, with the help of the data already obtained from the history given and from the general clinical and otoscopic examination.

In some cases, it may be necessary to call for an examination of blood for Wassermann, haemoglobin estimate and haemocytic count. The presence of gout, rheumatism, leukaemia and other constitutional disorders may also need investigation into.

(To be continued.)



Hypotensyl tablets reduce Diastolic Hypertension.

Abstracts

WHAT EVERYONE SHOULD KNOW ABOUT CANCER.

By

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The mortality of cancer is appalling. In adults after the age of forty, cancer is one of the most frequent causes of death. Now that tuberculosis has, to a certain extent, been controlled, some statisticians claim that cancer is the more frequent cause of death in people over forty. We can safely say that, if the public is educated in regard to the facts about cancer, its annual mortality will be reduced at least one-half, perhaps two-thirds.

Fear the beginning and not the end of cancer. In all forms of cancer, fear of the disease comes too late. Fear at the first suspicious sign will be of great value. This fear will induce patients to seek advice and treatment in that early stage, in which the chances of a cure are best, even up to one hundred percent.

Pain is a late symptom in external cancer. In cancer of the skin, lip, tongue, and regions beneath the skin, such as in the breast, thyroid gland and muscles, pain usually comes late, so if one waits for pain, one often waits too long.

The first warnings of cancer do not differ from the warnings of diseases that are not cancer. This is an unfortunate state of affairs. Everyone, therefore, must be educated about these warnings, for this is the time to seek the advice of the medical profession. This is the most opportune time for the examination which will lead to the diagnosis. This is the most opportune time for treatment which will promise the best results with the least danger.

NEVER IN HEALTHY SPOT.

Cancer never begins in a healthy spot. In external cancer the warning is always something; first, to be seen with the eye or felt with the finger. These first signs are warts, moles, little areas covered with a

scab, or an unhealed wound, or there may be a little lump or nodule beneath the skin or deeper. Pain is rarely present.

Unfortunately many people have frequently observed all of these things, which have either disappeared or remained unchanged for years. They remember these cases, but do not realize the great number of unfortunates in whom cancer has developed from such apparent skin defects or nodules beneath the skin.

It may be truthfully stated that external cancer is a disease which develops under ignorance, scepticism or procrastination, because of entirely needless fear of an operation.

It is not for the patient, but for the physician, to decide whether these visible and palpable abnormalities are to be left alone or removed. In this stage, the removal of the defect always accomplishes a cure, and sometimes it can be healed without removal.

CANCER OF THE UTERUS: There is every reason to believe that cancer of the uterus could be placed among preventable diseases. There is always a discharge of a different character, at a different time and for a longer period than normal. Most women have heard of cases, in which such things have been observed and no dangerous disease has developed, and they are not impressed with the few in which such symptoms were the warnings of a cancer which developed later. Every woman should be educated never to conceal such symptoms, but immediately to seek the physician's advice.

CANCER OF THE BREAST: In a woman over twenty-five, the finding of a lump in the breast should be considered a definite warning. If this lump is subject to treatment at once, the chances are fifty percent that it is not cancer. In such a fortunate event, it is only necessary to remove the lump. When the surgeon at his operation finds that the lump is cancer, the chances are one out of four that it is the least malignant form of cancer, in which the probabilities of a cure are one hundred percent. If the lump proves to be a more malignant form of cancer the probabilities of a cure are, at the worst, eighty five-percent. There is sufficient evidence to indicate that this can be greatly improved.

When the woman delays, the chances of a lump becoming malignant increases with each week's delay. The same operation for cancer in the late stage reduced the probability of a cure in the least malignant form of cancer from one hundred to sixty-four percent, and in the more malignant types from eighty-five to thirty-three percent.

Unfortunately, women remember those lumps which have been present a long time and in which cancer has not developed. They also may know of lumps which have disappeared. What they should know and remember is that delay to seek advice and treatment is gambling with death.

CANCER OF THE LIP AND TONGUE: Every man is warned in time; there is always first to be seen and felt, on the lower lip or on the tongue, some abnormal defect. This defect is often a burn from smoking or an irritation from ragged teeth. When men heed this warning and receive treatment within a few weeks, the probabilities of a cure are one hundred percent.

IRRITATION AND CANCER: Any irritation of the little skin defects, or injury to a nodule beneath the skin increases the probability of the development of cancer or, if cancer is already present, of its more rapid growth. No one should treat such apparently innocent lesions himself, but immediately consult a physician.

CANCER OF BONE: The early warnings here are obscure. If anyone receives an injury to bone and the swelling and discomfort do not disappear in a few weeks, the physician's advice should be sought and an X-ray examination made. The experience of pain or discomfort in the region of any bone should be looked upon as a warning for an immediate examination and an X-ray study.

CANCER OF THE STOMACH AND COLON: The problem of early recognition of internal cancer is a very difficult one, because there are no very definite signs. One, however, is always warned by a feeling of discomfort and some sensation never before experienced, and this is usually associated with what is called "indigestion." But such symptoms are so frequent, in so many individuals in whom no serious disease develops, that the majority do not know that these sensations may be the first warning of internal cancer.

The finding of blood in the stools or in the urine should be looked upon as a definite warning.

The recognition of the earliest stage of conditions that may lead to cancer, or of cancer itself, indicates a treatment which, in the majority of cases, accomplishes a permanent cure.

In cancer of the skin, lip and tongue, the operation, in this earliest stage should accomplish a cure in one hundred percent of cases. The operation is a simple one; it can usually be performed under local anaesthesia. There is no danger nor mutilation.

The operation for cancer of the breast is neither serious nor dangerous, nor is the operation for cancer of the uterus. Few people realize that operations for cancer of the stomach, colon, and kidney are by no means dangerous. The failure to cure is due to delay not surgery.

People, however, cannot be treated unless they seek advice and, as a rule, they do not seek advice in this earliest stage unless they are educated to do so. Therefore, the price of protection is the education of the public and the better education of the physician.

The education of the people seems a difficult problem. They cannot be taught a great deal at once. Too much fear must not be excited, or the timid will turn their heads away as the ostrich places his head in the sand to protect himself from impending danger.

It seems unnecessary to present the gruesome, hopeless, agonizing side of cancer, but the people must be taught about the simple, apparently innocent beginnings which may be cancer. The people must be told that treatment in this earliest stage is devoid of danger, gives little or no discomfort, and that even those operations which they may consider expensive involve a minimum risk and disability.

The message is so simple that most people will be disappointed when they learn how cancer is to be controlled. No miracle is needed, unless the education of millions at a time may be considered miraculous. If one is to have an operation, one may as well submit to it when it is least

dangerous and offers the greatest probability of a cure.

Bernard Shaw, in "Doctor's Dilemma," claims that most doctors practise medicine as patients wish them to, or, in other words, do that which the patients themselves think is best, rather than what the physician knows is best for the patient.

There is no doubt that, until recently the majority of people, when ill, wished immediate relief and strenuously objected to any annual preliminary examination. The briefer the examinations the better the impression the physician made. Those who wish protection from cancer, or from any serious disease, must submit to a thorough examination before treatment.

DIAGNOSIS NOT EASY.

The easier the diagnosis, the worse the prognosis. The "snap" diagnosis or a diagnosis made on a superficial examination, if correct, simply means that the disease is in such a late and hopeless stage that its nature is written in capital letters on the surface of the body. For it is in the beginning of most diseases that the diagnosis is most difficult and can be made only after a most painstaking examination, often only with the help of instruments of precision and laboratory investigations.

It is more difficult to prove absolutely that there is nothing the matter with an individual, or to recognize the disease in its earliest stages, than to make a diagnosis in the later and usually more unfavourable or hopeless stage of the disease.

Medicine which relieves pain may be harmful. Remember that medicine which relieves pain does not, as a rule, have any effect upon the disease itself; it simply produces a period of freedom from discomfort, and by so doing delays the best time for treatment. This is the secret of most quack medicine and so-called "sure cure" medicines. This is also the secret of most drugs obtained from a physician without a thorough examination.

There is always an interval between the first warning and the development of cancer. There is always an interval between the development of cancer and its spread from that spot. In a few instances the interval may be only a few weeks; in others,

months; in many, years. No one can tell this interval. Delay, therefore, is gambling with death. Remember, no harm can be done by the earliest recognition and treatment. The result is never influenced by such dispatch, except for the better.

The cure of cancer, therefore, at the present time, is not a drug, nor a serum, nor a ray, nor a miracle, but simply the education of the people as to the signs of its beginning in local lesions and the importance of an immediate examination, which will lead to recognition and treatment in the most favourable stages for a cure.

If a few can be educated, why not millions? The investigation in the Surgical Pathological Laboratory of the Johns Hopkins Hospital and University has demonstrated that the local propaganda of education has had tremendous influence for good. When the people begin to realize that the majority of the 75,000 and more who die annually of cancer are the adult, vigorous, healthy bread earners and family rearers of this land, they too will begin to appreciate the economic value of this propaganda of education.

The mother is most apt to get cancer of the uterus, and she should be educated as to the proper examination and treatment. It is usually the healthy woman who gets cancer of the breast. It is the vigorous man over forty who gets cancer of the lip, tongue and stomach. Most people in whom cancer begins are absolutely healthy. The majority of those who die from it have been valuable to their families and to the community.

The economic value of the control of cancer may be greater than of the control of tuberculosis, as the individual protected or cured from cancer is never handicapped. Cancer is never brought about by previous debilitating diseases. We are, therefore, protecting the strongest and most essential members of the race.

Philanthropists have given much for the laboratory investigations on the etiology of cancer and the study of cancer in animals. They should see how much more good their gifts would do if given to this propaganda. The American Society for the Control of Cancer, which has behind it all the best medical and surgical associations of the United States and Canada, is educating the public, through the press, on the prevalence, nature and control of cancer.

Clinical Medicine and Surgery March, 34.

Notes on Therapeutics, Diagnosis and other Medical Subjects.

Does Insulin Cure?

An interesting discussion of this point is given by Leyton (Lancet, II, 120, 1933), who believes that insulin will cure diabetes mellitus if given in adequate doses. An adequate dose of insulin rests the pancreas. The dose of insulin will depend on the diet prescribed. In the majority of adults the acceptable diet is found to contain more than 150 gm. of carbohydrate, and the amount of protein and fat differs greatly in different people. The lower the sugar content of the blood can be kept, the greater the chance of the patient making a recovery. The idiosyncrasy of the patient has to be taken into consideration. The ideal is to arrange doses of food and insulin to keep the sugar content of the blood between 0.08 and 0.15 per cent, throughout the twenty-four hours. In severe cases on a diet fairly rich in carbohydrate this may necessitate three or even four injections of insulin in the twenty-four hours for a time; it is the exception for more than two to be needed for longer than six months. The interval between the injection of insulin and the meal must be determined by trial in each case. After a meal rich in carbohydrates the sugar contents of the blood will tend to rise, and if the dose of insulin is sufficient to prevent this exceeding 0.15 per cent., there is considerable probability that between three and four hours after the injection the sugar in the blood will fall low enough to cause symptoms. This is prevented by the patient taking a small amount of carbohydrate in a form that is easily assimilated, about two and a half hours after the injection of insulin. The quantity must be determined by trial. Insulin may be hampered in its action by the patient taking substances that stimulate the cells of the islands of Langerhans to secrete; the most important of these is alcohol. Toxins elaborated by viruses or micro-organisms may retard recovery.

The Journal of Clinical Research, April, 1934.

Treatment of Pernicious Anaemia.

A. Norgaard has investigated the reaction to treatment of patients suffering from Pernicious Anaemia and coming under the sickness insurance scheme in Denmark. During the past 5 years there have been 174 such patients. In January 1933, information was obtained as to the response to treatment of 159 cases. An analysis of the results of treatment in relation to dosage showed that, in the past, an insufficient quantity of liver has been given, and that stomach preparations are more potent than the equivalent dose of liver preparations. The inadequacy of dosage in the past may be traced to the tendency to let the haemoglobin findings and the immediate euphoria experienced by the patient be guides to dosage. Another factor favouring too timid a dosage is the cost of treatment. Norgaard concludes that, at present, there is no guarantee that the modern treatment of pernicious anaemia will effect a cure or continue indefinitely to be beneficial even if large doses of liver or stomach are given, however unquestionable the specificity of their action may be.

(*Ugeskrift for Laeger*, July, 1933.
B.M.J., Dec. 2, 1933).

Prevention of Colds and Influenza.

A. Von Hala'sz recommends continued administration of Iodine in small daily dose (1/56 to 1/12 grain) as a prophylactic against catarrh and influenza. He has found that when persons who have been in contact with cases of influenza use everyday as mouthwash, gargle and nasal douche a weak solution of Iodine—one drop of Tr. Iodii in a tumblerful of warm water—this will abort an attack of flu or of a catarrh when used in conjunction with the internal administration of Iodine. All "contacts" should inhale Iodine vapour and take 4 grain doses of Quinine Sulph. as a prophylactic. The vapour of weak solution of Iodine is more efficacious than that of stronger solutions because the nasal mucosa is extremely sensitive, and, when over-stimulated, pours out an abundant secretion that washes away the traces of Iodine. During the first few hours after the onset of influenzal symptoms the author prescribes

7½ to 15 grains of quinine Sulphate in order to prevent the further development of the disease. These precautions are, he states, simple and harmless. He has not observed any symptoms of iodism in his patients.

(*Munich Med. Woch.*, Oct. 1933.
B.M.J., Dec. 1933.)

Pain in the Right Iliac Fossa.

Mr. Kobro who records 20 illustrative cases in patients aged from 17 to 52, states that pain in the right iliac fossa, named primary chronic appendicitis, cannot be explained entirely by anatomical examination, as it is frequently found that there is a discordance between the degree of lymphocytic infiltration in the appendix and the patients' symptoms. In 219 patients with such indefinite pains the commonest complaints were dyspepsia, constipation, dysuria, dysmenorrhoea and bradycardia. Twenty others presenting these symptoms, also showed intermittent claudication, respiratory arrhythmia, a positive oculo-cardiac reflex, vasolability and hyperidrosis, symptoms suggesting disturbance of the vegetative nervous system, especially vagotonus. As investigations showed that these vagotonic symptoms persisted long after removal of the appendix, it is possible that it is not always appendicitis but vagotonus which is the principal factor in the disease. He states that the cause of the pain is to be found in intestinal spasms in the right lower abdominal quadrant.

(*Norsk. Mag-f-Losgevid*, August 1933.)

**ARSENO-
SOLVENT.**
A Painter's Solvent
for Sulfarsenol

CLINICAL NOTES AND PRACTICAL SUGGESTIONS. Stimulating the debilitated.

One of the vexing problems with which the general practitioner is confronted with is that of prescribing an effective tonic containing arsenic and phosphorus in a non-toxic and a stable form. Many tonics containing both of these are available to the profession but it may be stated unequivocally that the arsenic in these retains its toxicity or that phosphorus may not be in an assimilable form. The practitioner therefore who prescribed these is not sure that the tonics which are usually taken for some length of time may not be quite safe and may not retain their full activity and therapeutic efficacy after some time. In view of these facts the employment of Histogenol Naline will not only ensure accurate and adequate quantities of arsenic and phosphorus to the patient but will eliminate all the disadvantages that follow the use of these in other tonics.

Histogenol Naline presents an elegant preparation containing organic compounds of arsenic and phosphorus with Nuclein.

Arsenic as also phosphorus in this preparation is in a readily assimilable and vitalised form as can be seen from the following:

ARSENIC: This is presented in Histogenol in a stable form due to the special process employed. It is more assimilable than any other form of arsenic as is found from experiments on animals. Its action is more rapid and energetic.

PHOSPHORUS: This is found in Histogenol in a special organic form. This plays the most important part in toning the organism as it is essential for the maintenance of the process of metabolism. It not only helps the nutritive exchanges but helps to free the blood from its poisons and to retard the destruction of the corpuscles. It also helps to strengthen the brain, the nervous system and other vital organs. It improves the condition of the bones also.

NUCLEIN: This forms a valuable auxiliary in the composition of Histogenol. It is standardised on the basis of its organically contained phosphorus. It favours leucocy-

tosis and thus increases the germicidal power of the blood and the resistance of the organism.

By the simultaneous administration of all these not only the effect and action of each is reinforced, but that of arsenic appears to be considerably enhanced. Due to this reciprocal action the improvement in the patient is more striking. While arsenic increases the number of red blood corpuscles and acts to a certain extent as a catalyser, the phosphorus compound acts as a reconstructive nerve tonic. Histogenol due to this combination promotes metabolism, increases the appetite, aids digestion and awakens the sluggish nervous system. Because of the phosphorus content of Histogenol being in a special organic form, it is believed to have an important influence on nutrition particularly of the nervous system. Histogenol contains arsenic which is a general tonic and alterative and phosphorus which gives tone to the nervous system and which helps to overcome muscular fatigue. The combination is in such proportion and form that it is readily available for absorption into the human system. Histogenol is unusually prompt in its beneficial influence. It is essentially a tonic achieving permanent results and not a mere temporary stimulant.

Turning to the clinical uses it has been proved conclusively that Histogenol effectively modifies the tuberculous diathesis because it is one of the best means by which vitality and resistance of the organism can be raised. Because of its stimulating action on the general nutrition and assimilation it is a powerful restorative. Increased vitality and resistance is the surest defence against the infection.

Histogenol is of considerable value in Lymphatism, Scrofula and other affections which result from these diatheses. All forms of adenopathies, which are common amongst children and which resist other forms of treatment, can be judiciously and effectively overcome by Histogenol Naline.

Due to the non-toxic and organic form of arsenic Histogenol ensures good results if the treatment is sufficiently prolonged in recurrent bronchitis.

Histogenol is an excellent therapeutic adjuvant to the treatment of anaemia either primary or secondary. It supplies the

A Doctor writes: "I have used Sulfarsenol in ten cases of acute and chronic Gonorrhoea and find it of immense value in curing the same."

necessary quantity of assimilable arsenic and phosphorus, which besides increasing the red-blood-corpuscles and stimulating the nervous system revitalises the whole organism. Further, the nuclein in Histogenol facilitates oxidation and favours phagocytosis. Thus it contributes in a great measure to the improvement of anaemic patients.

Histogenol is strongly recommended as a good restorative after debilitating illnesses. It is much superior to ordinary iron and quinine tonics in convalescent cases as it soon produces a sense of returning vitality and a healthy desire for food. It is therefore a general tonic of great value in debilitating conditions resulting from acute illnesses.

In rickets and defective growth Histogenol can be prescribed with confidence as it contains phosphorus in a special organic form. This improves the condition of the bones and it is effective as a formative stimulant of the osteogenic tissues.

In cases of debility and exhaustion of the nervous system Histogenol is held in high esteem as a reconstructive nerve tonic. By restoring normal metabolism it stimulates appetite and digestion. It also gives the necessary stimulus to the flagging nervous system without leading in any way to the dependence upon the remedy for any length of time.

In various ill-defined conditions characterised by debility, asthenia and mental depression considerable benefit can be obtained by the regular use of Histogenol. It compensates for the excessive elimination of phosphorus from the organism and corrects faulty nutrition.

Histogenol in short is indicated as a tonic in cases where it is necessary to revitalise the natural defences of the organism. By its use the metabolic process is promptly stimulated, muscular energy is restored and the nerves are calmed and strengthened.

Histogenol is recognised by the medical profession as a reconstructive tonic of a very high order. Where other arsenic preparations fail owing either to deficient action or intolerance Histogenol will be

successful. This is due to its excellent resorption and exceptionally good toleration by the gastro-intestinal canal. This is because the arsenic contained in Histogenol is undoubtedly in a resorbable organic form. With regard to toleration it is superior to other similar preparations more especially in children, who are liable to suffer from gastric symptoms. Histogenol does not occasion any digestive disturbances even after prolonged administration. It is preferred to all older inorganic arsenic preparations which have a tendency to provoke gastric disturbances.

We can conclude our observations thus.

1. Histogenol is of advantage in cases in which arsenic and phosphorus is indicated and which call for protracted treatment. No serious by-effects need be feared.

2. It does not cause nausea or intolerance and it maintains its full potency unchanged for a number of years.

3. Its ready absorption and its excellent effect on nutrition within a short time is a great feature in its favour.

4. It can be given either orally or by injections without any untoward symptoms appearing even if it is administered over a long period.

Opocria Heper in Pernicious Anaemia.

Although Pernicious Anaemia was clinically recognised as far back as 1855 its etiology has not yet been defined. The different causative factors such as absorption of toxins due to gastro-intestinal infection and the presence of specific micro-organism or a septic focus are all under dispute. It is a matter of great satisfaction however, that modern methods have facilitated adequate and almost specific treatment of the disease which formerly was considered incurable.

This Addison's anaemia, as it was known in early days, is very difficult to diagnose in its early stages except by the laboratory methods on account of the protean character of the symptoms. The nervous, the gastro-intestinal and the haematopoietic

systems of the patient participate in the development of the pathological process and this makes the diagnosis very perplexing.

SYMPTOMS: Before the disease fully develops there is achlorhydria and subacute combined degeneration of the spinal cord. However when the degenerative changes in the blood become pronounced the subjective symptoms become more marked and characteristic and it is at this stage that the patient is forced to seek medical aid. General weakness, fever, haemic murmur, languor, anorexia, low blood-pressure and dyspnoea are common in fairly advanced cases. It is very rare to find the patient losing his body fat. The lemon yellow tint of these patients is due to the circulation of bilirubin in the blood-serum. The tongue is usually sore. The papillae disappear and the rugae of the lingual mucosa are present only here and there, thus giving them a glistening atrophic appearance.

It is now evident that Achlorhydria is a constant preceding symptom of Pernicious Anaemia. The nervous manifestations at times precede the development of anaemia which makes the diagnosis very difficult. The pathological process involves the posterior and lateral columns of the spinal cord either separately or jointly. As a result various symptoms of diverse type such as paraesthesia numbness and tingling in the extremities are present in a great majority of cases. These symptoms are very annoying and may persist even after effective treatment.

As soon as we find that there is achlorhydria, general weakness, tingling and numbness of the extremities, sore tongue, pallor and peculiar yellowish tinge of the skin, blood examination of the patient should on no account be delayed. If Pernicious Anaemia is present the blood will reveal many interesting and instructive changes, which will confirm our tentative diagnosis of the disease. There is usually a diminution in the number of erythrocytes, as much as 5 to 7 lacs per cubic millimetre i. e. less than one fifth of the normal. The colour index is high which means that the percentage of haemoglobin in each corpuscle is increased although the total haemoglobin is much diminished. There is pronounced alteration

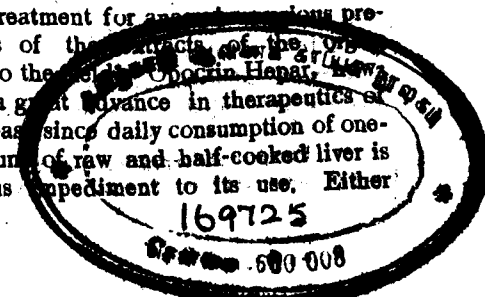
in the appearance of the red cells. They vary in size and are distorted in appearance as a result of which either megalocytes or microcytes are present in considerable number. Nucleated red corpuscles such as megaloblasts and normoblasts are also present. The blood platelets and leucocytes are greatly reduced in number. A small percentage of reticulocytes (1 to 2%) are present which demonstrates an effort on the part of the bone-marrow towards erythropoiesis.

Pernicious Anaemia stimulates many other diseases in which anaemia is the predominant symptom. The only distinctive feature which is absent in these diseases and which is invariably present in Pernicious Anaemia is the presence of persistent achlorhydria and subacute combined degeneration of the spinal cord. In Sprue this type of anaemia is usually present and then residence in tropical regions, light clay-coloured stools of diarrhoeic type and emaciation are salient features which differentiate this disease from Pernicious Anaemia. Another affection which may be confounded with this one is infestation by *Dibothriocephalus Latius* which gives rise to a severe type of Secondary Anaemia. Isolation of the ova and segments of the worm from the stools makes the diagnosis quite clear.

Severe Secondary Anaemia following haemorrhage of gastric carcinoma, acute or chronic infection etc., presents a blood picture similar to that of Pernicious Anaemia, but the demonstrable exciting causes and several differential points distinguish the former from the latter.

As regards the treatment, the introduction of liver in the therapy of this disease has greatly changed our whole outlook about this disease. Pernicious Anaemia which was hitherto considered as an incurable and fatal disease can at present be effectively controlled, and liver today is rightly held as a specific because of the curative effects it exercises in Pernicious Anaemia.

When liver was discovered as the specific treatment for pernicious anaemia, preparations of the extract of the liver came into the market. *Opocria Heper*, however, is a great advance in therapeutics of this disease since daily consumption of one-half pound of raw and half-cooked liver is a serious impediment to its use. Either



Opocrin Hepar or the ampoule of the same preparation provides a convenient and palatable method of effective liver treatment. The preparation, both the Opocrins and the ampoules, is in a highly purified state. After the administration of this product for two weeks, specially the ampoules, great clinical improvement becomes obvious. Changes in the blood are observed at the end of this period and they consist of a definite rise in the percentage of reticulocytes and in total number of red blood cells. The earliest response is an increase in the reticulocytes circulating in the blood, which means that the bone-marrow is delivering new young red cells. The rise in reticulocytes is invariably followed by increase in red blood cells and in hemoglobin concentration. These results are seen four weeks after the treatment and this progress continues steadily until the normal blood-picture is restored in about two more months' time. The characteristic features observed in red cells in Pernicious Anaemia are no longer seen and their morphological appearance becomes normal. The colour-index which is greater than one at the commencement of the treatment soon falls to one or less than one when the red cell count increases.

Simultaneously with the increase of reticulocytes other blood elements derived from the bone-marrow steadily progress until the circulating white blood corpuscles reach the normal standard or in some cases even above normal. With the increase of white cells, the blood platelets show also an increase and rapidly approach the normal.

There is at the same time rapid improvement in the general condition of the patient. When the red blood corpuscles become normal both as regards quality and quantity the symptoms of anaemia gradually disappear. Dyspnoea, palpitation, oedema, muscular weakness, irritability and fever—all these vanish as the blood picture improves. The lemon tint of the skin also disappears as the increase in the red blood cells and hemoglobin takes place. The tongue, which is characteristic of Pernicious Anaemia, soon loses its shiny or beefy appearance and looks quite normal. The gastric discomfort subsides, and an appreciable increase of appetite occurs. Chlorhydria ceases after adequate treatment with Opoc-

rin Hepar, but in those cases where it persists it is advisable to administer Hydrochloric acid daily in drachm doses.

Concerning the nervous symptoms, it does not achieve much except that it prevents their further progress. Patients usually do not show any extension or aggravation of the symptoms. It is futile however to deny that prominent symptoms and altered reflexes due to degenerative changes persist even after the protracted treatment. Mild nervous disturbances, muscular inco-ordination and sensory disorders improve markedly and the patients are left with minimum incapacity under the regime of Opocrin Hepar. The changes due to organic damage of the spinal cord persist but general improvement in the trivial nervous symptoms takes place with the increase in the red cell count.

In most of the cases favourable results are evident with this therapy in one and a half to two months but stubborn cases require three or even four months. The intramuscular injections of this gland preparation is rapidly growing into favour. The injectable extracts are preferred in cases of intense severity and in those patient who cannot be treated by Opocrins. At the commencement one ampoule (0.05 gm of succus hepar) is injected every day for a week or ten days. The injections may then be repeated twice a week after a rest period of seven days. The dosage may be regulated according to the hemoglobin values and erythrocyte counts. Massive dosages are required where the nervous symptoms are more pronounced and these should be continued until there is distinct amelioration of the symptoms. The injection treatment should be supplemented by the Opocrins 6 to 8 of which should be given daily.

There are many sound reasons for selecting the injection method of treatment as far as possible. In some cases there is derangement of gastric function leading to faulty absorption when liver preparation is given by the oral route. The injections are not accompanied by any of these phenomena. Again the hematopoietic properties of the liver preparations are liable to be destroyed in the digestive tract when administered orally. Intramuscular administration is not only well absorbed but gives a prompt and

complete response in relatively small doses. The rapid manner in which it regenerates blood is an important attribute of the injections. Being rational in composition and uniform in activity the injections can be relied upon to afford the best possible method of treatment in Pernicious Anaemia.

Oral therapy in Gonorrhoea.

In both general or specialised practice the need of a reliable vaccine preparation for Gonorrhoeal infection by the oral route was long-felt. By the introduction of Rheantine the role of oral medication in the treatment of urinary infections, particularly of the lower tract, has been settled. Formerly physicians or rather urologists would look upon an oral product with scepticism but this has completely disappeared like the mist before the sun due, to the convincing efficacy of Rheantine. Following the discovery by Neisser of Gonorrhoea being a disease of bacterial origin, came various antiseptics either alone or in combination with balsams. But these are effective in the presence of only concentrated or highly acid urine. Besides, they produce considerable urinary irritation and at times even cause haematuria. Then came silver salts for local irrigation. Although they are able to a certain extent to destroy the invading organisms, they are not effective and are not able to control the objective manifestations and the subjective symptoms. Contrary to these internal antiseptics and silver salts for local use Rheantine exerts a powerful antibacterial influence without any of the disadvantages mentioned above.

Rheantine is a perfectly anhydrous and stable vaccinal powder containing roughly 50 millions of bacilli per milligramme. It is available in the form of spherules with an inert excipient and fine coating of Keratin. Each spherule contains approximately 3 million bacilli derived from 24 different stocks. It is therefore a potent polyvalent vaccine meant for oral medication.

Rheantine when administered by the mouth causes a little more discharge at the commencement but this is soon followed by marked diminution. The discharge soon changes from its thick, abundant and creamy consistency into a hyaline one, diminishes in quantity and soon ceases. Rheantine is quickly absorbed and is absolutely non-toxic

and non-irritative in therapeutic doses. It possesses marked bactericidal power towards the invading organisms particularly Gonococci, Staphylococci, Streptococci and B. Coli Communis. Rheantine is absolutely stable and is eliminated in sufficient concentration to exert a local anti-bacterial action. Its action is continuous and it is effective in either alkaline or acid medium. Bacteriological investigations have shown that it is decidedly effective not only in the rapid modification of pus, but the Gonococci become extra-cellular two or three days after the treatment. Later on it ceases to behave as a parasite on the polynuclear leucocytes and the large epithelial cells. As the treatment is continued there is a further change for the better until the Gonococci become agglutinated, are arranged in a mass and are eventually bacteriolysed. It will be thus seen that bactericidal activity runs parallel with decrease in pus and the subjective symptoms.

The efficacy of Rheantine in the treatment of acute Gonorrhoeal arthritis has been proved beyond doubt. It will be noted that the course of the disease is markedly lessened under the influence of this product. After a few days the discharge ceases, the gonococci are no longer demonstrable in the pus and leucocytes also disappear. The prostatic secretion does not show any pus. The subjective symptoms such as pain, burning etc., also disappear. In fact the patient soon gets free from his infection. If the treatment with Rheantine is begun sufficiently early and if the infection is restricted to the anterior urethra, the further extension as well as the complications can be easily prevented. It is unnecessary to add that this oral therapy should be carried on in conjunction with mild anterior irrigations with Bienacrol. So encouraging are the results of this oral therapy with local irrigations that in the majority of cases no injections or other difficult measures are needed.

In chronic Gonorrhoea Rheantine forms a valuable method of treatment along with local irrigations. Its bactericidal action on the Gonococci as well as other secondary organisms prevents them from penetrating into other organs such as the vesiculae, prostate, epididymis, cervix etc. In posterior urethritis or in chronic Gonorrhoea,

Rheantine with Blenacrol irrigations has been the treatment of choice recently and it is found from clinical experience that with no other method has there been such a rapid relief of the strangury and clearing up of the urine. To overcome Gleet therefore Rheantine administration is not only a safe and sure method but is a decided advance on the old-fashioned injections of vaccines. It has succeeded in bringing about a cure in the overwhelming majority of cases, and in averting complications.

When posterior urethritis remains untreated the gonococci invade the prostate and prostatitis is the result. Whether it is the mild catarrhal and follicular form or a severe acute type with pain in the back, deep burning sensation and feeling of weight or the chronic form, Rheantine is equally useful in affording relief from pain on account of its antiseptic action and penetrating power. Rheantine is the best method so far available of approaching the gonococci which usually lodge and persist in the prostate. These are not directly accessible to local therapy and startling success has been met with by the oral administration of Rheantine which has the power of penetrating into the prostate and destroying the pathogenic organisms there. In addition to this therapy it is always necessary in this complication to advise the patient to take complete rest in bed with light diet. Regulation of the bowels, elevation of the pelvis, hot sitz baths and prostatic massage cautiously and gently performed are things which will be found very useful in this affection.

Another complication of Gonorrhoea which can be successfully treated with Rheantine is Epididymitis. Because of its deep penetration and antiseptic properties, Rheantine is very effective not only in lessening the pain and other subjective symptoms, but in destroying the Gonococci. This treatment can be supplemented by local applications of heat, rest in bed and suitable suspensory bandage.

Rheantine has proved particularly valuable in Gonorrhoeal Arthritis. It is eminently suitable for this purpose because it acts as effectively as vaccines without any of their disadvantages. Not only are the pains, swelling etc. relieved, but a complete

cure is accomplished through the destruction of the pathogenic organisms. If the treatment is continued for a sufficient length of time, it is almost sure that Gonococci will be destroyed in the blood. It is therefore essential that Rheantine therapy must be resorted to regularly and for some length of time in such cases.

Excellent results have been obtained with Rheantine in cases of Gonorrhoeal Ophthalmia. The muco-purulent discharge as well as the inflammation clears up in about three days. Whereas with other treatments longer periods are necessary for the cure, Rheantine affords immediate and speedy relief with none of the discomforts. Again the easy method of taking it, its toleration and freedom from by-effects are features which are not found in any other remedy for this complaint.

That Rheantine is of great value in Gonorrhoeal infection in the females need not be emphasised too strongly. Along with local irrigations with usual solutions preferably Blenacrol, Rheantine can safely be depended on. Thus we are able to get rid of urethritis, cervicitis and even endometritis.

Rheantine is therefore a remedy which signifies a real step in advance over the previous methods of treatment. It fulfills all the requirements expected of a reliable anti-gonorrhoeal preparation. In the majority of cases a quick and decided improvement takes place. The pain disappears with uniform regularity, so also the frequency of and burning during micturition. Improvement is soon followed by a cure within a short length of time.

The chief advantages and characteristics of Rheantine may be thus summarised:

1. It has a powerful anti-bacterial action against several organisms particularly the gonococci.
2. It is effective both in alkaline and acid urine.
3. It leaves no by-effects.
4. It is rapid in action and it is able to penetrate into the tissues.
5. It does not cause irritation and is perfectly well-tolerated.

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6. It is in the form of coated tablets which help it to pass through the stomach without being affected by its secretions.

7. It can be given orally.

The following case will illustrate the good results that Rheantine produces in Gonorrhoeal affections:

A young man had an attack of Gonorrhoea about a month back which according to him was cured after some treatment. When he came to me he had a troublesome feeling of fullness and occasional pains in the region of the prostate. He had a slight whitish discharge at times in the morning, but complained of pain in the back. Examination per rectum revealed enlargement of the prostate with seminal vesiculi much thickened. The diagnosis was clear. He was advised rest in bed and light diet. His bowels were regulated and he was asked to take hot sitz baths. He was administered 6 tablets of Rheantine every day. Rectal irrigations with normal saline was also ordered. Prostatic massage was also done every day for two to three minutes. All the symptoms were alleviated by four days of this treatment. When he felt perfectly well after six days all the local measures were stopped with the exception of the prostatic massage, but Rheantine was continued for some days as a measure of safety and for prevention of further complications.

Clinical trials with Cryogenine.

The favourable results experienced with Cryogenine by numerous medical men during recent years had led to their adoption of this remedy as a part of their routine treatment in all cases where antipyretic and analgesic actions are called for. Cryogenine is a white crystalline, odourless and tasteless powder, the composition of which is Metabenzamido-semicarbazide. The deciding factor in the choice of this preparation is that Barbituric acid, to which the majority of patients react badly, does not find a place in Cryogenine. As it is often necessary in many cases in general practice to have a product combining antipyretic and anti-neuralgic actions, Cryogenine comes in very handy. It is an antipyretic of outstanding excellence with reliable and lasting action and is particularly

valuable in the treatment of fevers in those cases where other physical measures fail and cannot be carried out at all. Not less useful is its strong anti-neuralgic and analgesic action which removes pain of the most varied nature and causation. Experiences gathered over a period of a year absolutely confirm its efficacy, reliability and harmlessness as a therapeutic agent. In fact it is three to four times more effective than any other coal-tar derivatives, the only point to be borne in mind is that large dosages must be employed. Even with these doses there is no fear of any undesirable secondary effects nor is there any injurious action on the heart or the kidneys.

Cryogenine can be administered with sure results in all acute febrile conditions such as Malaria, Typhoid, Pneumonia, Influenza etc. When given every two or three hours in 10 gr. doses three to four times this product is capable of providing a complete substitute as a hydrotherapeutic agent in those cases of pyrexia where for some reason or other these measures cannot be carried out. The temperature is brought down with surprising rapidity without the least injury to the patient, and further complications can thus be avoided. Cryogenine possesses excellent antipyretic properties by reason of its composition, in which there is not a superposition of the effects of the components but a real synergistic action. It therefore effectively replaces such drugs as aspirin, phenacetin etc.

In physical patients who usually develop temperature in the evening, desferescence can be brought about by the administration of Cryogenine. The reduction in the temperature effected by this remedy without any troublesome or injurious by-effects affords ease and comfort to the patient. This enables him to have better sleep at night. This long refreshing rest favourably influences the general condition. Cryogenine is decidedly a most comfort-giving remedy in this disease and is thus a material factor in the improvement of these patients.

Cryogenine is easily the best existing remedy for all types of pain. Rapid relief is afforded with this medicament in pains of the most varied causation. The analgesic effect becomes usually manifest 30 to 45 minutes after the tablets are administered. Two tablets or 10 grs. are often required to get this effect but 3 to 4 tablets may be

given without harm in exceptional cases. The doses may be repeated according to the necessity of the cases. The pain disappears and the patient sleeps quietly and awakes next morning free from any ill-effects.

Headache of whatever origin is promptly relieved by Cryogenine if it is given in large doses. Whether the headache is due to high temperature or whether it follows over-exertion and bodily fatigue this remedy can be relied upon as a satisfactory and a reliable analgesic. Cryogenine can also be used with success in Migraine arising from various causes and also in habitual headache, headache due to errors of refraction etc.

Intense headache and joint-pains, the characteristic symptoms of Influenza, need special mention. Cryogenine is found to be particularly valuable as it has no deleterious effects on the heart or kidneys, which advantage distinguishes it from Salicylic Acid derivatives which are often employed in not a very judicious way.

Cryogenine can be employed with great advantage in Bronchopneumonia following Influenza for its antipyretic and analgesic effects, with this advantage, that it does not affect the heart and in view of the fact that any alkaloidal narcotic is contra-indicated.

Cryogenine is an excellent palliative in the various forms of neuralgia, in frontal sinusitis and laryngotracheitis. The patient is able to get through these conditions with comfort as it gives him relief from pains.

Cryogenine is a medicament of proved value in all rheumatic pains whether articular or muscular. It can be given with safety as it causes no by-effects especially on the circulation or the heart, which is usually affected in these cases. Here special mention must be made of Sciatica wherein this remedy can be used to relieve pain. It renders sleep possible at night by the great relief that it affords to the patient. No harmful by effects on the system are ever experienced even under continued administration.

Cryogenine relieves the abdominal pain and headache of Dysmenorrhoea in a remarkably short time. Whereas formerly it was thought that Opium and its derivatives could alone meet the requirements of these conditions, Cryogenine

by its excellent analgesic effects has overcome all the disadvantages. It is of particular value in these conditions as it can be used in the treatment of ambulatory types where Opium and its alkaloids cannot safely be indicated.

If used in sufficient doses Cryogenine can be recommended for the treatment of uterine pains arising from any cause whatever.

Cryogenine can also be used extensively in paediatric practice both as an antipyretic and analgesic. In pyrexias of varied origins, in painful and difficult dentition it has been found of great value. The doses must however be individualised.

Cryogenine has proved its utility in dental practice also. Good results attend its use in cases where pain is the principal symptom. It can therefore be used in such conditions in pain following extractions, caries of the teeth, pulpitis and periodontitis. Cryogenine has the most powerful action when used in large dosages.

It exerts an equally certain analgesic action in earaches. Especially in furuncles of the external auditory meatus it reduces the violent pains until they are either ready for incision or until they burst.

The action of Cryogenine as can be seen from above is more powerful and harmless than that of similar preparations. Over these latter it has certain marked advantages. Its action is more graduated, a fact of particular importance in cases of high pyrexia. Although relatively large doses are required to be used no unpleasant by-effects result from its administration. Again its use can be extended without any hesitation as there is no possibility of its affecting the heart, kidneys or any other organ. It is always well-tolerated. It has a wide field of indications, especially pain of the continuous type where its use, unlike Opiates, may not be restricted. No habit-forming or cumulative effects are experienced with drug, which is a distinct advantage over the Opiates. By reason of these advantages and the clinical results that it affords Cryogenine can be recommended as a proved remedy for the reduction of pain and temperature no matter what its origin or cause may be.

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.

Neuresthenia. Thymus, Triple Arsenates with Nuclin, Nucliated Phosphates or Neurolecithin or Lecithin in pills may be given.

Nitritoid attacks: Alarming symptoms which sometimes come on, from 3 to 10 minutes after commencing intra-venous injections of arsenical preparations may be counter-acted by the administration of Adrenalin 1 in 1000 solution in $\frac{1}{2}$ to 1 cc. doses. Sodium Thiosulphate 10 to 15 grs. in 5 cc. of distilled water may also be given intravenously or intramuscularly; Pulv. Sodium Thiosulphate grs. 30 may be given in half a tumbler of water before meals.

Night Sweats in Phthisis: Camphoric Acid is good. It may be given in 20 to 30 grains doses in capsules. Acid Camphoric drs. 4, Alcohol ozs. 2, Mucilage Acacia ozs. 3, Syrup Aurantii ozs. 6; a dessert spoonful should be given an hour before the expected sweating. (Hare).

Night Blindness: is sometimes a sequela to malaria or sometimes due to deficiency of Vitamin A. Treatment with liver or liver with spleen is useful.

Night Tremours: (in children) is often due to the exhaustion of the Carbo Hydrate store in the body. So Glucose should be given liberally.

Neuralgia—in anaemic cases—Quinine Hydrochloride grs. 5, Acid Hydrobrom Dil mms. 20, Tincture Gelsimium mms. 10, Aqua Chloroform oz. $\frac{1}{2}$ to be given every 20 minutes till the pain is relieved, not more than 4 doses being given at a time. (Leonard Williams).

Neuralgia—Of the gouty type—Sodium Salicylate grs. 5, Phenazone grs. 5, Syrup Gingeris dr. 1, Aqua Chloroform oz. 1 to be given every 15 minutes; not more than four doses at a time. (Leonard Williams).

Neuralgia—Of the Ovarian Type—Belladonna and Phenazone be given and blisters applied to the regions of the ovaries.

Neuralgia—Of Cranial Type—Quinine Hydrochloride grs. 5 in pill every half an

hour not more than 6 pills at time. This may be combined with gelsimium. External application of Liniment Aconite with a brush on the seat of pain is useful.

In vague and ill-defined cases of Neuralgia, Ammonium Chloride grs. 20, with Tincture Cimicifugi mms. 20, is very effective (Hare).

Neuralgia—Of General Type—Acetanilidum grs. 2 with Soda Salicylas grs. 10 or Camphor monobromide grs. 6 in capsules. Morphia is good for occasional use. Leeching in full blooded persons gives marvellous results. (Leonard Williams). Butyl Chloral Hydrus 3 to 5 grains in pills every two hours until pain is relieved may also be tried.

For External Application—In all kinds of Neuralgias, Chloral Hydras grs. 50, Camphor drs. 6, Ol Gaultheria dr. 1. Alcohol oz 1, to be mixed well and applied on the painful parts.

Sciatica: Antipyrine grs. 10 in 15 to 20 mms. of sterile distilled water may be injected immediately over the nerve. Tincture Aconite mms. 4, Tincture gelsimium mms. 10 every hour until labial and digital tingling is felt. Cocaine and Osmic Acid 10 to 20 mms. of 1 per cent solution has also been tried with success. (Sagos.) Locally 15 grs. of each of Menthol, Gualacol dissolved in drs. 5 of absolute alcohol or cocaine 15 grs. Menthol grs. 10, Vaseline dr. 1 to be made into an ointment and painted over the painful part. Sodium Salicylas drs. 2, Sodium Bromide drs. 2, Ammonium Chloride dr. 1 $\frac{1}{2}$, Tincture gelsimium dr. 1 $\frac{1}{2}$, Extract Glycyrrhiza drs. 4, Aqua Chloroform add ozs. 8; $\frac{1}{2}$ an ounce thrice a day.

Trigeminal Neuralgia—Trichlorethylene 20 to 25 drops to be put on gauze and inhaled 3 or 4 times a day. Inhalations to last until odour disappears. Adrenalin acts well in some cases. Tincture Gelsimium and Aconite have sometimes marvellous effects.

Neuritis—Of Brachial Plexus—liniment containing one part liniment Aconite, 2 of liniment Belladonna, three of liniment Chloroform, is good. Linseed poultice mixed in $\frac{1}{2}$ oz. of Tincture Opium has a very good soothing effect. In neuritis of auditory nerve, Pilocarpine injection 0.3 cc of 2 per cent solution is good; 10 injections

should be given once in 2 or 3 days; repeated after 2 or 3 months. Intravenous injection of Sodium Iodide 1 to 6 grams every 3rd day has very good effect in all varieties.

Nipple Sore: Balsam Peru, Tincture Arnica, each mms. 30, Ol Amagdalae and Aqua Calcium, each drs. 4 to be mixed and applied with a brush.

Nocturnal Enuresis: Thyroid and Pituitrin injections are good.

Nausea—Due to Duodenal Anti Peristalsis—A powder containing one gram of Disodium Phosphate, 1 gram of Sodium Bicarb, gram 1 of Sodium Bromide in 100 cc of water to be given 45 minutes before each meal.

Naevus: Injection of boiling water under gas anaesthesia has been found to be very useful.

News and Comments.

All India Medical Council: If the news about the proceedings of the meeting of the All-India Medical Council which met in Simla on the 12th instant could be relied upon, it looks as if the Council could never depend upon its own deliberations. The Council at its last and the first meeting threw out the suggestion of the Government of India to appoint the Secretary as one of the Inspectors for visiting such of the medical colleges in India and Burma which required recognition by the Council. It now transpires that Dr. MacRae was a nominee of the General Medical Council, Great Britain who was recruited by that body on behalf of the Government of India with the specific condition that he should not only be Secretary but also the Inspector of the Medical Council. Though Section 9 (2) of the Indian Medical Council Act empowers the Governor-General in Council to appoint the Secretary for a period of the first four years of the life of the Council, the Governor-General in Council has no power to appoint inspecting staff which is the function delegated to the executive committee of the Council subject to the vote of the Council. That is why the Government of India got perturbed at the decision arrived at by the Council in not appointing Dr. MacRae as the Inspector at its first meeting and within a few months yet

another meeting of the Council was summoned to reconsider the decision of the Council and it was possible for those who have been working at it to bring about a change in the power of judgment in those members who on their own accord gave once their judgment against the appointment of Dr. MacRae as Inspector. Evidently the Government of India seems to be more anxious about the aims and objects they had in view for the passing of the Medical Council Act than the smooth working of the Indian Medical Council. Or else there is no justification in forcing the Council to function only with regard to the appointment of the Inspector even before framing of the rules and regulations for carrying out the purposes of the Act. There is a provision for the framing of such regulations by the Governor-General in Council until the first council is constituted but the regulations so made may be altered or rescinded by the Council. We are not sure if the Governor-General in Council did frame the regulations and if he did matters would have been simpler. There seems to be now a war declared between the National prestige and the Government prestige. We have no reliable materials before us to forecast the ultimate result of the warfare. There are always two sides for a question. We have not been able to look both sides ourselves excepting through what is reported in the Press and if the matter does not go to a Court of law, hope to revert to this subject in another place in the next issue.

Post-Graduate Training: It is highly commendable that almost all the medical officers in charge of the King George Hospital, Vizagapatam did conceive of a laudable idea of imparting lectures for the Post-Graduates in general and special branches of Medicine and Surgery in the premises of the King George Hospital, free of any charge. In all the Hospitals in the West and in America ample facilities are provided by those who are in charge of Medical Education for post-graduate training and in spite of agitation the Government of this country who are in sole charge of Medical Education in all its branches, have not as yet done anything in this direction and it is a very pleasant and happy irony that the paid officers of the Government have on their own initiative taken upon themselves the responsibility of imparting post-graduate training

to medical men without any remuneration, in a true national spirit and thus made it possible for the paid-staff to work as honoraries.

We congratulate the Vizagapatam Medical Union and trust much good will come out of their disinterested work for the profession.

A Gratuitous Insult: Under the caption "Preventing spread of Smallpox" a notice appeared in the columns of the local dailies a few days ago from the Acting Director of Public Health Madras to the effect that as decided at the Regional Conference of the League of Nations held at Cape Town in 1932, "intending passengers from infected countries should not be permitted to embark for foreign ports unless they are in possession of valid vaccination certificates. That facilities should be furnished for the issue of these certificates."

It is mentioned in the notice that the vaccination certificates are valid if they are granted by the Port Health Officers, the Municipal Health officers or Civil Surgeons and if granted by other Registered Practitioners, they were to be counter-signed by the officers of the rank mentioned above.

It is preposterous that invidious distinction is made in the granting of vaccination certificates between the member of the Public Health Department and other Practitioners both in service and in private practice. Medical Officers in the cadre of only Civil Surgeons are considered by the Director of Public Health to be competent to issue vaccination certificates in the medical department. Is the Director of Public Health not aware of the G. O. abolishing the procedure once in vogue of getting counter-signature on medical certificates as the Madras Medical Council expressed its opinion that such a procedure was unethical? To say that only those mentioned by the Director of Public Health and none else in the profession are competent to grant vaccination certificates to passengers going to foreign ports is a slur on the rest of the members of the medical profession both in service and outside.

We trust that the President, Madras Medical Council who is the accredited guardian of the rights and privileges of the profession as a whole and who is also the Chief Adviser to the Government on matters "Medical", will take note of this gratuitous insult, to the medical profession, though

unintentional, and rectify matters at an early date.

Accidental Experiment: The Government General Hospital, Madras, has now a staff consisting of 3 stipendiary physicians, 2 honorary physicians and 3 stipendiary surgeons, having under them subordinates of various denominations, both paid and honorary. We pointed out some time ago that there was no need of so many surgeons and physicians and the work in the Hospital could be managed by one surgeon-in-chief, and one physician-in-chief who should be the consultants to all the other staff in the Hospital and that work could be very well divided amongst a number of assistants equal in professional experience and seniority to the senior assistant surgeons. We said that the latter arrangement would bring in more efficiency, and would also be a good financial proposition.

There have been very many occasions, almost every year, when a surgeon or a physician took leave and his work was nominally looked after by another colleague of his in the hospital without getting a substitute; but actually, all the work even including major operations were performed by the Assistants of the officers who took leave. Almost all such assistants are not seniors in service and yet the work had been going on without a hitch. This month a rare opportunity arose when 4 out of 5 physicians of the General Hospital including the honoraries took leave and their assistants were deputed to officiate for the absentee physicians and work is said to be going on as smoothly as ever to all intents and purposes. There is also a permanent vacancy of a surgeon, Col. Anderson having been transferred to Calcutta, and the work of this surgeon is being done by his assistant.

We request the government to satisfy itself by calling for statistics of the death rate in the Hospital and find out if it was not more than usual and if nothing untoward has happened in the Hospital Administration during this period, when the General Hospital was actually staffed by assistant medical officers, paid and honorary, take advantage of this accidental experiment and evolve a scheme of curtailing the so-called superior staff of the Govt. General Hospital; such a step which would give relief to the tax payer by curtailing the heavy ex-

penditure spent on high salaries, and thereby give better facilities to the junior members of the profession both in service and outside, for equipping themselves as capable physicians and surgeons.

Why force Purda on women: We have received a communication from the guardian of a woman medical student, Lady Willingdon Medical School, Madras requesting us to suggest to the authorities through these columns about the advisability of admitting women students into the Stanley Medical School. Several allegations have been made in this communication regarding the hardship of the students at the latter school and as some of them are of personal nature, we did not publish this communication. The fact that the student who made this complaint through her guardian had failed in more than two subjects in the first year is another circumstance which weighed with us for withholding the communication. We thought that the best way of judging the training imparted in the school, was by the results of the Board Examination. As the complaining girl was a first year student, we asked her guardian to furnish the results for that year not only of the Lady Willingdon Medical School but also of the other two schools i.e. Vellore Medical School for women and the Stanley Medical School and the percentage passes were: Lady Willingdon Medical School 21, Vellore Medical School 40, Stanley Medical School 70 per cent. It is also to be noted that the number of pupils in the first year at the Willingdon School was only 14, while that at Vellore 15, and Stanley Medical School 64. The above facts clearly indicate that either the general education of the pupils of the Lady Willingdon School is very low or the training is inefficient. It will not be out of place if we were to give expression to our experience of the advantages of running mixed institutions instead of sectarian. There are co-operative Societies run in cherries only for the benefit of the Adi Dravida community both in the city and outside. It is the experience of the Co-operative department that majority of such societies are not working satisfactorily, the complaint being that those who borrow money in these sectarian societies never repay regularly. There is a co-operative Bank in this city which is run on non-communal lines and it has a large number of

Adi Dravidas as its members and almost all these members are regular and more prompt than the members of other communities in the repayment of the money borrowed, thus proving that mixed associations have a good effect on human society. This can't be otherwise in a mixed Medical School. Financially also it is not a sound policy on the part of the Government to run a sectarian school only for a few girls at a heavy expense especially when there was not a demand for it from the women folk. In Delhi and a few other places in northern India there may be a justification to run Women Medical Colleges and Schools as the women in those parts belonging to Hindu communities also observe purda but why force it on Madras where women are vying with men in all public activities and are desirous of mixing freely with their brethren. The fact of running sectarian Medical School for women looks more incongruous in Madras where mixed Medical Colleges and other teaching institutions are run and conducted most smoothly.

Admission in Medical Schools and Colleges: Ever since the Government of Madras recognised the baneful practice of running the Government on communal principles there came into existence in this province 'Selection Committees' to control admission of students in schools and colleges of all denominations and year after year the Government have been suggesting formulae for the guidance of the members of the 'Selection Committees'. The principles underlying these formulae so far concerned only about the restriction of admission to Brahmins. This year the formula prescribed by the Government have undergone changes and in addition to the restriction of the Brahmins the two districts of South Kanara and Malabar have been grouped together and instructions have been given to the 'Selection Committees' that in addition to the maintaining the communal proportion in admissions as Brahmins 17 per cent, Non-Brahmins 41 per cent, Indian Christians 17 per cent, Muslims 17 per cent and all others 8 per cent, they should select only 45 per cent each from Tamil and Telugu districts and only 10 per cent from the West Coast districts. From the results of the selections made it is seen that the districts of Malabar and South Kanara receive the

hardest hit. Communal jealousies have been advancing to such a pitch that the suggestion of selection on merit will not only be misconstrued but even not tolerated. All the same we wish the authorities to note that preponderance of a particular community or representatives of particular districts on a particular coast in technical institutions at least was due to psychological causes due to the special aptitude of such of those coming from a particular community or a group of districts. It should be within the knowledge of all that noted Ayurvedic Physicians come from West Coast, those from Siddha System come from Central districts of the Madras Province. In the same way an unprejudiced eye will see special mental faculties predominating in communities of a few individual districts or group of districts in close proximity. No mean advantage should be taken of natural gifts by the Government as such a course would be against the development of nature and bound to reflect on society. Even on political considerations which seem to weigh most with the Government the principle of grouping applications as Tamil, Telugu and West Coast in addition to the maintaining of communal proportion is not sound. No district can go unrepresented in the Legislative Council and also no community. In the formula now adopted by the Government a particular community may go unrepresented in the Medical School or College as in the matter of selection of Tamils, Telugus the Committee would take into consideration the merit of these and it may so happen that a particular Tamil or Telugu district has the preponderance of applicants of high merit and consequently many other Tamil or Telugu districts may go unrepresented. It will not be out of place to mention also that the women applicants are likely to suffer in the present arrangement and we are told that a Brahmin girl from South Kanara who passed her Intermediate in first class in the Natural Science group could not get admission into the Medical College while boys and girls far below her in merit were fortunate to get in. The girl happens to be the daughter of a deceased Assistant Surgeon in provincial service.

We appeal to the peoples' representatives of all districts especially those of South Kanara and Malabar to make representa-

tions to the Government, to frame a formula on sound political principles giving representation to all the districts. Any formula based on political representation of districts in Medical Colleges and Schools can certainly be worked more easily and justly too than the formula now adopted by the Government. There are at present 26 districts in this province and 31 Brahmin, 39 Non-Brahmin Hindus, 23 Indian Christians, 4 Muslims and 1 depressed classes have been chosen for admission in the Madras Medical College out of 242 applicants and in the Stanley Medical School 25 Brahmins, 25 Non-Brahmin Hindus, 9 Indian Christians, 2 Muslims and 4 depressed class have been selected out of about 215 applicants. It will be seen from the above number of selected candidates that it is quite possible to give representation to the communities and districts without any difficulty and with justice to all concerned if the selection is made district war.

Christian Medical College: The Christian Missionary doctors have been considering for the last several years the desirability of starting a Medical College of their own in a central place in India. At a Conference of the Missionary doctors which met at Kodaikanal last month under the presidency of Dr. Ramber of Central Provinces, it has been decided to start the College in the near future and the Conference was hopeful that they could realise nine million dollars by way of gifts and donations from America and England. The Conference discussed also the necessity of having a pharmaceutical depot to supply drugs to all missionary hospitals in India. We wish the missionary members of the Medical profession in India work hard and bring into existence a medical college in the near future. This institution will we hope harmonise good communal relationship in medical colleges especially in Madras and even in other provinces where the infection of communal poison in technical teaching institutions will soon reach a crisis.

Madras Medical Council Elections: For the two vacancies that arose in the Madras Medical Council one, on account of the resignation of Dr. R. J. Dyson representing the first group in the medical register and the other on account of the death of Dr. S. Rangachari

who represented the registered practitioners of the second group in the register, nominations were asked for from the electorate by the Returning Officer and it is said that no nomination paper was received from any registered practitioner in the first group and consequently election proceedings should be started again for this constituency. It is most strange that the registered practitioners in the first group did not evince any interest in the elections. We trust history will not repeat itself for a second time also.

Regarding the other election for the choice of candidate by the registered practitioners in the second group of the medical register, it is said that two candidates were nominated one, Dr. M. S. Krishnamurthi Ayyar, our senior Editor and the other Dr. T. Satagopan. At the request of Dr. M. S. Krishnamurthi Ayyar Dr. Satagopan has withdrawn his candidature and consequently Dr. Krishnamurthi Ayyar is declared elected unopposed. It was certainly magnanimous on the part of Dr. Satagopan for having withdrawn in favour of one of the most senior graduates in the city. We need hardly comment on the services rendered by Dr. M. S. Krishnamurthi Ayyar ever since he retired in 1924 as the Sanitary Commissioner, Travancore State, both through the columns of this journal and also the lay press and we trust that with an additional qualification of being a representative of the graduates in the Madras Medical Council Dr. M. S. Krishnamurthi Ayyar would be able to render much better service to the profession.

A Notable Transfer: Lt. Col. Anderson, who for the major portion of his service, in this province, was the Principal, Medical College, Vizagapatam and later transferred to Madras as the Second Surgeon, Government General Hospital and Professor of Operative Surgery, Madras Medical College, is transferred to Calcutta as the Professor of Medical College and Surgeon, Medical College Hospital, Calcutta. It is very likely that Vizagapatam was found to be too small a field for a person of the capacity and zeal for service as Col. Anderson and at the sufferance of a teaching institution he was transferred to Madras. It is probable that circumstances of service are so changed at the Madras Medical College and Government General

Hospital that proper channels were found wanting for Col. Anderson for services of the type he was considered to be fit. Or else there are no sufficient causes or reasons for his transfer from Madras to Calcutta. Madras will certainly be feeling sorry for having lost the services of a capable surgeon and a disciplinarian but has to be consoled with the fact that he is serving another teaching institution of no mean order in the city of Calcutta. Many are musing to find out the agent for the initiation of this notable transfer.

Congratulations: Dr. C. Duraiswami Mudaliar is the only member of the medical profession in this province on whom the title of Rao Sahib was conferred on His Majesty the King Emperor's birthday. Dr. Duraiswami Mudaliar served the Government of Madras as a Sub-Assistant Surgeon and later as a Civil Assistant Surgeon to which cadre he was promoted in recognition of his merit. We congratulate Dr. Duraiswami Mudaliar most heartily and wish him a long life of usefulness.

Correspondence Reports, Etc.,

The South Kanara District Medical Association, Mangalore.

A meeting of the above Association was held in the Wenlock Hospital on 26-5-1934 when Capt. M. G. Kini, M.C., M.B., M.Ch., F.R.C.S.E., Second Surgeon, King George, Hospital, Vizagapatam, delivered a lecture on Anterior Poliomyelitis. The meeting was largely attended by members as well as non-members.

Lecture began with the demonstration of four cases of chronic Anterior Poliomyelitis. The first was a case of a young girl aged 12 years, who had developed a calcaneo-varus deformity of the right foot and a calcaneo-valgus deformity of the left foot, on account of the fact that whereas the peronei were working on one side they were paralysed on the other. This was a case to demonstrate that this peculiar combination of paralysis of the peroneal group of muscles, made the girl walk a bit better, as she would have developed a marked Genu-varum deformity of both legs if the peroneal groups of muscles were paralysed on both sides resulting in a most unsightly gait.

The second was an adult male about 26 years who had an attack of fever at the age of six years after which he developed a right hemiplegia, the residual paralysis now affecting only the right lower limb. He goes about with a stick in his right hand resting the right foot on it while taking a step forward with the left. On account of this peculiar gait he had developed a flexion deformity of the hip, subluxation of the knee with backward displacement of the Tibia as a result of the overworking of the flexors of the knee. His Tendocalcaneus was completely paralysed and he had a marked Pes-cavus deformity.

The third was a case of a young boy aged 9 years with a drop foot deformity of the fore foot, the flat foot being the result of shortening of the Tendo-calcaneus.

Fourth was an adult male aged 24 years, who had paralysis of the right Quadriceps, medial side of the Tendocalcaneus and a Pes-cavus deformity. He had also a pathological dislocation of the hip as a result of weight-bearing on the diseased limb at a very early stage. His gait was typical of Quadriceps paralysis. The lecturer then dealt with some of the salient points in connection with the acute stage of the disease. That it was essentially a disease of children between the ages 3 and 7 on account of the exuberance of lymphatic tissue of the Valdeyer's ring at the age. The organism was a filter-passing virus which satisfied Koch's postulates entering through the lymphoid tissue of the mouth and affected anterior cornual cells and as such the paralysis was a lower motor neuron-lesion. The spinal cord mostly in the region of the Cauda Equina is the part affected and this being situated about the region of the first lumbar vertebra—a pivotal point of the spine about which marked movement takes place—slight injuries to the spinal cord during such movements of the spine probably played a part in the particular susceptibility of this region of the cord to the virus. The virus kills the anterior cornual cells by its toxins and also by the pressure of exudate and growth of neuroglial tissue produced as result of inflammation, and recovery of certain group of paralysed muscles being explained by the removal of such pressure before the anterior cornual cells are permanently damaged by the overflow of impulses from adjacent

groups of cells. The disease begins with dramatic suddenness with a high temperature of 103 or 104 so much so that the relatives generally attribute it to an evil eye. The fourth case demonstrated was illustrative of this point. There is not much change in the C.S.F. during the acute stage of the disease. A marked hyperaesthesia of the limbs during a high fever of sudden onset was fairly characteristic of Acute Anterior Poliomyelitis and should always make one think of this condition. This hyperaesthesia could be considerably abated by keeping the child in a warm water bath kept at a uniform temperature of 100 F. During the paralytic stages the child ought to be nursed with its joints kept in a position of physiological rest in order to prevent ugly late deformities and the lecturer considered a Jone's double abduction frame a useful mechanical appliance. The child ought to be nursed in the frame till some time after all signs of the acute stage were passed and the paralysis has become stationary. In the treatment of such late residual paralysis re-education of the paralysed group of muscles by suitable exercises was very useful. Operations on tendons and tendon transplantation have not many advocates at present. As regards the other operations and fitting up appliances it was all a matter for the specialist.

The lecturer chose this particular subject because of the large number of persons afflicted with this disease and to focus the attention of the medical profession on this disease so that an early diagnosis and suitable treatment during the acute stage might avoid a lot of late deformity and considerably reduce the number of cripples going about the streets.

After the lecture on Anterior Poliomyelitis a few magic lantern slides of interesting cases of Gastric and Duodenal ulcers, certain Pyelograms, Meningoceles and fractures round the elbow were also shown.

The Honorary Secretary then thanked the distinguished lecturer for his ready consent to deliver the lecture. He said that the lecturer is one of the many distinguished sons of the District, who had made a name for himself and the District. He (The lecturer) had taken full advantage of the opportunities he got and became one of premier Surgeons in the Presidency. On behalf of the association and the doctors

present, the Secretary wished him God speed and greater laurels in his career. The meeting then terminated to reassemble in the Taj Mahal Hotel for dinner. There was a large attendance of local doctors who acted the hosts and the guests included Drs. M. G. Kini, B. Rama Baliga, and C. Rama Kamath. The dinner which started at 8-30 P. M. went on till 10 P. M. The guests had a very enjoyable time.

Lady Tata Memorial Trust.

AWARD OF SCHOLARSHIPS FOR 1934-35.

The Trustees of the Lady Tata Memorial announce the award of the following scholarships for the year 1934-35, on the occasion of the third anniversary of the death of Lady Tata:

International Scholarships of the value of £400 per annum each for research in diseases of the blood with special reference to leucaemias:—

(1) Dr. Walter Bungeler of German nationality, for research in experimental creation of leucaemias by chronic indol intoxication in mice, the influence of deranged products of metabolism in the production of leucaemia and therapeutic methods of controlling them (Renewal).

(2) Dr. Leonid Doljanski of Russian nationality, for research in tissue culture with reference to the Dynamics of blood cell formation. (Renewal).

(3) Dr. Martin Cyril Gordon Israels of British nationality, for research in the application of methods of tissue culture to problems of leucaemia and pernicious anaemia. (Renewal).

(4) Dr. Charles Oberling of French nationality, for research in the Transmissible leucaemias of hens and their relationship to the Sarcomas. (Renewal).

(5) Dr. Julius Engelbreth Holm of Danish nationality, for research on virus of hen leucocosis together with therapeutic investigations.

(6) Dr. Max Otto Kaalund-Jorgensen of Danish nationality, for experimental investigations on the myelosarcomatosis in mice.

(7) Dr. Rolf Meier of German nationality, for work on the cultivation of human

tissues outside the organism by special methods. Also the influence of body fluids on the growth of normal tissue and the influence of extracts of blood and of glands on cases of leucaemias and allied diseases.

(8) Dr. Lucy Wills of British nationality, to continue research in the macrocytic nutritional anaemia of monkeys with reference to tropical macrocytic anaemia in men. Also to investigate regeneration of blood by yeast treatment and the chemical nature of the haemopoietic fraction present in yeast.

INDIAN SCHOLARSHIPS.

Indian Scholarships of the value of Rs. 150 per month each for Scientific Investigations having a bearing on the alleviation of human sufferings:—

(1) Mr. Har Dayal Srivastava, M. Sc., to study Anatomy and Life-history of Helminth Parasites of Man and Animals, under the direction of Prof. D. R. Bhattacharya, D. Sc., Ph. D., and Dr. H. R. Mehra, M. Sc., Ph. D., Department of Zoology, University of Allahbad. (Second year's award).

(2) Mr. Sudhendu Kumar Ganguli, M. B., to study Chemotherapy of Antimalarial Drugs, under the direction of Lt-Col. R. N. Chopra, M. A., M. D., I. M. S., Professor of Pharmacology, School of Tropical Medicine Calcutta. (Second year's award).

(3) Mr. Nirode Chandra Datta, M. Sc., A. I. I. Sc., to study the role of Tin in Nutrition and the Effect of Body of Mineral Contamination of Foodstuffs during cooking and storage, under the direction of Prof. V. Subramanian, D. Sc., Department of Chemistry, Indian Institute of Science, Bangalore. (Second year's award.)

(4) Dr. M. V. Radhakrishnarao, M. B. S., to conduct clinical and pathological investigation of Decompensated Portal Cirrhosis and allied diseases, under the direction of Prof. T. S. Tirumurti, M. B. C. M., Department of Pathology, Andhra University. (Second year's award).

(5) Mr. Madhab Chandra Nath, M. Sc., to carry out Chemical and Biological Analyses of Proteins of Indian foodstuffs under the direction of Dr. K. P. Basu, D. Sc., Biochemist, Dacca University.

(6) Mr. Atma Ram Rajavanshi, M. Sc., researches into Actinotherapy in the Prevention of Metabolic Diseases under the direction of Prof. N. R. Dhar, D. Sc., F.

I. C., I.E.S., Chemistry Department, Allahabad University.

(7) Mr. Basheshwar Das Kochhar, M. Sc., to conduct Synthesis and Pharmacological studies of Antimalarial Compounds of Quinoline group, under the direction of Prof. S. S. Bhatnagar, D. Sc., Department of Chemistry, and Lt. Col. D. H. Rai, M. A., M. D., M. R. C. P., Professor of Pharmacology, Punjab University.

(8) Mr. Samant Keshao Mahableshwar, M. Sc., to elucidate the constitution ergosterol, under the direction of Prof. I. M. Heilbron, D. Sc., F.R.S., Department of Chemistry, University of Manchester.

(9) Mr. Kedar Nath Gaiind, M. Sc., to Synthesise new compounds possessing local Anaesthetic properties, under the direction of Dr. P. C. Guha, D. Sc., Department of Organic Chemistry, Indian Institute of Science, Bangalore.

(10) Mr. Yelandur Venkanna Srinivasa Rao, M. Sc., A. I. I. Sc., to study the Proteins of Indian foodstuffs, Chemical and Biological analysis, under the direction of Prof. V. Subrahmanyam, D. Sc., Department of Biochemistry, Indian Institute of Science Bangalore.

Scholarships to women Medical Students

AND

Nurses in Bombay

The Government of Bombay have issued revised rules regarding the grant of scholarships to women students at the B. J. Medical Schools of Poona and Ahmedabad and the Medical School, Hyderabad (Sind).

Candidates should be between the age of 16 and 30 years and should submit their applications to the Superintendents of the Schools in the prescribed form with the necessary certificates. Not less than one-third of the scholarships at the B. J. Medical School, Poona, will be assigned to the candidates from the Southern Division. In the event of there being no suitable candidate from the Southern Division, the scholarship may be awarded to any other suitable woman student at the School.

CONDITIONS AND TENURE.

There are six scholarships of Rs. 15 each per mensem available for women students at each of the B. J. Medical Schools at Poona and Ahmedabad. The number of

such scholarships to be granted every year will depend upon the number of vacancies, the total number of scholarshipholders each year being limited to six at each of the schools. The tenure of the scholarships will be for four years. There is only one scholarship of Rs. 20 per month every year for women students at the Medical School, Hyderabad. The total number of scholarships at that school should not exceed four at any time, the tenure of the scholarship being four years. The scholarships are liable to be forfeited in case of failure to pass the prescribed examination or may be suspended or discontinued in case of misbehaviour.

Other particulars regarding the scholarships may be obtained from the Superintendents of the above-mentioned schools or from the Surgeon-General, Bombay Presidency, Poona.

SCHOLARSHIPS OFFER.

The Bombay Ladies Branch of the National Indian Association is prepared to pay the fees of a certain number of deserving women students studying in the Arts, Science and Medical Colleges in the City of Bombay or being trained as Nurses in Bombay Hospitals. Forms of application may be had from the honorary secretaries:—Lady Jeejeebhoy, "Tardeo Castle", Tardeo or Mrs. Wheeler, Royal Institute of Science, Bombay.

NEW WAR ON MOSQUITOES.

Experiments in Bombay.

The Victoria Gardens in Bombay are the scene of an interesting series of experiments for the destruction of mosquitoes that is being carried out. Visitors to the Gardens in the late evenings have been intrigued by the hum of a generator and a curious blue light that has illuminated the trees. The experiments are carried on far into the night, long after ordinary visitors have departed.

The machines that are being employed are the invention of a Frenchman, Monsieur V. Menasche, who is making a tour of the countries of the world in which diseases propagated by flying insects are prevalent. Somewhat naturally, India, was the first country chosen, and M. Menasche arrived in Bombay with introductions from the eminent entomologist Prof. Seguy, of the

Natural History Museum in Paris. It is with the co-operation of Lt.-Col. Sokhey of the Haffkine Institute, Dr. J. S. Nerurkar of the Bombay Health Department, and Mr. Laud the Superintendent of the Victoria Gardens that the tests are being carried out.

The machines have been exhaustively tried out in Europe, notably in Portugal, where large numbers of dangerous mosquitoes, the *Anopheles maculipennis*, were trapped and sent to the Natural History Museums of London and Paris for verification. Happily such malaria carrying species are very rare in Bombay, where relentless war on them has been carried on by the Health Department.

Attracting the insects.

Briefly described, the machines utilise the rays of specially designed mercury vapour lamps to attract the insects, which, as they approach the machines, are sucked downwards into a gauze container by means of an electrically driven fan. The machines vary somewhat in size and design to suit the particular specimens that are being sought.

It is, of course, well-known that mosquitoes are not ordinarily attracted by light,—on the contrary they avoid it and fly only in the dark. The special lamps employed however, do not emit light in the ordinary sense, but rather rays, which according to their characteristics, have a curious attraction for insects. For different insects, separate lamps of varying design are used, whilst alterations are made to the electric current that is allowed to pass through them.

Three Machines used.

In a series of experiments carried out in the presence of a representative of the *Times of India*, three different machines were employed, each having a different combination of lamp and current. They were placed, perhaps, fifteen yards apart and each subjected to a run of about half an hour. An inspection of the contents of the containers of the three machines showed that whilst the first machine attracted mainly moths and flying beetles, the third machine caught about ninety per cent. of the mosquitoes, whilst the intermediate unit attracted an almost equal number of mosquitoes and somewhat larger insects such as flying ants. In other words, it is possible to "tune in" to the insect being sought.

In the dry season that immediately precedes the rains, flying insects are, of course,

comparatively few, and with the ordinary lamps of a motor car scarcely one could be seen. As soon as the machines were started up, however, they appeared in large quantities, whilst overhead, bats were flying around to take advantage of the unexpected feast offered.

French Scientist.

We understand that when M. Menasche has completed his research work in Bombay, he will travel upcountry to continue his experiments in malarial districts before going on to Siam. In that country he hopes to be able to experiment on the insects responsible for the disease *Surra*, a pernicious form of anaemia very prevalent amongst cattle there. It is stated that in some districts the mortality due to the disease is as high as fifty per cent! Scientists are following the experiments with interest, as the new method appears to possess interesting possibilities. (*The Times of India*) 2-6-34

Reviews.

Administration Report of the Sanitary Department, Travancore For the Year 1108 M. E.

The Report is, as usual, well written and interesting. This is the last report of the Sanitary Department, as it had been enlarged and named Public Health Department at the end of the year of the Report under review. From the Administration Report of the Public Health Department, which will be published next year, the nature of the operations and the success with which they were performed can be known. It would be better if instead of merely giving the number of births and deaths in each community the rate worked out on their population are given. The percentages of births and deaths worked out accordingly come to Hindus 2.25; 1.25; Christians 2.42, 1.00; and Muslims 2.04, 1.7. These rates give an increase of 1 per cent; 1.420 and 0.34 per cent among Hindus, Christians and Muslims respectively, while according to the last census they were approximately 2.3, 3.68 and 3.06. This great disparity demands careful enquiry and consideration. The object with which the collection of vital statistics was undertaken by the sanitary department in Police conservancy towns, was to obtain correct figures so that they might be useful as a standard for checking the accuracy or otherwise of the figures obtained in rural areas and municipalities. It is satisfactory to note that the Deputy Director is also of the same opinion. According to the rates obtained in the Police towns an average of 1.66 per cent year is obtained. Any marked variation from the rate demands further investigation before it can be accepted and inference drawn from it. We are pleased to note that the Public Health had been satisfactory during the year.

The Report of the Nowrosjee Wadia Maternity Hospital, Bombay For the Year 1933.

This Report, like its predecessors, is highly interesting and instructive. We congratulate the Superintendent and his Assistants for the successful work done. The accommodation available and the number of patients treated are more or less equal to those in the Government Hospital for women and Children, Egmore, Madras, while the nature of diseases treated in the former is more varied than in the latter. There are in the Wadia Hospital besides Surgeons and Physicians, Radiologists, Dentists, Pathologists etc. In addition to the attendance on delivery, the Cephalic measurements and weights and lengths of infants born are taken and compared with those of European infants. Unfortunately for ascertaining and scrutinizing the abnormality or otherwise of the conditions of patients, especially as regards their blood pressure, haemoglobin contents, blood cells count etc., the standard fixed with reference to a few millions of persons in the British Isles, are applied to the case of persons in India where the population is several hundred millions, and where habits of life, diet, environments, climatic conditions under which they live are quite different from those obtaining in the British Isles. Such comparison naturally leads to errors in diagnosis and treatment of diseases. It is essential, therefore, a standard should be fixed for each and every province in India. The attempt made in the Wadia Hospital in the

matter of measurements of infants is of great importance.

With all the work as described above done at the Wadia Hospital, it is maintained and administered by private agency and the Chief Superintendent and other high officers are honoraries. There is no reason, therefore, for any misgivings to arise in the minds of any Government, as to the desirability or practicability of extending the honorary system and of placing some important institutions under honorary superintendents.

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Here below appears an advertisement regarding "Tonovan" about which the manufacturers make the following statement.

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List of Postings of Sub Asst. Surgeons for the month of May, 1934.

No.	Names of Sub-Asst. Surgeons	From.	To
1	Dr. Mrs. R. A. Kurian	Govt. Hd. Qrs. Hl., Vellore	Presidency JI. for women, Vellore.
2	" L. V. Jagannatha Rao	L. F. Dy., Nandikotkur	L. F. Dy., Maddikera:
3	" K. Suryaprakasa Rao	L. F. Dy., Maddikera	L. F. Dy., Nandikotkur.
4	" M. Jagga Rao	Penetentiary, Madras	Govt. Hd. Qrs. Hl., Gunur.
5	" L. A. Subramanyam	Leave	L. F. Dy., Gingee
6	" M. Jacob	Vizag Agency	Gl. Hl., Madras.
7	" L. Jagannatha Rao	L. F. Dy., Chintalarudi	L. F. Dy., Kovvur.
8	" K. Satyanarayana	leave	L. F. Dy., Buchireddipalayam.
9	" Mrs. S. Gnanadurai	Govt. Hl., Attur	Govt. Hl., Tiruvannamalai.
10	" T. R. Venkataraman	Madras Ft. College	Govt. Hd. Qrs. Hl., Coimbatore.
11	" K. Govindankutti Nayar	Govt. Hl., Cochin	Govt. Hl., Tuticorin.
12	" S. Padamadan	Govt. Hl., Attur	Agency Duty Vizag.
13	" M. Subba Rao	leave	Govt. Hd. Qrs. Hl., Chingleput.
14	" C. R. Narayana Ayyar	Govt. Hl., Dindigul	L. F. Dy., Uttamapalayam:
15	" P. S. Dorairaja	L. F. Dy., Nattam	Medical college, Madras.
16	" P. P. Narayana Nair	leave	L. F. Dy., Mimisal.
17	" K. Pitchu Ayyar	L. F. Dy., Mimisal	L. F. Dy., Enangudi.
18	" R. Varadarajulu Naidu	L. F. Dy., Enangudi	L. F. Hl., Nannilam.
19	" J. Satyanarayanamurthy	leave	L. F. Dy., Chetput
20	" S. Kanthimathinathan	Govt. Hd. Qrs. Hl., Salem	L. F. Dy., Omalur.
21	" S. Sundaresan	L. F. Dy., Omalur	Govt. Hd. Qrs. Hl., Salem.
22	" K. Natarajan	Vizag Agency	Govt. Hl., Attur.
23	" P. S. Vaithinathan	leave	Govt. Hl., Tiruvallur;
24	" V. V. Gnaniiah	Leave	L. F. Dy., Uttangarai:
25	" T. S. Kasturi	L. F. Dy., Uttangarai	L. F. Dy., Rasipuram.
26	" P. Lakshminarayanamurthi	L. F. Dy., Chetput	Police Hl., Vellore.
27	" E. Avudainayagam Pillai	Police Hl., Vellore	Govt. Hd. Qrs. Hl., Vellore
28	" N. Gopalan	leave	Govt. Hl., Ariyalur:
29	" S. V. Raghavalu Naidu	Govt. Hl., Ariyalur	L. F. Dy., Sendurai.
30	" T. K. Nagarajan	L. F. Dy., Sendurai	Govt. Hd. Qrs. Hl., Trichy
31	" M. Audinarayanasaani	Govt. Hd. Qrs. Hl., Chingleput	L. F. Dy., Tiruvottiyur.
32	" T. B. Panchapakesam Pillai	Govt. Hd. Qrs. Hl., Chittoor	L. F. Dy., Tiruttani:
33	" M. A. Krishna Ayyar	L. F. Dy., Tiruttani	Govt. Hd. Qrs. Hl., Chittoor.
34	" O. Manicka Mudaliar	L. F. Dy., Uttiramerur	Municipal duty Conjeevaram.
35	" C. Padmanabha Menon	leave	L. F. Dy., Edapadi.
36	" V. Viswanathan	Police Hl. St., Thomas Mt.	L. F. Hl., Nattam.
37	" V. Narasimha Rao	leave	Govt. Royapuram Hl., Madras:
38	" K. Rajamannar	leave	Govt. Hd. Qrs. Hl., Cocanada.
39	" B. Satyanarayana	leave	L. F. Dy., Chagalmari.
40	" G. Venkataramayya	L. F. Dy., Chagalmari	Govt. Hd. Qrs. Hl., Masulipatam
41	" R. Seshagiri Rao	Govt. Hd. Qrs. Hl., Vellore	L. F. Dy., Arcot
42	" K. Krishna Rao	leave	Govt. Hd. Qrs. Hl., Chingleput.
43	" Mrs. F. Mathuranayagam	leave	Govt. Hd. Qrs. Hl., Ouddalore.
44	" Mrs. T. Vaithianathan	Govt. Hd. Qrs. Hl., Cuddalore	Govt. Hl., Tirupati.
45	" K. S. Rangasami	Ganjam Agency	L. F. Dy., Arkonam
46	" T. Kothandaramayya	L. F. Dy., Arkonam	Vizag Agency.
47	" K. Jagga Rao	leave	Govt. Hl., Kandukur
48	" B. V. Suryanarayana	Govt. Hl., Kandukur	Vizag Agency

MADRAS MEDICAL COUNCIL ELECTION.

Dr. V. Rama Kamath begs to remind the practitioners in the III Group of the Madras Medical Register that he is seeking re-election to represent them in the Medical Council and requests the electors to reserve their votes for him. Election proceedings will commence next week and the voting papers will be issued in the month of August '34.

HISTORY OF ARSENIC IN SYPHILIS.

The History of arsenic in the treatment of syphilis is divided into two periods; the one before the discovery by Ehrlich, and the other after that discovery.

In the earlier period arsenic was used as a tonic and palliative only. In the later period it was used with a curative purpose.

Round about the time of the discovery above referred to, the two periods were distinctly separated in our minds, but lately the memory appears to have become rather misty.

Today physicians do not appear to be so clearly determined in their mind about these two purposes, which separate the two periods in the use of arsenic. "Because it contains arsenic" is in danger of being considered a passport to efficiency, replacing, as a passport the long period of critical trial to which we used to be accustomed. "Facility of administration" appears to be out-weighing "permanency of benefit" as a reason for selecting one product or another for use.

This change we must regret, reduces the clarity of vision with which we view this serious disease, its prophylaxis and its treatment.

Only a confirmed optimist can hope for any new arsenical compound which will give a reasonable percentage of permanently Wassermann negative results.

The "big three", Arsphenamine, Neoarsphenamine and Sulfarsphenamine still stand out from all new comers as the "Wassermann negative makers".

The chief hope of getting something better still lies in those very slight differences in the manufacturing processes as used by different makers.

Neoarsphenamine A. F. D. is no new compound. The British Pharmacopoeia mentions Neoarsphenamine and gives a series of tests for its identity, purity, limits of toxicity and biological assay.

The B. P. gives as synonyms "Novarsenobenzol" and "Novarsenobenzene". Martindale gives a long list of synonyms including the trade names adopted by various Manufacturers.

There is no novelty about Neoarsphenamine A. F. D. except it be a surpassing excellence of the product.

Neoarsphenamine A. F. D. is used as an intravenous injection in the treatment of Syphilis, Yaws etc., and is to be preferred before others of the same group because of its low toxicity, high biological assay against the Trypanozome, the Treponema etc.

One very obvious advantage possessed by Neoarsphenamine A. F. D. is its rapid solubility, giving increased safety against oxidation during the process of preparing the

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Iron and Quinine in suitable doses have been found to bring about tonic contraction of the muscular fibres of the uterus and the ingredients of Menestrin are so combined that if taken in doses indicated for the purpose and within a week of the cessation of the normal menstruation, they help in bringing about healthy menstrual flow and thus prevent pregnancy. So it is the safest **Contraceptive** that could be taken by mouth and is not harmful to the system.

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The capsules are made of gelatine and should be swallowed with hot water when they are easily dissolved in the stomach. Under no condition the capsule should be opened.

N. B.—Hot hip-bath will aid the action of the capsules; the patient should not expose herself at least for half an hour after the bath. In case the patient cannot afford to have hip-bath she should dash over the lower abdomen hot water at the time she takes her daily bath. There is no restriction about diet.

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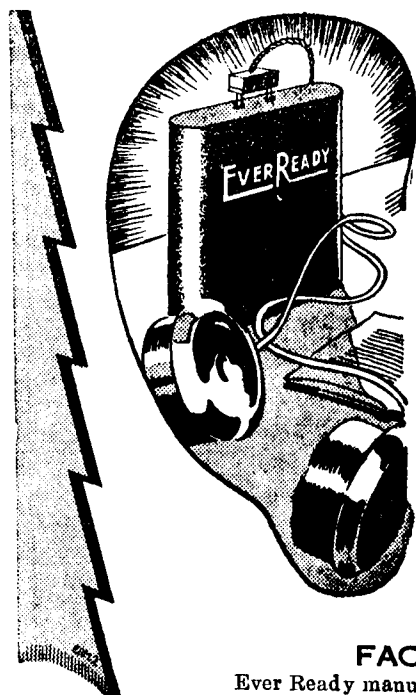
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