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A Monthly Medical Journal

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THE

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A. BANEFUL PROCEDURE.

Our readers might remember that at the instance of Dr. V. Rama Kamath, member Madras Medical Council, this Council passed a resolution in March 1930 informing Government that the practice of having the certificates of private medical practitioners countersigned by Government Medical Officers, was opposed to the principles and spirit of the Medical Registration Act and that the practice should therefore be discontinued. The Madras Government accordingly stopped this practice and in its place introduced the procedure of obtaining a second opinion on the certificates granted by private practitioners by sending the applicants for leave for medical examination either to the District Medical Officer or the nearest Gazetted Government Medical Officer. The Madras Government passed orders on this subject on 30th October 1930 and soon after we commented on this G. O. expressing our opinion that securing of second medical opinion was as objectionable as the practice of obtaining countersignature. Prescribing rest or change or both is part of the treatment required for the well-being of the patient and the medical attendant is more competent to prescribe about the requirements of either or both than the District Medical Officer or any other Gazetted Government Medical Officer both of whom not being expected to know about the condition of the patient to the extent the medical attendent does.

When this G. O. was forwarded by the Government to the Madras Medical Council for information, we were told that Dr. V. Rama Kamath suggested to the Council that the Government be informed that the new procedure was more objectionable than the countersignature as in the former case the Government Medical Officer had to express his opinion with regard to the facts of the illness which opinion was not demanded in case of the countersignature of the certificate. It was also said that the Medical Council did not approve of Dr. Kamath's suggestion. We expected that the medical profession would take up this matter and agitate as interference with their rights and privileges was highly derogatory to their prestige. Excepting at the last two All India Medical Conferences which met at Bombay and Delhi under the auspices of the Indian Medical Association, where resolutions were passed protesting against the procedure of obtaining countersignature, no serious notice has been taken so far either in Madras or other provinces in India regarding this procedure. It is very unfortunate that the medical profession is so callous and does not realise that no body except the members of the profession can effectively guard their interests. The purpose of the Medical Acts is to impart sound medical education to the members of the medical profession, grant them certain rights and privileges and exercise disciplinary control over those who come within the purview of these Acts. The public and the medical profession have a right to demand from the Government the statutory obligations conferred by virtue of the Medical Acts. Granting of medical certificates by registered medical practitioners is one of the

privileges bestowed on such practitioners by the Medical Registration Act and the Government is morally and legally bound not to infringe this right. In Madras the Government has conceded that obtaining countersignature on medical certificates is against the principles and spirit of the Medical Registration Act on the representation made to them by the Madras Medical Council and it is very unfortunate that the Madras Medical Council did not point out to the Government that securing of second opinion was as, if not more objectionable. If the Medical Council protested against the new procedure soon after the Government passed their orders on this subject the Government might have reconsidered their judgment. Silence being considered as half consent the fault lies with the profession primarily and on the Madras Medical Council the legally representative body to voice the feelings of the profession in keeping silent so far without protesting against the new procedure of obtaining second opinion on medical certificates.

The object of obtaining countersignature or second opinion is obviously to prevent corruption. The Government rightly or wrongly considers that they can wield disciplinary control, over their officers more efficiently than the members of the medical profession on whom they have no hold. Such a view was perhaps justifiable before the existence of Medical Registration Acts. It is unfortunate that the Government who passed the Medical Registration Acts, does not realise that the Medical Council has more efficient control than the Government on their medical officers and as good and effective control on the members of the independent medical profession in case they abuse the rights and privileges enjoyed by them by virtue of their being registered. Nobody could say much less the Government that all Government medical officers are above corruption. The procedure of obtaining countersignature or a second opinion on the certificates granted by the members of the independent medical profession naturally implies corruption among the members of the independent medical profession. The remedy adopted by the Government for prevention corruption with regard to certificates appears to be said to be safe. The only safe remedy for putting down corruption is to erase the name of the practitioner either in Government service or private practice from the medical register in case they abuse their privileges with regard to medical certificates. This can only be done by the Medical Council. So, in case any practitioner is suspected of having issued a false certificate he should be reported by those concerned to the Medical Council for necessary action.

In this connection it will not be out of place for us to mention that in many instances the heads of the Government departments are responsible for the demoralisation now existing in public offices with regard to medical certificates. Government servants entitled for privilege leave are not ordinarily granted such leave on other real grounds and are forced by the heads of the departments to produce medical certificates. It is also reported to us that the heads of the Government departments have recourse to obtaining second opinion not because they suspect the varacity of a certificate granted to the applicant who wants leave, but on account of the inconvenience felt by them for want of hands to cope up with the work in the office. So the heads of the departments send their subordinates to Government Medical Officers for second opinion thinking that these unfortunate subordinates might change their mind and not apply for leave on medical certificates in case they are sent to the District Medical Officers as such a procedure was likely to be more costly for the applicant than obtaining a certificate from his medical attendent.

We appeal to the Madras Government to be more rational and reasonable and abolish the new procedure of obtaining second opinion on medical certificates granted by independent medical practitioners and we suggest to the members of the profession to bring pressure on the Government by constitutional agitation. There are at present District Medical Associations in all the districts in the Madras Province and the members of these associations are both officials and non-officials. Opinions expressed by such associations will have the desired effect on the authorities and the Government will be forced to yield to the concensus of opinion expressed by these associations.

Madras often wrongly nicknamed the benighted presidency has been actually more progressive with regard to reforms. The Madras Government has been the first to concede to the representation made by the Madras Medical Council that the procedure of countersignature was against the principles and spirit of the Medical Registration Act and we hope the abolition of the procedure of obtaining a second opinion will be a necessary corollary which will soon be enunciated by the Madras Government. the abolition of the procedure of countersignature. We suggest to the representatives of the medical profession in the medical councils of other provinces to interest themselves about this subject and through the medical councils make representations to their respective Governments to do away with the baneful procedure of obtaining countersignature. Representative Associations should not keep quiet but go on agitating till a uniform procedure is obtained throughout India recognising without exception medical certificates granted by registered medical practitioners.

Original Articles

* A NOTE ON INSTITUTIONAL TUBERCULOSIS.

By

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O.B.E., M.D. MADRAS.

The data on which this paper is based have been obtained from an investigation conducted by me with the sanction of Government on the prevalence of tuberculosis amongst the lower paid staff of a large Printing Press in Madras City.

This tuberculosis survey was taken up in 1931 in connection with the rather too frequent occurrence of respiratory affections amongst workers in the Press, which suggested a possible high prevalence of tuberculosis of the lungs amongst them. The enquiry commenced on 1st December 1931 and was continued systematically till 30th November 1932 and consisted of a complete medical examination of all employees reporting sick for medical ailments and applying for leave for such ailments. For certain administrative and other reasons it was considered inadvisable to examine every individual of the staff consisting of nearly 1500 workers, especially as popular sentiment was rather strong against a tuberculosis survey and it was considered wiser to try and restrict the enquiry to persons reporting sick, on the supposition that persons suffering from active tuberculosis are most likely to report sick at some time or another in the course of the year. The results obtained from the enquiry fairly justified the supposition and the continuance of the survey on a modified basis after 1st December 1932 whereby all operatives complaining of respiratory affections alone lasting three weeks or more were compulsorily sent to me for a thorough overhaul elicited certain interesting facts confirming the views which form the subject of this paper.

Each individual examined was subjected to the usual detailed enquiry into the medical and family history, was tested for Von Pirquet's reaction, was given a thorough physical examination especially of the chest, had the sputum when present examined microscopically for tubercle bacilli and was radiographed for the investigation of the presence of pulmonary lesions especially when he was admitted into the hospital for prolonged observation and regular treatment as an inpatient. By this methodical examination it was possible to arrive at much more definite clinical conclusions than by an ordinary outpatient examination of the individual, which we now know is by no means reliable from the scientific standpoint.

A total of 416 sick employees was examined during the first twelve months and another series of 65 employees with chronic cough lasting three weeks or more subjected to a thorough investigation during one year following the original period of enquiry making up a total of 481 persons examined in 2 years amongst the operatives in an institution manned by about 1500 workers.

Before making any comments on the incidence of tuberculosis in the institution a few remarks have to be made regarding the class of persons subjected to the enquiry. They were all adult men ranging from 16 to 55 years with the average physique of the population of South India. They could not however be considered as identical in

*Paper read at the Medical and Veterinary Section of the Indian Science congress—January, 1935 nd specially contributed to The Medical Practitioner.

all respects with a similar age group of the general population of the City of Madras, for the important reason that they were all individuals selected for service after a regular medical examination and kept under a continuous and systematic medical supervision during the whole period of their service by being sent from time to time to experienced medical officers of the City for inspection and treatment during their illnesses and certified for leave, rest and treatment by these officers according to the rules of the press. The vast majority of them being on less than Rs. 50 per mensem as salary were eligible for free treatment in Government institutions so that a comparison between these operatives and the general population of the same age period and status in life was not strictly justifiable.

Again it was not found possible to draw accurate conclusions regarding the relative prevalence of tuberculosis amongst these Press employees as compared with the general public as no correct figures are yet available of the incidence of active tuberculosis amongst the general population. From the outpatients statistics of the City Hospitals it was moreover impossible to obtain any clear ideas of the prevalence of active tuberculosis in the City, mainly due to the fact that the diagnosis of tuberculosis in the outpatient department of a general hospital, as contrasted with that made in a tuberculosis clinic, could not be considered as accurate. Thus the Government Royapuram Hospital showed that 1 out of 30 cases that attended the hospital had active tuberculosis, the Government Royapettah Hospital showed 1 in 200 to be tuberculous whereas an examination of the Press employees in this investigation showed that 1 out of every 18 that reported sick during the first year was tuberculous. The total number that were examined being about 700 only, no decisive conclusions were justifiable regarding the relative prevalence of tuberculosis and other complaints amongst this class of persons.

Table I shows the relative prevalence of Tuberculous and non-tuberculous medical complaints during the different age periods of the employees examined during the first year of the enquiry when every person reporting sick for medical ailments was sent to me for examination.

Table I.

Age period.	Tuberculosis.	Non-Tuberculosis.	Total.
15—19 years.	nil	11	11
20—24 ,,	11	55	66
25—29 ,,	8	92	100
30—34 ,,	7	66	73
35—39 ,,	5	50	55
40—44 ,,	3	44	47
45—49 ,,	3	35	38
50—55 years and over	1	25	26
All ages	38	378	416

The ratio between tuberculous and non-tuberculous complaints is here seen to vary from 1 to 6 in the age period 15 to 24, 1 to 10 in the age period 25—34, 1 to 12 in the period 35—44, and 1 to 15 in the age period 45 to 55. These figures are no doubt in agreement with the epedemiological features of the disease with a maximum prevalence between 15 to 24 and the preponderance of the disease in the 15 to 35 years period. The total incidence of 38 cases in a population of 1500, taking it for granted that these were all the cases of active tuberculosis at the time cannot be considered as an unduly high prevalence, as figures which are now being obtained in another tuberculosis survey that has been started amongst the general population of the City seem so far to indicate. An incidence of 2.5% tuberculosis which the Printing Press figures show is very likely below the general city figure but this is what one would expect in view of the facts that (1) the Printing Press figures do not include the period of childhood wherein the incidence must be comparatively much higher and (2) the employees of the Press consist of individuals selected by a medical exmination and kept under periodic and close medical inspection.

The number of employees examined during the latter period of 12 months was 63 consisting of such only of the individuals who suffered from cough lasting 3 weeks or more. 26 of these were diagnosed as tuberculous, 2 being cases of glandular tuberculosis, one of bone tuberculosis and 23 of pulmonary tuberculosis of whom 11

were in an advanced stage and died from the disease.

TABLE II.

Age Period.	Tuberculosis. of Lungs.	Pulmonary Non-Tuberculous complaints.	Total.
15 to 19 years PT I—0, PT II—1, PT III—0	1	1	2
20—24 years PT I—3, PT II—0, PT III—2, glands. 2	7	2	9
25—29 years PT I—1, PT II—1, PT III—1, Pleurisy 1	4	9	13
30—34 years PT I—2, PT II—1, PT III—2	5	7	12
35—39 years PT I—0, PT II—0, PT III—2, joints. 1	3	3	6
40—44 years	0	5	5
45—49 years PT I—3, PT II—0, PT III—2	5	6	11
50 years and over. PT I—1, PT II—0, PT III—0	1	4	5
All ages	26	37	63

PT=Pulmonary Tuberculosis.

37 were diagnosed as non-tuberculous involvement of the lungs. The physical examination and skiagraphy of this latter class of cases is of great interest. Most of them showed dense hilus opacities with calcified spots in and around the hilum, evidence of juvenile tuberculous involvement of the mediastinal glands. There was peribronchial fibrosis towards apices and bases, but specially more marked towards the right base in the vast majority of this series and in 11 at least of these there was definite evidence of thickening and dilatation of the bronchial tubes especially at the bases. These cases were characterised clinically by irregular rises of temperature, occasional haemoptysis sometimes severe in character, impairment and dullness on percussion over the affected areas, a pulse in many cases of 90 or over per minute, a certain amount flattening of the chest, sagging down of the ribs and general wasting, clubbing of the fingers to a greater or less extent, in fact all the signs and symptoms which would in the ordinary course of events, lead to a diagnosis of pulmonary tuberculosis on a casual examination.

A careful inspection of the skiagrams of such cases showed heavy peribronchial fibrosis especially at the bases, a diffuse opacity at the affected base or bases not unlike a thickened pleura, a peculiar honey comb appearance of diffuse multiple cavitation due evidently to racemoe bronchiectatic enlargements in the bronchial tubes especially at the bases. Microscopic examination of the sputum of such cases was repeatedly negative for T. B. and there were apyretic intervals in the course of the cases wherein the patient was able to resume work.

Such cases are fairly common in all outpatient clinics, ordinarily diagnosed as cases of pulmonary tuberculosis but really non-tuberculous in nature. They were apparently common amongst the employees of the printing press which led to their being sent over to me for a thorough overhaul.

Whether such cases of bronchiectasis are more common in printing presses and similar institutions than amongst the general population and if so why is a matter for further investigation. It appears very likely that the atmosphere and the work of a printing press, like that of factories and workshops favours the development of pulmonary conditions, definitely non-tuberculous in character, and more of the type of chronic bronchitis and bronchiectasis often vary toxic in nature and associated with signs, symptoms and X-ray appearances very suggestive of chronic pulmonary tuberculosis.

RECENT KNOWLEDGE ON LEPROSY.

BY

DR. I. SANTRA.

Propaganda Officer to the British Empire Leprosy Relief Association (Indian Council.)

Leprosy is older than history. It existed in China and India long before it appeared in western Europe. It appeared in the 6th century and disappeared in the 16th century in the western part of Europe but still exists in the eastern countries which fact seems to refute the theory that it has an epidemic curve. The supporters of this curve believe that at present leprosy in India is on the downward curve because of its mild type specially in South India. This theory does not hold good in case of Japan where the cutaneous type predominate but the number is gradually coming down. Another danger in believing in this curve is that whatever you may do the curve will have its course which I believe amounts to fatalism and is a great discouragement to our social workers. If this curve be true, at the end of the period we should have a few generations immune to the disease but it is not so, as the Europeans coming in contact with lepers in the east develop the disease.

This leads us to the question of immunology of leprosy. Is there any immunity in leprosy and if so, is it racial, natural or individually acquired? It has been mentioned above how the Europeans coming in contact with lepers develop leprosy. This is against racial immunity. If you watch a thousand cases, you find that leprosy has a similar curve like a case of typhoid fever. The symptoms gradually increase and toward the end of the disease, many cases become bacteriologically negative. Relapses in such cases are few. Therefore, we may say that immunity can be acquired but it takes such a long time and confers such deformities that many patients prefer death to such kind of immunity. You must have all noticed how children get it from their parents and must have been surprised by the fact that wives living in close contact with infectious husbands do not develop it. If you take the survey figure for any area, you find less number of women lepers than men lepers. Do females have a partial immunity towards the disease? The consideration of the Lepromin test helps to understand this phenomenon. Nodular emulsion standardized by a special process injected into the skin along with a control injection of rat leprosy in children below the age of three, gives a negative reaction. In neural cases and in adults, the reaction is positive which means that the normal tissue of a person above the age of three has developed a defensive mechanism toward an attack of lepra bacilli. Indian workers are of opinion that this age for Indian children may be ten. As girls marry and leave the house at an earlier age, they have a chance to escape infection. This explains why there are less women lepers than men lepers though I think the explanation is not perfect. In fact, secrecy observed in respect to women is partly responsible for the smaller number in survey figure. In the production of leprosy, we should have three factors: infection, age and debility.

The type of the disease depends on these three factors. Lepromin test tells us that nobody should develop leprosy if exposed to infection after the age of three. This idea will revolutionize our isolation measures because it means that an infectious leper is not a danger to adult community but is so to the children community and more so to his own children. Therefore dissolve the leper asylums and have baby homes for the children of lepers, the babies to stay here until they have completed the age of three. However, there is another factor viz., the debility factor. Though this has not been proved by the Lepromin test, it is presumed because of many getting infection during the adult life. Probably during debility, the natural immunity of an adult is decreased. Thus the type of the case is determined by age, hyper infection and by the presence of debility. As for example, age being below three, contact being a C3 case and child being unhealthy, the case will turn out to be one of cutaneous type and probably will not respond to treatment. Age being 20, contact with a C2 case during a stage of debility, the case probably will be one of the neural type.

But, it has been questioned whether a neural case can infect another. What is the causative organism of leprosy? Is it the acid-fast bacilli discovered by Hansen or a neurophylic ultra-microscopic virus?

body has been able to see the virus but how explain the accumulation of round cells in the papillary area, tuberculoid changes in the nerve fibres of the skin and the presence of round cell infiltration around the blood vessels of the skin, in an early case of leprosy where Hansen's bacilli has not appeared and anaesthesia is yet to develop. In fact, those who study leprosy only through the microscope are of opinion that the acid-fast bacillus of Hansen is only a phase in the life cycle of the lepra bacillus and therefore according to them, even what we call bacteriologically negative case has come round to the virus stage when the virus can propogate itself.

It may be interesting to know something about the acid-fast bacilli of Hansen. Up to this time, no one has been able to culture it. It has not been successfully inoculated to human beings or to animals. If the value of the Lepromin test be true, the inoculation should be made not to criminals going to be hanged but to innocent children who are below the age of three. Such experiments have not been made. The bacilli appears in the leper at a fairly advanced stage. At a much earlier date lipoid degeneration of the affected area is noticed. It is found in all tissues of the body except the brain. The largest number are probably found in the bone marrow. In fact, we may call leprosy a disease of the raticuloendotheliel system. Wherever you get the macro-phage, there you get the lepra bacilli. Thus, in a C3 case you get them in the following order:—

+++ Skin M.M. Nose.

++ Nerve, lymph gland, eye chiefly front part of cornea, iris, sclera, conjunctiva, tongue, larynx, testicles, blood vessels chiefly vein.

\+ Pharynx, spleen, liver, adrenal, bonemarrow.

Slightly+Some ganglion cells, sympathetic ganglion, bone, cartillage, upper part of trachea. kidney, heart, intestines, stomach, tendon (Sp tendoachillis).

Very slightly+lung, ovary.

If that be so, why does he not die. This may be probably due to symbiasis. If we accept the theory of symbiasis to be true in leprosy, it puts the chemist into the difficulty of preparing a drug that will kill the lepra bacilli but not the body cell. Many leprologists believe that because of this symbiasis, we can never have a chemio-therapeutic agent for leprosy but will have to increase the body resistance. Now you can realize how important it is to treat a leper for predisposing diseases, standardize his diet and advise proper habits and exercise.

The treatment of leprosy taxes the brain of the doctor more than any other disease because we have not only have to treat the disease but treat the man. When a leper comes to you, say to yourself this man would not have suffered from the disease had he not been exposed to hyper infection during childhood or devitalized because of unclean surroundings, insufficient diet or the presence of dibilitating diseases. Try to treat these causes. To treat leprosy, you must know the treatment of all diseases.

Hydnocarpus oil is only a part of the treatment. It has stood the test of public opinion for the last three thousand years. The modern chemist shows sign of improving on it. The usefulness of Antimony was greatly enhanced when pentavalent preparations were made. Let us hope that the chemist will be able to give us a similar new preparation of the Hydnocarpus oil.

Leprosy is not a problem to be solved by hypodermic syringes. Dr. Rodrigues, the great leprologist of Philippines who left the segregation island of Culion and came to open numerous out-patient clinics in the island said to me that the problem of leprosy cannot be solved by these clinics but by our schools. Dr. Hayashi told me "we Japanese cannot call ourselves a civilized people until we have stamped out leprosy from our country." Thus the stamping out of leprosy is closely associated with social hygiene which means equalization of the classes in terms of public health. To achieve this we require a band of social workers and a band of medical men of bigger hearts and empty pockets to work whole-heartedly for the eradication of this vile disease.

Abstracts

The Treatment of Bacterial Food Poisoning

By

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Major I. M. S., Burma.

Although bacterial food poisoning is by no means uncommon in Great Britain, it is in the more torrid portions of the world that it takes a really prominent place among the acute medical emergencies met with in practice. The low standard of personal and family hygiene among those who handle and cook food in many warm countries, together with the prevalence of flies and conditions of atmospheric temperature and humidity most suitable for the multiplication of the organisms concerned, lead to the high incidence of the Salmonella type of bacterial food poisoning.

SYMPTOMATOLOGY

Many persons spend years of residence in warm countries without contracting malaria, dysentery, or other characteristically tropical diseases, but few escape one or more attacks of the condition now under consideration.

The following is a typical case from my records:

Of eight persons dining together in Rangoon one night in 1928 only five partook of the savoury, at 9 p.m. All five suffered from bacterial food poisoning—the symptoms showing themselves in Mrs. A. at 3 a.m., Mrs. B. at 8 a.m, Mr. A. at 10 a.m., Mr B. at 11 a.m., and Mr. C. at 4-30 p.m. The severity of the attacks and the rapidity of onset were definitely correlated—Mrs. A. having severe vomiting and diarrhoea and marked collapse, whilst Mr. C. had moderate abdominal pain and diarrhoea, without vomiting and collapse.

It is not only essential, therefore, that medical men practising in such countries should have a firm grasp of the principles of treatment, but it is important that those acting in an advisory capacity to services and firms with men working far from medical help in jungles and forests should issue "first-aid" instructions for the future benefit and protection of their clients.

In severe infections the incubation period is short (two to six hours), and although all those who eat the infected food may suffer acutely, one patient may be very much worse than the others. In such cases it is not unusual to find that the patient most severely afflicted has been suffering from a mild gastro-intestinal upset for some time.

Captain M., aged 25, staying at a hotel in India in 1920, had been suffering from loss of appetite, furred tongue, and mild diarrhoea for over a month without reporting sick. He was wakened early one morning by violent abdominal pain. Severe diarrhoea occured, and the motions, at first coloured, soon became "rice water" in appearance and consistency. Violent vomiting ensued after the purgation had commenced, and a state of collapse was soon reached. The tissues were greatly dehydrated, the condition of "washerwoman's fingers" was noted, and, before losing consciousness, the patient complained of agonizing leg cramps. He ultimately recovered but was confined to bed for three weeks. A number of other guests at the same hotel suffered from abdominal pain and moderately severe diarrhoea without collapse, but in Captain M. alone were the symptoms suggestive of cholera, which diagnosis was excluded by bacteriological examination, an organism of the Salmonella group being held responsible.

The notion that diarrhoea and vomiting may be treated by opiates only dies hard, and much harm has been done in the past by too early and too frequent recourse to the camphorodyne or laudanum bottles, with resulting intestinal stasis, multiplication of pathogenic organisms and their toxins, and rapidly developing toxæmia.

PRINCIPLES OF TREATMENT

The rules to be adopted in dealing with cases of bacterial food poisoning are:

1. Rest in bed.
2. No solid food.
3. Neutralize the effects of toxins already absorbed.
4. Prevent further absorption.
5. Allay the pain.

6. Ensure the removal of the infecting organisms and their poisonous products from the body.

7. Gradually work up the diet from liquid only, through stages of bland, non-irritating substances, to normal.

All but the very mildest cases should be dealt with as bed patients. Warmth is essential—general, as well as local to the abdomen, in the form of hot-water bottles or turpentine stupes. Nothing but fluids may be given by mouth until the diarrhoea has ceased.

The administration of an ounce of castor oil with a few minims of tincture of opium or camphorodyne has formed the basis of treatment for many years, and may still be employed in mild cases. It gets rid of the irritating and infective intestinal contents, and is followed by a number of doses of an astringent mixture. It very frequently happens, however, that the stomach will not retain castor oil or magnesium sulphate, and, in the presence of severe vomiting and collapse, it has been recommended that collapse and dehydration should be combated by intravenous salines, warmth, and opium, before any attempt is made to clear out the gut by means of purgatives. Delay is nevertheless dangerous, for whilst the existing toxæmia is being dealt with the gastro-intestinal condition is getting worse and further toxins are being absorbed.

USE OF KAOLIN

For some years I have completely abandoned the early use of purgatives in bacterial food poisoning, and now rely completely on the absorptive action of the fine kaolin. Kaolin *B. P.* is rather a gritty preparation, does not make a very fine suspension in water, and is somewhat nauseating, but there are on the market a number of fine, smooth, "colloidal" preparations of kaolin which make a palatable and even suspension in water. These are not readily rejected even by the most inflamed and irritated stomach, and they serve to detoxicate the bowel contents whilst soothing and protecting the lining of the gut. In even the most severe cases, therefore, the work of detoxicating the gastro-intestinal contents may proceed *pari passu* with the treatment of the already established toxæmia.

If collapse and dehydration are marked the patient, in bed with warm bottles and blankets, is given gumsaline or Rogers's hypertonic saline intravenously at a very slow rate. If the patient has previously been in a poor state of nutrition glucose may be added to the saline with the advantage, so as to protect the hepatic cells from the action of toxins. At the same time the oral administration of fine kaolin—2 drachms to a wineglassful of water—is commenced, sips being given as frequently as possible. Morphine 1/6 grain to 1/4 grain may now be given subcutaneously without fear of increasing the toxæmia. The amount of fine kaolin which can be retained varies in different cases, but it is generally possible to give 4 drachms of the powder in the first hour of administration; thereafter 1 drachm is given every fifteen minutes, in as much water as the patient will take, until the diarrhœa is controlled. Gastric and colonic lavage, which were formerly practised in cases of vomiting as a preliminary to the administration of castor oil, are, I believe, no longer necessary.

In cases of less severity, without collapse, rest frequent doses of fine kaolin, and large quantities of fluid by mouth, with morphine if colic is severe, result in very rapid improvement. With the introduction of fine kaolin treatment, the use of lead and opium, kino and catechu, and other astringent mixtures formerly used as a follow-up to castor oil administration, can be abandoned. A certain amount of judgment is necessary to avoid the production of constipation by the kaolin, but the judicious use of liquid paraffin or of a saline preparation along with the kaolin, on or after the second day obviates this minor disadvantage of the treatment.

Great care must be taken in building up the diet after the diarrhœa and vomiting have been controlled. There is still too great a tendency to make excessively free use of milk in the early stages. Milk is a solid, not a liquid food. Chief reliance for the supply of calories should be placed on the use of glucose water flavoured with lemonjuice until the acute stage is over.

Thereafter, whey, egg albumen, and Benger's food may be added, and a normal diet be gradually built up with the proviso that flesh and fibrous foods should be

withheld until convalescence is thoroughly established.

CONCLUSION.

A large number of missionaries, forest officers, and jungle employees of timber and mining firms now carry a tin of fine kaolin as part of their regular camp equipment, and reports received from them confirm my opinion that the introduction of fine kaolin is one of the most important advances in practical everyday therapeutics of recent years.

In one case an outbreak of acute diarrhœa and vomiting occurred at a missionary conference in Burma in 1932 within three hours of the evening meal. A number of elderly men and women were affected, and with such an early and acute onset one would, in the pre-kaolin days, have expected severe collapse and a good deal of anxiety in the course of treatment. Fine kaolin treatment was instituted by a missionary before I was summoned, and on my arrival nothing more was necessary than the administration of morphine to two patients and an order to continue the treatment already instituted. All the affected persons were able to leave the station within a few days.

CLINICAL NOTES AND PRACTICAL SUGGESTIONS.

Opocrin Hepar treatment of Pernicious Anaemia.

Although Pernicious Anæmia was long recognised clinically its etiology has not so far been clearly defined. Recently however it has been proved that Pernicious Anæmia is due to the absence of a specific factor, usually produced by the stomach and stored in the liver and this accounts for the successful application of liver therapy in this disease.

It is not infrequently difficult to diagnose the type of anæmia that is present, though diagnosis is very much simplified by the laboratory methods. The blood-picture alone is, not always sufficient, as we have got to take into account the protean character of the symptoms, since the nervous, the gastro intestinal and the circulatory systems of the patient may be affected in the pathological process. Before the actual development of Pernicious anæmia there is present for a long time achlorhydria and subacute combined degeneration of the spinal cord; but the more marked and characteristic subjective symptoms and their increasing severity are all due to the degenerative changes in the blood and it is these that compel the patient to seek medical advice.

The symptoms that are usually present are general weakness, low blood pressure, hæmic murmurs, languor, anorexia and dyspnœa. Sometimes the patient runs a temperature. All these symptoms are mostly found in fairly advanced cases. The patient seldom loses fat despite rapid progress of the disease. The characteristic lemon tint of these patients is due to the circulation of bilirubin in the blood. The tongue also has a characteristic appearance. It is sore and due to the destruction of the papillæ and the absence of the rugae of the lingual mucosa in several places it has a glistening atrophic appearance.

In the majority of cases achlorhydria is almost invariably present in Pernicious Anæmia. In fact the disease begins with this symptom. The Spinal Cord is also involved long before the development of anæmia. Mostly the posterior and the lateral columns are affected jointly or separately. Various types of paræsthesia, numbness and tingling in the extremities are the symptoms resulting from degeneration of these tracts. Sometimes these symptoms persist even after the cure of the disease.

The disease mostly attacks persons in middle life although certain cases occurring in infants and children are reported. Its familiar incidence should not be overlooked, as many as two or even more cases have occurred in one family.

Blood examination should at once be carried out when the patient is suffering from achlorhydria, sore tongue, pallor and general weakness, numbness and tingling in the extremities. The blood picture reveals many interesting changes. There is reduction in the number of erythrocytes, less than 10 lacs per cubic millimetre. The hæmoglobin index is not much decreased. The red blood corpuscles are destorted in shape and vary much in size. Megalocytes are present in considerable number. Blood platelets are very much less and there is generally leucopenia. A small percentage of reticulocytes is usually present which shows the efforts of the bone-marrow towards erythropoiesis.

As regards diagnosis Pernicious Anæmia is simulated in many respects by Secondary Anæmias due to other causes. Although the blood-pictures are almost the same, there is no persistent achlorhydria and subacute combined degeneration of the Spinal Cord in Secondary Anæmias. Another disease which resembles Pernicious Anæmia is Sprue, but history of residence in the tropics, light-coloured stools of the diarrhoeic type, emaciation are some of the salient features which distinguish it from Primary Anæmia. Secondary Anæmia as a result of Dibothriocephalus Latus is very severe and is confounded with Primary Anæmia. Isolation of the ova and segments of the worm from the stools of the patient make the diagnosis quite clear and easy. Severe secondary anæmias following cancer or non-specific acute or chronic infections present a blood-picture, which resembles that of Pernicious Anaemia, but these have generally some exciting causes or certain differential points which distinguish them from this Primary Anæmia.

As a result of the first clinical application of liver and its derivatives by Minot and Murphy in this disease, which was considered a decade ago as incurable and fatal,

Pernicious Anæmia today has been brought in the list of controllable diseases. Since the continued daily consumption of half a pound of raw or partly cooked liver proves a serious impediment to its use, we have now at our disposal a simple and effective method of treatment of this previously considered fatal disease. We have in Opocrin Hepar the effective material in small bulk. These opocrins as well as the ampoules are prepared in a highly purified state and they provide a convenient and palatable method of effective liver therapy for Pernicious Anaemia patients to whom the continued use of large amounts of liver is either distasteful or intolerable.

The patient even with severe type of Pernicious Anaemia respond to this Opocrin Hepar therapy promptly and satisfactorily. Following a week of this line of treatment the patient feels better and his general appearance is improved remarkably. There is a rapid and continuous increase in strength, appetite and sense of well-being. Nausea and vomiting, if there is any, disappear and other symptoms, such as soreness of the tongue and the mouth are no longer seen. The patient after about two weeks develops real and intense hunger.

The objective signs of improvement also are soon visible. There is appearance of pink flush at the finger tips and the nail-beds. The pallor disappears and gives place to rosy tint all over. The icteric tint of the skin and the scleræ after two weeks of this Opocrin Hepar treatment entirely disappears and the normal colour of the skin is restored. The chief feature of the remission is the remarkable increase in the formed elements of the blood derived from the bone-marrow. The increase is most evident after six to eight weeks of this treatment. The red-blood-cells increase by 2 to 5 lacs per cubic mm. of blood every week. The reticulocytes appear in greatly increased numbers in the blood, a week after beginning the treatment. These disappear soon after and are again present in the blood in normal percentage. This reticulocytesis is due to the stimulating effect of Opocrin Hepar medication and it denotes the release of a larger number of red blood cells from the hyperplastic bone-marrow. Under Opocrin Hepar treatment it is therefore almost always possible to rapidly increase the number of erythrocytes and reticulocytes as well as the hæmoglobin content, likewise improving the general condition and stimulating the appetite. There is rapid increase in the weight of the patients. An average case takes about 2 to 3 months to completely recover. Despite the complete cure, one sometimes comes across cases where achlorhydria persists. Although it is much under control during this Opocrin Hepar treatment, still as soon as the treatment is stopped, it troubles the patient again. Hence it is always advisable to administer dilute hydrochloric acid daily in drachm doses thrice a day. Regarding the neuro-degenerative injuries there is a great deal of improvement under Opocrin Hepar regime. At least their progress or further aggravation is stopped. There is however decided improvement in the mild nervous disturbances, in muscular co-ordination and sensory disorders. This much can be definitely said about this treatment, that the patients are left with minimum disability due to permanent organic damage. There is also a gradual return of the functions of the parts affected. This improvement in the symptoms is considerably accelerated by physio-therapy such as massage and active and passive movements. Opocrin Hepar is clinically tested and is uniformally reliable. The Opocrins are practically without odour or taste. This preparation is also available in ampoule form and is known as Hepar ampoules. Each Opocrin contains 0.15 gm of the extract of liver and the ampoule contains 0.05 gm with normal saline up to 3 cc. The dosage of either the Opocrins or the ampoules is determined by the condition of the patient, large doses being desirable for patients with very low red blood cell count. Adequate doses bring about appreciable improvement in a very short time. The only important point worth bearing in mind is that the treatment should not be discontinued even when the condition of the blood becomes normal, because relapses are very likely to occur sooner or later. The Hepar ampoules are decidedly more effective than the Opocrins in Pernicious Anæmia. The advantage of the injections is that the treatment can be carried out without causing gastric disturbances. At the same time more intensive therapy can be accomplished by means of these injections. Blood transfusion can also be obviated in many cases by this line of therapy. In fact the intramuscular administration of this preparation is more satisfactory and effective, the technique being quite simple and without any unpleasant reactions, local or general. This parenteral therapy obviates irritation of the gastric mucosa and it can be carried out in patients who would otherwise not have tolerated any kind of liver therapy. When the patient requires prolonged treatment these injections should be supplemented by oral therapy by means of Opocrins. In general the main principles of successful treatment of Pernicious Anæmia are the use of Hepar ampoules supplemented by Opocrin Hepar in adequate dose and for sufficiently long period. This treatment should be combined with daily doses of dilute hydrochloric acid in drachm doses. The best method of demonstrating the efficacy of Opocrin Hepar and Hepar ampoules is to give a full report of a case which the author had the good fortune to treat successfully. The patient, a man of 50, came complaining of general weakness, poor appetite and extreme exhaustion. He gave history of gastric disturbances and burning sensation in the tongue for the last one year. On examination it was noticed that there was tingling and fornication of the fingers. Loss of weight and appetite was marked. The patient had typical yellow colouration of the skin and a good deal of soreness of the tongue. On percussion the area of dullness of the heart was quite normal but auscultation revealed a systolic murmur. No abnormalities were found in any other organs. Blood count sent by the pathologist was Red-Blood-Cells, about 12 lacs per cmm, haemoglobin 31 per cent and colour index 1.2. Leucocytes were 3140 nearly, of which 3 per cent were mast cells, 42 per cent polymorphs. 1 per cent eosinophils, 1 per cent monocytes, 40 and 10 per cent small and large lymphocytes respectively. The red cells showed distortion as well as poikilocytosis. Megaloblasts and megalocytes were also present. There were about 3 lacs of blood-platelets. This detailed and clear blood-picture revealed that the case was one of Pernicious type of anæmia and he was accordingly injected one Hepar ampoule supplemented by 8 opocrins by the mouth daily. The usual dilute Hydrochloric acid with pepsin was given. The progress that the patient made on this line of treatment was simply remarkable. The patient's blood-picture improved. There was steady increase in the number of red-cells and disappearance of the nucleated reds. The reticulocytes rose rapidly to the maximum on the eighth day of the treatment and subsequently declined as the cells became more mature. After a month of this treatment the Hepar ampoules were injected every other day and the Opocrins continued, 8 per day. The patient was showing steady improvement also in the stomach symptoms as could be seen from his excellent appetite and good digestion. The neurodegenerative signs were better. He had a satisfactory blood-count and is at present in excellent condition, but he is still under treatment. No hard and fast rules can be laid down as regards the dosage of Opocrin Hepar or Hepar ampoules. Each case deserves individual dosages according to the severity. This simplified treatment will prove obviously useful to the general practitioner who has very little time at his disposal to carry on elaborate methods of treatment.

Convalescence.

It has been pointed out that there is a basic physiological disturbance characterising the convalescent state. The main disturbance is in the general non-specific cell activity together with the defective functioning of the vegetative nervous system. As a result of this disordered metabolism and break-down of the dynamic system there is lack of strength, apathy and psychic inertia. Convalescence following diseases is in general a temporary disturbance in weight, which has been described according to the constitutional conditions and according to the kind and severity of the disturbing causes. In this condition the changes in the vegetative system, in the nervous system and in the involved organs play an important part. The clinical symptoms therefore of convalescence are many and varied. Several patients experience for some months after illness a decreased ability to work and a lowered resistance against harmful exterior influences and infection. Most of them feel weak and nervous a long time after their illness and complain to the doctor of a 'Run down' feeling. Along with this general asthenia there is a low systolic tension, a persistent subnormal temperature and acidosis. The patient passes urine

with a low urea content. The return to normal strength and adequate functioning of the whole organism may be measured by any of these manifestations. As regards the pathology of the condition some endocrinologists attribute delayed convalescence to the depletion of the adrenalin glands i.e. to hypoadrenia. We are aware that the adrenalin glands act in a two-fold manner. They throw out in the system a certain anti-toxin which combats both the endogenous poisons and the exogenous ones. Another function of these glands is that they restore the tone of the vascular system. Although good results have been obtained by the administration of the extracts of these glands many clinicians are inclined to believe that the effect is transitory and that it wears off in a week or ten days. Treatment of convalescence with these gland extracts is not a rational type of therapy. We must therefore find out a means of treatment which will provide a most dependable method of increasing the reactivity of the vegetative nervous system and raising cell metabolism which are basic to the condition.

Many general practitioners do not regard these cases seriously and they are inclined to dismiss the patient with some tonic or other which comes uppermost in their mind at the moment. These commonly used tonics or stimulants mostly contain ingredients such as alcohol, caffein, kola, strychnine, quinine etc., but these stimulate the system temporarily without in any way improving the organism. Alcohol, for instance, although at first it stimulates the system, when pushed on for a long time paralyses both the cardiac and the respiratory centres. Caffein has a tendency to increase blood tension but unfortunately the action is not continuous. Under its prolonged use the pulse wave is greatly lessened but high tension ensues. Similarly under strychnine exhibition for a long time the vaso-motor centre is stimulated with the subsequent rise in blood pressure. The drawback of this remedy is that the effects are rapidly perceptible and also rapidly disappear. Quinine when given for a long time reduces the strength of the heart's contraction. Lowering of blood pressure is almost the rule under continuous Quinine regime either from paralysis of the vaso-motor centre or due to its effect on the cord. The stimulant effects of Quinine too pass off quickly as can be seen from its elimination from the system in 6½ to 24 hours. Again many persons are peculiarly susceptible to Quinine. Similar is the case with Kola nut. Though it produces mental and bodily stimulation the striking point about it is that there is a different reaction with different individuals. We must therefore prescribe a tonic which will have beneficial influence always. Fer-Ma-Pho is very useful for this purpose as it contains none of the ingredients mentioned above and as its well-balanced composition has proved specially helpful in restoring the normal metabolism and the tone of the vegetative nervous system.

One should never expect with Fer-Ma-Pho an immediate effect in Convalescence, as its composition precludes any anticipation of the kind. It ensures, on the other hand, a steady and consistent restoration of cell metabolism and nervous energy and tone and this tonic action is sustained for a considerable period. Fer-Ma-Pho combines in it the best colloidal complex of assimilable iron with manganese and phosphorus. The physiological effect of this combination is one of definite promotion of oxidation and consequent liberation of energy. It is therefore of excellent value in the convalescent period which is basically dependent on suboxidation. It helps regeneration of the tissues damaged by the toxins of the disease, improves appetite and decreases the nervous irritability. The subjective sensations soon benefit and there is a concurrent improvement in the objective output of the organs. In the lowered metabolism of convalescence Fer-Ma-Pho stimulates metabolism, maintains normal cell-activity, permits cell-repair, restores the normal tone of the vegetative nervous system and helps excretion of normally formed nitrogenous waste products. Its constant and definite action due both to the fine blending of easily assimilable forms of iron, manganese and phosphorus is therapeutically very valuable in convalescence which is usually characterised by lowered metabolism and general debility. Its tonic action is not a mere stimulation of subnormal mechanism to greater activity but it brings about permanent restoration of the tissues and the organs to the normal tone. Fer-Ma-Pho is in short a reconstructive tonic based upon sound pharmacological principles.

Notes on Therapeutics, Diagnosis and other Medical Subjects.

Syphilis in Practice.

Dr. MacCormac thinks that syphilis is quite commonly met with in general practice, but the practitioner often misses the cases because by syphilis he always thinks of the early cases. He (Dr. MacCormac) thinks that the syphilitic taint is far more prevalent than is supposed and that the disease is not on the decline. He asks the following dictum to be borne in mind: "Early syphilis is communicable and curable whereas late syphilis is not communicable and only cured with difficulty and in exceptional cases." Syphilis is readily transmitted through the mucous membrane during sexual intercourse and in kissing but apart from this the risk of infection is apparently inconsiderable. The importance of this lies in many domestic problems, *e.g.*, the domestic servant or the baby's nurse who may easily communicate her disease to the baby.

For the cure of syphilis we have the definite specifics, Arsenic, Bismuth and Mercury and for checking the results of our treatment a delicate test like the Wassermann. Early syphilis is curable provided a systematic line of treatment is adopted. The duration of the course should be 2 years and the patient should be observed from time to time. The treatment consists in giving Neo-Salvarsan starting with 0.3 gm. as the first dose, followed by 9 injections of 0.6 gm. each, given weekly. This is followed by 12 weekly injections of either mercury or bismuth intramuscularly. The course is repeated for 2 years with an interval of one month in between the 2 courses. With this line of treatment Dr. MacCormac reviews 1000 consecutive cases, out of which only 121 proved useful for analysis. He finds that of the patients treated in the primary stage 60% were cured while those treated during the secondary stage 81% showed a cure. Cure may be presumed when the Wassermann remains negative after the first course and subsequently remains so for 2 years. Exceptions of course there will be.

Late Syphilis

The communicability of late syphilis depends on the sex of the individual and the period of the infection. Thus a man infected 10 to 15 years previously need not be afraid of syphilis-tainted children, though his Wassermann may be positive. A woman, however, will transmit the disease to the children although she will not infect the husband. The progeny will escape infection if the mother is adequately treated. Late syphilis can be divided into (1) Cardiovascular, nerve and visceral, (2) Cutaneous, (3) Serum-Positive cases without any other sign. Bismuth, rather than mercury, is the main line of attack. In the first group, only the advance of the disease can be checked since the damage done to the parts cannot be completely eradicated. First Bismuth should be given and then Arsenic, for fear of a focal reaction. Improvement in these cases is shown by the decrease in symptoms or by the diminishing strength of the Wassermann. The second group with cutaneous lesions is much more fortunate since the patient usually escapes affection of the central nervous systems though instances with both the manifestations are not unknown. The lesions heal remarkably rapidly with Arsenic and since the nervous system is and will remain unaffected, the course need not be as prolonged. In the third group of cases, serum-positive without any other signs, the treatment will depend upon the age of the patient. If young the full curative treatment should be tried. If old he should be left alone.

(*British Medical Journal*, July 21, 1934)

Headache-Syphilitic and Dyspeptic.

Those syphilitics who have not been treated during the primary stage are very prone to suffer from headache as a consequence of meningo-encephalitis or periostitis of the cranial bones. This symptom is also met with in the tertiary and parasyphilitic stage. Because of the efficacy of modern antisyphilitic remedies, any headache in a patient who has submitted to a systematic course of treatment in the first two stages, needs further investigation, as it cannot be due to syphilis. Losing sight of this possibility one is liable to put the patient through a further course of treatment which will do him more harm than good. Nicolas and Rousset after reporting cases, mention the following as aids to diagnosis between syphilitic and dyspeptic headache. A dyspeptic complains of a

sensation of fullness and heaviness in the stomach, anorexia, pyrosis and there is sometimes a history of errors in eating. The dyspeptic headache starts after midnight and continues till waking being aggravated by a breakfast in bed and relieved by a fast. It is frontal at the start and then spreads to the occiput. It disappears spontaneously during the morning if no food is taken. Further there is no positive evidence of syphilis, serologic or otherwise. The specific type is first of all associated with other positive biological findings. It is most severe in the evenings and at night it is not localised but generalised. It is severe, accompanied with a sensation of pressure and often with a feeling of lancinating pains.

(*J. Med. Lyon.* May 20, 1934.)

Diabetic or Hypoglycaemic Coma?

Professor Umber points out the important distinguishing features of diabetic and hypoglycaemic coma. In the former, the coma does not set in suddenly but develops in the course of a few hours or days. It may be brought about by cessation of insulin injections, and infection, over-exertion, or gastrointestinal disturbances. The characteristic features of diabetic coma are the smell of acetone in exhaled air, Kussmaul's breathing, (maximally deep and yet accelerated) low tissue tonicity (hypotonia of the eye balls), weakness of the circulation with decreasing blood pressure (small, soft pulse which can be easily suppressed), redness of the face, dryness of the skin, ketonuria, a high sugar content of the blood and urine. When insulin is already given, the urine is poor in sugar and acids, whilst on the other hand moderate decree of hypoglycaemia does not exclude coma due to Insulin. In the pre-comatose stage pseudoperitonitic symptoms which are attributed to toxic irritation of the coeliac plexus may predominate and may be mistaken for gastric ulcer, appendicitis, pancreatitis, resulting in a laprotomy being performed.

Hypoglycaemic coma is characterised by moist skin and profuse sweats ; a somewhat retarded, strong and slightly irregular pulse absence of Kussmaul's breathing, acetone odour in the breath and low tension of the eyeballs. Diagnosis is easy if the patient has taken an insulin injection 3 to 5 hours before and has felt quite well until then. The tendency to spasms is commoner with hypoglycaemic rather than with coma from acid intoxications. Babinski's phenomenon is more often present with the insulin varieties rather than with the diabetic coma. Urine may contain a moderate quantity of sugar and acetone if it was mixed in the bladder with urine secreted before the attack. High sugar values and a strongly positive iron chloride reaction speak for diabetic coma.

When treating a case of coma, in event of doubt, the patient should first be given grape sugar only, preferably 20 to 40 cc. of 50% solution (Merck's sterile ampcules) intravenously. If it is a case of insulin coma it usually subsides in 10 to 15 minutes. Should this not occur Insulin should be given (50 units intravenously and 50 hypodermically) every two to four hours with grape sugar and cardiac stimulants as strophantin, caffeine etc. The prognosis depends with timely application of the said measures. There is not much hope of saving a patient whose coma has lasted for more than eight to ten hours.

(*Ars Medici*, June 1934).

A Fourth Malarial Parasite ?

Three parasites of malaria are commonly recognised viz., *Plasmodium Malariae of* quartan, *P. Vivax* of tertian, and *P. Falciparum* (in Germany termed Immaculatum) of malignant tertian fever ; but as Prof. P. Muhlens mentions in a recent paper others have been observed and named. He quotes Ahmed Emin's *P. Vivax* var. minutum (1914), J. W. W. Stephens's *P. Tennue* (1914), Marzinowsky's *P. Caucasicum* (1916) von Ziemann's *Laverania Perniciosa* (1917) and finally Stephen's *P. Ovale* (1922). The last named, reported first by Stephens from East Africa, has been since observed in 1927 by Stephens and D. U. Owen from Nigeria, by W. Yorke and Owen from Nigeria (1930). From another case of Yorke's found in the Belgian Congo, S. P. James. W. D. Nicol, and P. G. Shute infected *Anopheles maculipennis* (the oocysts in its stomach were distinguishable from those of the other parasites) and from these mosquitoes men were infected and in their blood the *P. Ovale* was again seen. In 1933 Schwetz and his helpers, also Rodhain reported it from the Belgian Congo, and in the same year N. H. Fairley from West Africa and P.H. Manson-Bahr from Uganda. *P. Ovale* has thus been reported eight times in 12 years. During a course in the tropical medicine school at Hampurg last autumn, Dr. Muhlens, the director, chanced upon a case that was being shown to the class as clinically tertian, but which after examination of the thick drop was regarded as quartan though the parasites were not quite typical. Schuffner's dots being well marked. In the smears however the parasites seemed rather to resemble *P. Ovale* being small, compact, early dividing never with more than eight merozoites, almost always in enlarged red corpuscles, themselves showing marked Schuffner's dots. There was notably little pigment, and the edges of the infected corpuscles were irregular and fringed. Dr. Shute, who was on a visit to Hamburg, recognised them as *P. Ovale* ; at his request preparations of Yorke's parasite were sent for comparison and found to be identical. This Hamburg patient came from West Africa—in his ship were other malarial cases, three malignant tertian, one quartan—his fever was thought to be tertian and, as in other *Ovale* cases, it was noticed that his pyrexial attacks came on in the evening or at night. He reacted at once to atebrin, was free of parasites in three days, and when re-examined after five months was found to have been quite fever-free in the interval. Attention having been directed to this case, three others were discovered, two from Nigeria during treatment, one from the west cost of South America, clinically supposed to be a double tertian. Dr. Muhlens is satisfied that the parasite seen at Hamburg is that reported and named by Stephens. Whether or not it is a fourth parasite of malaria he has not quite made up his mind, though he inclines to believe that it is a form intermediate between *P. Malariqe* and *P. Vivax.* The oval enlarged red corpuscles in which it occurs are never associated with ordinary tertian infections. The paper is well illustrated with microphotographs and coloured drawings.

(*Lancet*, *Nov.* 10, 1934).

News and Comments.

Institutional Tuberculosis: We draw the attention of the profession to the interesting original article published in our current issue under the caption "Institutional Tuberculosis" contributed by Dr. M. Kesava Pai the retired Superintendent of the Government Tuberculosis Hospital and Director of the King Edward Memorial Tuberculosis Institute, Madras. The heading of the article does not convey the idea of the conclusions arrived at by Dr. Pai of the existence of the lung conditions which though they may show signs and symptoms of Tuberculosis of lungs, are not due to Tubercular infection. The profession is familiar to the fact that Tuberculosis of the lungs may go undetected during the life time of patients and found out only at the autopsies. Want of facilities of conducting post mortem examinations in hospitals in this country is a serious drawback for the advancement of medical science. All the same the conclusions arrived at by eminent and experienced workers deserve the attention of the profession especially regarding diseases such as Tuberculosis.

Recruitment to I. M. S.: The I. M. S. service was the subject matter of a series of interpellations by Dr. T. S. S. Rajan on the floor of the Legislative Assembly on 21-2-35 and later Hon'ble Mr. Mehrotra moved a resolution in the Council of State urging the Government to recruit I.M.S. officers by open competition in India and to put a stop to the present method of recruitment by selection. Dr. Rajan's interpellations and the supplementary questions from Drs. Deshmukh, Sir Henry Gidney and Mr. Satyamurthy elucidated information that 1031 Indians with only Indian qualification have been recruited on temporary I.M.S. commissions since 1914 and of these only 68 had been taken into permanent service and just at present about 45 Indians held temporary commissions and that the proportion of two to one between the European and Indian element was now being maintained. Answers were also given on behalf of the Government that only five candidates with Indian qualifications were recruited during the past 4 years as against 22 with foreign qualifications and that the European I.M.S. were permitted to retire on gratuity after 5 years service whereas the Indian I.M.S. were not given the gratuity in

case they retired after 5 years period of service. Excepting the possibility of the ratio of 2 to 1 European to Indian, was likely to be reduced on account of the impending new constitution, the Government did not hold out any hopes of any change in their policy regarding either the method of selection now employed in recruiting entrants for the I.M S. service or regarding their intention to do away with disparity now existing in the services between the Europeans and the Indians. Hon'ble Mr. Mehrotra's resolution in the Council of State met with a worse fate as that House rejected the motion by a large majority. Vested interests seem to be a disease which cannot either be prevented or cured by the present system of Government and the only hopeful remedy seems to be a change in the system and unless and until India attains Swaraj nothing can be ventured nothing gained either by interpellations or resolutions on such topics.

Commendable Example : The Governor of Bombay declared open on 12-3-35 a new wing of the Sir Harkisondas Norrotumdas Hospital at Charni Road, Bombay. This hospital was founded in 1925 with 40 beds out of funds donated by the late Sir Harkisondas Norrotumdas and by the careful management of funds which were increased by public subscriptions, the Managing Council of the Hospital was able to increase the accommodation to 140 beds including the 20 beds occupied by the wing opened by the Governor. The Hospital buildings cost in all Rs. 7,91,000 while the Hospital Funds amounts to Rs. 20,00,000. The income of the Hospital last year was Rs. 1,62,000 while the expenditure amounted to Rs. 1,27,000. We cannot do better than quoting extracts from the speech of H. E. Lord Brabourne about the good work turned out by this Hospital under Indian management.

"Lord Brabourne said the hospital was a striking instance of an institution which, since its inception, had been so ably conducted by private venture and by private funds. Of the several features which had greatly impressed him the first was the very rapid and almost phenomenal growth of the hospital since it was opened barely ten years ago.

The second feature was the efficiency with which the management of the institution had been conducted. "I am assured by the Surgeon-General," he added, "that the Sir Harkisondas Norrotumdas Hospital is one of the most up-to-date hospitals in Bombay. Nor do I think that any of us who have read its annual reports, or have noticed the distinguished list of its honorary physicians and surgeons, could think otherwise."

As an institution which had been conducted by private funds without any State aid, Lord Brabourne commended its example as one to be followed and one which was worthy of the highest ideal of charitable work in the Presidency or in India." In doing so I would like to draw attention to another example which it has furnished, I mean that of giving the same treatment of rich and poor alike in accordance with their means. I speak feelingly on this point, for it is a principle which should govern the distribution of all medical relief, but is nevertheless one which it is often very difficult to attain."

The Hospital is a tribute to the managing Council of the hospital and also to the Honorary Medical officers without whose disinterested work the hospital would not have been able to command the confidence of the rich as well as the poor alike. If there are not many hospitals in this country run by voluntary contributions the fault is in the present system of hospital administration. If the Government entrusted the management of the hospitals to popular control, it would have been possible to afford the public better in-patient accommodation on a much larger scale than obtaining now. At present fabulously large amounts are spent on salaries of medical officers, which might have been more advantageously utilised for the treatment of patients, the paid officers being replaced by honoraries. We trust H. E. The Governor of Bombay has realisd that Indians are capable of managing hospitals in the way it is being done in the country of his birth and would try to alter the policy of the medical administration in his province so that for the money now spent by the Government proportionately larger number of patients get the benefit of scientific treatment.

Hospitals are State Enterprises : His Excellency Lord Erskine the Governor of Madras presiding over the fortyfifth annual meeting of Young Men's Christian Association on 20—3—35 in his concluding speech observed,

"I do find, coming new to India, perhaps very properly, that the State in this country takes a far larger share in the activities of its citizens than it does in Great Britain. I would only just give one small instance; In this country practically every hospital is supported

by the State out of the tax-payers' money. Hospitals are mainly State enterprises. In England there is practically no hospital that is maintained by any money from the State. These vast and excellent institutions are entirely maintained by private subscriptions and the State has practically nothing to do with them. It may be that that state of affairs would be impossible here. I merely mention that fact to show that great differences do exist in the purview of the State between the two countries. I also think that if we leave everything to be run by Government departments those departments are apt to become soulless machines. We hear very often of the 'dead hand' of the State. Many people talk of 'red-tape' in Government departments and the time taken the Government to get things done. It may well be that private institutions work quicker and with less friction than bureaucratic machines. I am quite certain, as the Vice-Chancellor said, that there is, in this country, a tremendous amount of room for private social enterprise."

We wish to point out to His Excellency most respectfully that the system of Government in this country is mainly responsible for the apparent callousness on the part of the public in not taking as much interest in the activities of citizenship as in Great Britain and other civilised countries where the public enjoy freedom. The causes for the running of hospitals entirely as state enterprises are not far to seek. With the advent of the British in this country the Allopathic system of Medicine was introduced and to popularise this alien system the Government brought into existence dispensaries and hospitals which were manned by the Government paid medical officers and it was quite a natural consequence that the public rightly thought that it was the concern of the state to run these institutions from out of the taxes paid by them. Indians cannot be said to be wanting in their capacity to run and manage concerns of public utility whether they be hospitals or anything else nor are they less philanthropic than their brethren or sisters in other parts of the civilised world. The History of Sir Harkisondas Norrottamdas Hospital in Bombay as narrated by His Excellency's brother Satrap at Bombay and referred to by us above would, we believe, convince H. E. Lord Erskine that given opportunities the Indians are capable of conceiving lofty ideals enunciated by His Excellency "Service and not self is the main object of human life and individual happiness comes from service to others". There will be less room for pessimism regarding the possibilities of management of charitable medical institutions by the public instead of by the state as at present if His Excellency makes it possible for his Government to change the angle of vision. Let His Excellency take the initiative of entrusting management of state hospitals entirely to the public under the guidance of the Government and time will not be far that further expansion of hospitals will be taken by the public themselves. The State is only an intermediary to spend the money collected from the public for their benefit whether it be for hospitals or anything else. Large amounts of money are now spent for paying the officers of the Government who serve as intermediary between the public and the various public institutions through which the Government serves the public for doing social work. There are bound to be some difficulties at the initial stage of devolution of power from the Government officials to private agencies but all those difficulties are worth undergoing by those who really wish the public in this country should take real interest in social service of public utility. Will His Excellency try the experiment suggested by us?

Fee-Splitting in State Hospitals: On 20—3—35 at the Madras Legislative Council the Hon'ble the Chief Minister in charge of Medical Portfolio was asked series of questions regarding the fees collected from patients in State hospitals and the answers were to the following effect:

Forty per cent of the fees realized from private patients treated in the Bernard Institute of Radiology, Madras, is credited to Government and the remaining 60 per cent is distributed among the staff.

The fees realized for private pathological analytical and bacteriological work are credited in full to Government in the first instance and subsequently 40 per cent of the fees is paid to the staff.

L. O. Diploma.—Seventyfive per cent of the fee for training is paid to the Superintendent of the hospital and the remaining 25 per cent is credited to Government.

L. G. O. Diploma.—Seventy-five per cent of the fees is credited to the Government and the balance is distributed among the staff.

Special Tutorial Classes in Ophthalmology, Gynaecology and Obstertrics.—The classes are held outside the ordinary hours of work. The entire fee is given to the staff concerned subject to the condition that 25 per cent of the fees realized should be credited to Government if any apparatus or materials belonging to

Government are used in connection with the classes.

Answering a supplementary question put by Mr. V. T. Arasu, the Hon. the Raja of Bobbili stated that the staff and Superintendent of the X-ray Institute were paid a monthly remuneration and also a part of the fees collected as it was considered that the duties devolving on them were arduous and dangerous.

From the answers it is clear that there is no uniformity in the matter of distribution of fees to the staff. The percentage of fees given to officers seem to depend upon the person and not the bulk or responsibility of work. All the officers who receive commission are whole time officers of the Government and the work they do is during the working hours of the institution. It may be that the work in these institutions has been increasing but to that extent the staff also has materially increased. Post-graduates undergoing training for L. O. diploma at the Ophthalmic Hospital and the L. G. O. diploma at the Government Maternity Hospital are not given lectures, free at these institutions as could be seen from the answer that the post-graduates have to pay special private fees to the staff in case they wish to have special lectures and the whole fees collected on this account goes into the pocket of the officers. So long the hospital staff do not engage themselves to teach the post-graduates free there is no justification for the payment of a large portion of the fees to the staff. The fees collected from students in Medical Colleges or Schools are not distributed to the staff on any percentage.

Why the fees collected from the post-graduates should be splitted to be paid to the staff of the institutions where they receive training is beyond our comprehension, especially as the staff do not engage themselves in teaching the post-graduates unless they are paid a special fee to them. It is desirable that both in the interest of the public, the institutions and the staff the system of fee-splitting in state hospitals should be done away with as this leads to demoralisation of all concerned.

Private Clinic run by Government Medical Officers: On 21-3-1935 Mr. N. K. Beyabani Sahib Bahadur Member, Madras Legislative Council asked the Hon'ble Minister in charge of Local Self Government several questions regarding a clinic run by the staff of the Government Ophthalmic Hospital in Madras. The Minister said that there was a private eye clinic not far from the Government Ophthalmic Hospital which he said was run by the Sub-Assistant Surgeons of the hospital and that the Superintendent of the hospital permitted them to do so. Answering a supplementary question from a member of the Council whether such a system of running of private clinics by the staff of the hospital would have demoralising effect on the patients and the staff, the Minister said that the whole question was under his consideration. The following day the Minister in the course of his answer to the criticisms levelled against him with regard to the Medical services said that the running of Nursing Homes by Government Medical Officers was most objectionable and that he would take necessary action to prevent such abuses in future.

On several occasions we have given expression to our views about this vexed question of the running of Nursing Homes by the Government Medical Officers and said that this was one of the most objectionable abuses of the rights of private practice allowed to the Government Medical Officers and the Government did not so far take a serious view of this abuse. Now that the Minister in charge of medical portfolio has made a statement on the floor of the Legislative Council on behalf of the Government, that the practice of running Nursing Homes by Government Medical Officers was most objectionable, we are tempted to take up this topic once again for discussion, which we hope to do in our Editorial columns next month when we intend reviewing the debate on the token cut moved on the floor of the Madras Legislative Council for the purpose of criticising the policy of the Government regarding Medical Services.

Lord Brabourne's Advice to Medical Students: His Excellency Lord Brabourne, Governor of Bombay attended the annual prize distribution ceremony of the Grant Medical College, Bombay on 14-3-35. It is said that that was the first visit of His Excellency to the Grant Medical College. In the course of his address to the students His Excellency referred at the very outset to the importance and necessity of medical men for rural improvement and regeneration. He said that "there was no country where there was greater scope for

the demonstration of these ideals than in India at the present time. Some of the students, he said, might have been impressed with the opportunities for rural improvement and regeneration which were so prominently before the public. To him one of the most striking features of the India of today was the comparative absence of the counter part of the country doctor in other countries. He realised the difficulties of striking out in the villages, but hoped that some of the students contemplated utilising their talents in this manner."

We have been expressing identical views over and over again when we had to criticise the unsympathetic attitude of the authorities concerned in the administration of the Subsidised Rural Medical Relief Scheme. In Bombay Presidency the Government have not as yet inaugurated a scheme of subsidised rural medical relief of the type and magnitude we have in Madras. We find His Excellency Lord Brabourne is very keen in rural uplift and trust that he would include medical practitioners as important and necessary units in his scheme for rural reconstruction and make the medical students of Bombay realise his earnestness in inculcating high ideals of public service. The subsidised rural relief medical scheme was inaugurated in Madras Presidency by the Government at the instance of the then Minister, the late Raja of Panagal, with high ideals and within a course of 10 years these ideals have dwindled down to almost nothing. The unfortunate practitioners are made to feel worse than those employed under indentured system of labour. Instead of encouraging the practitioners to enlarge their scope of private practice which is the main purpose of the scheme every obstacle is put in their way and if the existing state of affairs are allowed to continue long the subsidised rural medical relief scheme will come to an end. It may look rather out of the way to criticise the Madras Scheme when we comment on a Bombay topic. Our pupose is to point out to His Excellency the Governor of Bombay how lofty ideals inculcated by a neighbouring provincial Government in a concrete scheme of rural medical relief, instead of being encouraged and made use of for village reconstruction is abused by the very authorities who inaugurated the scheme.

Non-Co-operation in Preventing Epidemics: A few practitioners in the city of Madras brought to our notice some time ago that the Health Officer of the Corporation of Madras refused to supply them Cholera Vaccine. We were rather surprised at the alleged attitude of the Health Officer towards these practitioners who offered themselves to co-operate with him in preventing cholera especially so as we had personal knowledge of the Health department supplying to private qualified practitioners not only cholera vaccine but lymph for vaccination. We referred this complaint to the Health Officer who sent us a copy of the Extract from G. O. No. 1591 P. H. dated 27-6-34 which runs thus:

> The Director of Public Health is informed that private agencies should not be utilised for vaccination work without the specific sanction of Government and that if such agencies want vaccine lymph for vaccination purpose they should pay for it.

Though in the extracts from the G. O. mention is made only about Vaccine Lymph the Director, King Institute has mentioned in his letter to the Health Officer that the same principle applies regarding Cholera Vaccine. Ordinarily the paid staff of the Government or Local Bodies are not able to cope up with the work of prevention when cholera and small pox are raging in an endemic form. They sometimes find it hard to get in time temporary paid staff. It is really a retrograde policy of the Government to insist on a special application to them whenever private practitioners offer to co-operate with the health authorities. The utmost they might have done to prevent misuse or waste was to request the practitioners to supply to the health authorities names and addresses of persons whom they vaccinated or inoculated. There may be a petty feeling in the minds of a few that the practitioners might charge a fee to those who can afford to pay. Why should they not if the people pay them voluntarily. Each vaccination or inoculation done by those employed by the Government or Local Bodies costs something to the Government in addition to the cost of the material and so there is a distinct saving to the authorities if private practitioners offer their services free of charge. There are reports from various stations about the prevalence of Small-pox. An epidemic is threatening even in the city of Madras. The Health officer will do well in public interest to take general permission

from the Government for the free supply of Vaccine Lymph to private practitioners and also of Cholera Vaccine to meet any future exigency instead of pointing out the G. O. to the practitioners and create an atmosphere of non-co-operation.

Vaccination certificates : We learn that the Madras Medical Council unanimously passed a resolution on 5—3—35 requesting the Government to withdraw the circular regarding countersigning of vaccination certificates referred to in these columns last month. We hope Medical Councils in other provinces will do likewise. As mentioned by us last month the source of the origin of this circular on countersigning of vaccination certificates, is the India Government and if all the provincial medical councils send their protests to the Government of India, they are likely to reconsider their previous order and remove the slur on the medical profession in this country.

A Suggestion : Mr. T. A. Ramachandra Sastri President of the Government Non-Gazetted officers' Association, Madras has sent us for our opinion an appeal addressed by him to the non-gazetted Government officers for enrolling themselves as members of this Association. In the appeal are embodied several schemes for the betterment of the lot of the members of the Association such as Mutual Benefit Fund, Provident Insurance Fund and Charity Fund. Provision is also contemplated for the development of social activities, physical training, educational facilities for the children of the members. We observe one important omission, that is, provision for medical relief. The President as well as the members of the Association must have intimate knowledge of the sufferings of the middle class people in the city when they or their dependents suffer from any illness requiring skilful and scientific treatment. They can ill afford to pay the bills of the doctors nor of the chemists. Many of them are averse to take advantage of the state hospitals. We would suggest to the Executive Committee of the Association that they should lose no time to form a panel of medical practitioners of charitable disposition who are willing to give medical aid to the members of the Association for a nominal fee. The committee would do well to start a nursing home on a co-operative basis for treating the members and their dependents suffering from illness requiring care and attention. We offer our services to the non-gazetted officers' Association through the Executive committee and the President in securing them help and co-operation of the members of the medical profession in case they are in need of any help. The appeal is worth the serious consideration of the non-gazetted Government Officers who must have by their past experience from the activities of the Association realised that unity is strength and we trust that the quotation from Bhagavad Gita "This world itself is not for the non-sacrificer; much less the other world," referred to in the appeal by the President Mr. T. A. Ramachandra Sastri, will have the desired effect in strengthening the bonds of comradeship amongst the non-gazetted Government officers.

Correspondence Reports, Etc.

Dr. Voronoff's View of Future

NORMAL AGE 100.

Men normally living to the age of more than 100 years and every big town in the world with a rejuvenation hospital and a monkey-farm—These were visualised as practical possibilities in the future by Dr. Serge Voronoff in a press interview.

Even at present many men lived to the age of 100 and more, particularly in Europe. But because of the unhealthy conditions of modern civilized life, the deterioration of the human race and several other factors, most men were not able to attain the full term of their allotted span of life. His scientific discovery aimed not so much at the prolongation of life but at making it possible for men to live their natural period of existence.

The question of the monkey too was very important as it was the monkey that made operation so expensive. He, felt however, that with the increasing popularisation of his method, which was already in use all over the world, more farms would be started on the model of his own. He could well visualise the time when every big town would have its own monkey-farm with its hospital attached to rejuvenate the aged and the infirm and which would above all have the effect of bringing the operation within the reach of poorer men.

His present mission to Java was in fact connected with the demand for monkeys. The demand at present far outstripped the available supply of the requisite species of monkey. He was, therefore, making a tour of Java and the East Indies, Siam and other places to experiment on the blood of the gibbon and the ourang-outang.

JOY OF DYING YOUNG

Man cannot avoid death but he may be given the joy of dying young at an age which is not at present reached by even very old men. His method was too recent for him to be able to confirm the statement, he added, by giving an example of a man who had lived to the age of 150. But one of his patients was still alive and hale and healthy at 92, and another who had been operated upon at 60 had re-married five years after the operation.

The main purpose of his operation was to prevent the disorganization of the functions of the body, which set in with the coming of old age. So far as his own observations went the effects of his operations, which lasted from ten to twelve years, were to be seen in a general improvement of the intellectual powers and of the imagination side by side with a corresponding strengthening of the tissues and the muscles of the body.

He emphatically denied the allegations that his subjects developed simian characteristic of any kind, adding that no baneful effects whatever were visible even in the progeny of his patients. Their children were always healthy and normal with normal human characteristics.

Influenza Cure Research

The discovery last year of an influenza virus which was infective for ferrets led to the hope that further advances towards the prevention and cure of the disease would soon be reported.

In a recent issue of "The Lancet," a group of workers at the National Institute for Medical Research Farm Laboratories, Mill Hill, record a further step towards the elucidation of the problem.

This consists of the discovery that the mouse is suceptible to the virus of human influenza. A very small drop of the virus solution placed in the nostrils of a mouse leads to the development of "influenza". The necessary controls and "passage experiments" (i.e., passage from mouse to mouse) have shown that this is a true susceptibility and not a chance result. Further, the effect of the virus upon the mouse can be neutralised by specially prepared anti-serum.

Five mice receiving mixtures of virus and undiluted anti-serum survived and others not so protected were infected and succumbed to influenza. The protected mice, however, were found to be susceptible to the disease less than a fortnight later, so that the immunity produced was short-lived.

PREVENTION

The serum obviously of great importance in the whole question of the prevention of influenza, but the present report is unable to go further than to state that "details concerning this serum will be published later."

A further point of interest in regard to these new experiments is that the disease produced in the mouse appears to resemble the fatal cases in human subjects in that the lung is mainly involved. In the previous work on ferrets this was not so clearly marked, so that the new method brings the study of the disease in animals more into line with what occurs in humans.

One difference, however, has been found which is of some importance, namely, that there is no coincidence suggesting that infection can pass by contact in a fatal form from mouse to mouse.

The main importance of these results lies in the fact that the study of influenza is now brought within the scope even of the most modestly equipped laboratory so that the investigation of the disease can proceed on a widespread scale. Further, the possible use of the mouse for early and exact diagnosis remains a line of work which has borne fruit and the further details of the anti-serum as promised will be awaited with interest.

A New Discovery

USE OF RAW GREEN VEGETABLE IN ANAEMIA

Professor Minot has made discoveries which suggest that chlorophyll, the green colouring matter of plants, may greatly accelerate the absorption of iron—the stock treatment for this type of anæmia.

"It is still a research problem," he explained, "and many points remain to be solved by trial and error, for example whether the absorption of iron by the body could be accelerated by chlorophyll in the shape of raw green vegetables.

"Secondary anæmia seems to be more common in England than it is in America," he added, "it is probably safe to say that one out of every ten women in London between the ages of 20 and 50 is suffering from anæmia in a considerable degree."

While Professor Minot is, at present, cautious concerning the practical application of his new discovery, it is considered probable that the use of chlorophyll may be of value in cases where the taking of large quantities of iron causes digestive disturbance.

Fight Against Cancer

The latest progress in the discovery of the serum, which will select and kill cancer cells but which will not injure normal cells, was reported at a meeting of the Governors of the London Hospital.

The work on the serum, which was evolved by Dr. T. W. Lumsden, has been continuing in the London Hospital's Cancer Research Laboratories for four years. The cancerous growth, says the report, is due to certain cells, which while retaining some of the characteristics of normal cells, become abnormal in other respects, multiply with excessive rapidity, invade the surrounding normal tissues and act as brigands on the peaceful population of the country they invade.

It was stated that Dr. Lumsden's serum was obtained by implanting cancerous cells into an animal of a different species and obtaining a serum from the blood of that animal. The stage has now been reached, says the report, when the serum will kill cancer cells which have been removed from the human body without damaging the normal cells. If the cancer cells have been removed from one animal to another of the same species, the serum will kill the cancer so implanted.

Research workers are at present engaged in refining the serum and extracting the non-essential elements.

Colonel W. M. Pryor, who presided over the meeting, told Reuter's correspondent that the progress was still in the experimental stage. It should be emphasised it cannot yet be used in live human beings.

(*Extracts from the Times of India*).

The Tinnevelly District Medical Association, Palamcottah.

The sixth Annual gathering organised by the Tinnevelly District Medical Association commenced at 4-30 P.M. on 23rd February, 1935 in the premises of the Hindu College, Tinnevelly, under the presidency of Dr. T. N. Govinda Ayyar, M.B. & C.M. Besides 88 members, some ladies and local officials and citizens also attended the function. Dr. Taliat, F.R.C.S., & Dr. Dasannachar, M.B. & C.M., members of the Travancore Medical Association and Dr. Saiyid Gulam Hussain Sahib, the new Civil Surgeon of Tuticorin, attended the meeting.

The guests were entertained to tea and light refreshments by Messrs. Havero Trading Co. Ltd. After a group photo the gathering were entertained with melodious music by (1) Dr. J. Sankarasubba Raju, (Vocal) (2) Dr. L. Mahadevan, M.B.B.S. (Mad), D.O.M.S. (Lond). The Dancing in costume of Dr. N. Lakshmanan was simply charming.

After tea and music the business proper of the gathering commenced. Lieut Col. T. S. Shastry, I.M S., welcomed the guests. The Secretary Dr. V. Sankarasubban, M.B. B.S., read the new rules of the Association which were unanimously passed. Lieut Col. T. S. Shastry's addendum that Ex-members whose work deserves recognition and distinguished members of the profession who are working outside the District may be made Hony. Members of the Association was unanimously accepted.

Office-bearers for 1935 were elected unanimously, Lieut, Col. T. S. Shastry, I.M.S., as President, Dr. N. Isaac of the Head Qrs. Hospital, Palamcottah, as Secretary and Treasurer.

Lieut. Col. T. S. Shastry, I.M.S., delivered an interesting and instructive lecture on Menstruation and Menopause.

A woman with out-turned feet on undeveloped legs, and hands like the cloven feet of a cow, but otherwise very sturdy and well-nourished, and aged 30 years, was exhibited by Dr. Mrs. A. Brown. Then interesting notes of the followiug cases operated on at the Head Quarters Hospital were read out: (1) The Cæsarean Section (2) Fracture of leg owing to the spread, of apitaelioma of the skin (3) Tubercular Testes (4) Dermoid cyst of the scalp and (5) Glioma of Eyeball.

The President brought the meeting to a close by an eloquent address. With a vote of thanks proposed by Dr. V. Sankarasubban, M.B.B.S., to the guests and members the meeting terminated. Thereafter a sumptous dinner prepared by the "Chandra Vilas" brought the happy gathering to a close late at night.

By invitation, the Tinnevelly District Medical Association attended a meeting of the Travancore Medical Association on the 16th March 1935 at Neyyur 51 members of Tinnevelly Medical Association reached there by 9 A.M. after having an excursion at Cape Comorin the previous night. They were treated to excellent demonstrations in the wards and in the Operation theatre by Dr. Orr, M. D., and Dr. T. H. Somervell, M.B.Ch.B, F.R.C.S., till 1 P.M. at the London Mission Hospital. All the Doctors (about 100) were entertained at a sumptuous lunch.

The meeting proper then began with over 110 members (51 from the Tinnevelly District Medical Association) at 5-30 P.M. under the Presidentship of Lieut. Col. T. S. Shastry, I.M.S., Dr. Taliat, M.B.B.S., F.R C.S., after reading the minutes of the last meeting of the Travancore Medical Association welcomed the gathering, specially the members of the Tinnevelly District Medical Association.

Dr. I. M. Orr, M.D., read a very learned and interesting paper on "Dyspepsia in South India". Dr. T. H. Somervell read a very stimulating paper on "physiology in Surgical Practice". Dr. E. A. Harlow read a paper on Drug adulteration and Drug Legislation. Lieut. Col. T. S. Shastry, I.M.S., made a few remarks on the subjects and brought the meeting to a close on behalf of Tinnevelly Medical Association. Dr. Manuel of Tuticorin thanked the Travancore Medical Association and the staff of the London Mission Hospital in suitable terms for the scientific and social feasts. Rao Bahadur Dr. Verghese (Retired Civil-Surgeon proposed a vote of thanks to the guests on behalf of Travancore Medical Association.

The members of Tinnevelly Medical Association then proceeded to Nagercoil where there were given a sumptuous dinner by Dr. K. Rama Aiyar, M.B.B.S.

South Kanara District Medical Association.

RESOLUTIONS PASSED AT THE 3RD. GENERAL BODY MEETING HELD IN THE WENLOCK HOSPITAL, MANGALORE AT 5 P.M. on 23-2-1935.

That this meeting of the Association places on record its deep sense of sorrow at the untimely demise of Dr. T. Krishna Menon, M.B.C.M., L.R.C.P. (Lond) M.R. C.S. (Eng.) on 11-1-1935 at Madras, and offers its condolence to the members of the bereaved family.

That this meeting of the Association places on record its deep sense of sorrow at the untimely demise of Dr. B. S. Mallayya M.B.C.M. on 29-1-1935 at Madras. This meeting places on record its appreciation of Dr. Mallayya's zeal for public work, political, social and professional and offers its condolence to the bereaved family.

Read (1) G. O. No. 2480 P. H. dated 25-10-1934 and (2) Memorandum from Dr. Ramasubbu, Secretary Madras Provincial subsidised (rural) Medical Practitioners' Association dated 6-12-1934 to the Hon'ble Chief Minister on the above G. O.

Resolved (a) that this meeting of the Association is of opinion that the G.O. is a real hardship to the rural subsidised Medical Practitioners and is contrary to the spirit of the scheme, as it does not give them enough time to attend to their outside calls, and request the Government to restrict the working hours to mornings only.

(b) That the Honorary Secretary is authorised to communicate the above resolution to the Government, the Surgeon

General, the District Medical Officer, District Board president, and the press and to Dr. Ramasubbu.

The Trichinopoly District Medical Association.

A monthly meeting of the above Association was held at 4 P.M., on Saturday the 16th February 1935 in the Gov't Head Quarter Hospital Trichy. About 35 members were present. Dr. R. Gopalan Hon. House Surgeon of the Government Hospital, Trichinopoly was "At Home". In the absence of Dr. Norman the President of the Association, the Secretary proposed Dr. James Retired Civil Surgeon of Madras to the Chair and requested him to give his views on the newly published Journal of the Association. Dr. James thanked the Association for honouring him to take the chair on the occasion said, that he read the small Journal with pleasure and was much impressed with the neat get up and the very useful information it contained. He said that the Journal is unique in South India and wished it all success. He also congratulated the Association for its activities for the last six years which he had been watching with pleasure. He then called upon Capt. Sangham Lal I.M.S., F.R.C S., to deliver his lecture on "Infections of the Hand".

Capt. Sangham Lal delivered an interesting lecture for one hour after which there was a discussion. He then showed a specimen of brain with huge abscess in it which was diagnosed during life and operated upon. Dr. R. Sambasivan who presided in the later part of the meeting made a few concluding remarks and the meeting terminated with a vote of thanks to the Lecturer, Chairmen, and the Host.

All India Medical Licentiates' Association.

XXVIITH ANNUAL CONFERENCE.

"The dates for the 27th Annual Conference of the A.I.M.L. Association have been fixed on the 17th, 18th and 19th of April 1935. The places for the Conference, for the Exhibition and the delegates' camp have been fixed. The different Sub-Committees, particularly the Exhibition Committee have started the work in right earnest.

The Reception Committee wishes that the Conference should be well attended and should be a great success. Kindly help us in securing good exhibits for the exhibition and interesting Scientific papers for the Conference" For full particulars apply to:—

Dr. G. V. Motiwale,
General Secretary, Reception Committee,
M. T. Hospital, Indore.

Research Scholarships in Medicine.

Applications are invited by the Lady Tata Memorial Trust for two scholarships, of the value of £ 400 a year each, which are likely to be vacant for award in June 1935 to men or women of any nationality, for research work in the subject of blood diseases, with special reference to leucæmias. Each will be tenable for a year, from October 1, 1935, and renewable up to a normal maximum tenure of three years. The scholarships will ordinarily be awarded on a whole-time basis, but a candidate holding a part-time teaching post may be allowed to retain this if, in the opinion of the trustees as advised by the committee, his duties will not prevent him from giving his chief interests and energies to his proposed research work.

Candidates for these scholarships must send their applications in time to be received in London on April 15 next, addressed to Dr. F. H. K Green. 138, Bedford Court Mansion, Bedford Square, London, W. C. I. or Prof. A. Vacha. Calvinstrasse, 27, Berlin. N. W. 40. or the Secretary, Lady Tata Memorial Trust, Bombay House. 24, Bruce Street, Fort, Bombay, from whom forms of application may be obtained.

The Medical Practitioners' Association, Nuzvid.

The third anniversary of the above Association was celebrated at Nuzvid on 23-3-35. The Kistna District Medical Association held their monthly meeting in conjunction with the Anniversary. After light refreshments and group photo the meeting commenced at 4 P.M. when Lt. Col. K. V. Ramana Rao, I. M. S., D. M. O. Kistna presided. After prayer Mr. N. Rama Rao the Secretary of the Nuzvid Association read the annual report of the Association and Dr. Venugopal Rao Naidu, L.M. & S. Assistant D.M.O. read the minutes of the last meeting of the District Medical Association. The members then discussed the question of affiliating the District Medical Association to the Andhra Medical Association and expressed their willingness for the same. Some verses in vernacular were read by Dr. N. Rama Rao. Dr. S. Hanumantha Rao, L.I.M. read an interesting paper on "Vitamins". Another paper on "Foreign Bodies" was read by Dr. N. Rama Rao. The President dilated upon the subjects and there was a lively discussion among the members. A resolution of condolence was also passed, regarding the demise of Dr. G. Sivasubramaniam of Bezwada. Thereupon the Col. read a paper on "Implantation of Ureters" into the pelvic colon. The President in his closing remarks thanked the Secretary and the members of the Nuzvid Medical Practitioners' Association, for the arrangements made to receive the guests of that evening and said he was much pleased with the good work turned out by that Association. The meeting came to a close at 7-30 P.M. with a vote of thanks to the chair.

CORRECT SOLUTION FOR THE "FILL-GAP" COMPETITION.

1. SCAR, 2. TARSUS, 3. FALLOW, 4. MACULE, 5. DANDRUFF, 6. CONTEST, 7. CAUSALGIA.

No. of entries received fifty-nine, and entrance fees received Rs. 29-8-0. Only one prize (first). Those who claim at least three errors in any of their entries, even though they have not sent all correct solutions may claim their prize.

First Prize : Lippincot's Quick Reference Book.

M. S. PANDIYAN,
Bukkapatnam (Anantapur Dt.)

AN APPEAL.

Dear Doctor,

We have been sending you complimentary copies of The Medical Practitioner for a pretty long period with the hope that you will be convinced about its usefulness not only to you but also to the profession as a whole and make up your mind to patronise the journal and co-operate with us in rendering service to the profession. For the last three months we published in the columns of the journal special appeals to you to enlist your sympathies. These appeals may or may not have caught your eyes.

Believe us Doctor, that we started this journal for propaganda and service for the profession, and it is our earnest desire that the journal should be read by the largest section of the profession in this country. This is why we have fixed the subscription at Rs. 2 a year so that the humblest amongst the members of the profession might not grudge to be its subscriber. The columns of THE MEDICAL PRACTITIONER are entirely devoted for the uplift of the medical profession in India and with this sole purpose, it has been condemning the watertight compartments in the profession, aiming at uniformity in the standard of Medical Education and has been doing propaganda to bring about harmony and prosperity in the profession. If you are satisfied that there is a need of a journal of the type of THE MEDICAL PRACTITIONER kindly make up your mind to enlist yourself as a subscriber and send us the enclosed post-card duly filled in. If THE MEDICAL PRACTITIONER does not interest you please do let us know, there may be others whom it may interest.

A reply will be highly appreciated.

V. RAMA KAMATH.

List of Postings of Sub-Asst. Surgeons for the month of February, 1935.

No.	Names of Sub-Asst. Surgeons.	From.	To
1	Dr. K. Govindankutti Nair	Govt. Hd. Qrs. Hl., Anantapur	C|o M. H. O. Hindupur.
2	,, V. M. Ramunni Nair	Govt. Hd. Qrs.Hl., Salem	L. F. Dy., Denkanikota.
3	,, K. P. Nayagam	L. F. Dy., Denkanikota Leave	L. F. Dy., Uttangarai.
4	,, Mrs. R. A. Kurian	Cholera duty, Chittoor	Govt. Hl., Tellicherry,
5	,, K. R. Parthasarathy	Govt. Hl., Palmaner Leave	Govt. Hl., Palmaner.
6	,, T. Ramadass		C|o. D. M. O. Ganjam.
7	,, Mr. E. J. Pichai Pillai	Queen Mary's College, Madras	Queen Mary's College, Madras.
8	,, Miss A. Pankajammal		Lady Willingdon Medical School for Woman, Madras.
9	,, K. Narayana Nayar	L. F. Dy., Kolacombai	L. F. Dy., Kaity.
10	,, A. Ambalavanam	L. F. Dy., Kaity	Govt. Hd. Qrs. Hl. Anantapur.
11	,, N. A. Abraham	R. M. D. Hd. Qrs. Hl., Tanjore	Govt. Hd. Qrs. Hl., Calicut.
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16	,, M. Sreedharamurthy	L. F. Dy., Duggarajapatnam	L. F. Dy., Kota.
17	,, D. V. Moses	Govt. Hl., Nandigama	Govt. Hl., Nuzvid.
18	,, D. Suryanarayana Nayudu	Govt. Hl., Nuzvid Leave	Govt. Hl., Nandigama.
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30	,, S. Natarajan		Agency duty, Koraput.

JL

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Reminders and Suggestions

DISEASES.	INDICATED MEDICINES.
ARTHRITISM:	Panbiline, Iodalose.
AZOTEMIA:	Hepatrol.
BILIARY INSUFFICIENCY:	Panbiline.
BONE DISEASES:	Pulmo Calcium, Fer-Ma-Pho.
CARCINOMA: (Pains of)	Cryogenine.
CANCER (Anaemia of)	Hepatrol, Cryogenine.
DENTAL CARIES:	Pulmo Calcium, Fer-Ma-Pho.
DYSMENORRHOEA: (Pains of)	Cryogenine.
ECZEMA: (Irritation of)	Cryogenine.
FLATULENCE:	Sedogastrine, Papyta.
GLAUCOMA: (Pains of)	Cryogenine.
GOUT:	Iodalose, Urogenine.
HYPEREMESIS GRAVIDARUM:	Opocrin Ovary, Oestryl.
HAEMORRHOIDS:	Mycol, Mictasol.
HYPERSECRETIONS:	Sedogastrine, Genoscopolamine, Genatropine.
IRITIS:	Cryogenine.
INFLUENZA:	Orargol.
LYMPHATISM	Pulmo Calcium.
MALARIA:	Cryogenine (for temperature.)
METRITIS:	Cryogenine.
OSTEO MALACIA:	Calcium, Cryogenine, Opocrin Pituitary.
OBESITY:	Iodalose.
PAINS:	Cryogenine.
POST OPERATIVE PAINS:	Cryogenine.
PRURITIS:	Cryogenine.
PREPARATORY TREATMENTS BEFORE OPERATION:	Cryogenine, Agocholine.
PYREXIA:	Cryogenine.
REGURGITATIONS:	Sedogastrine.
SMALL-POX:	Cryogenine.
URTICARIA:	Mycol.
WHOOPING COUGH:	Iodaseptine, Felsol.
WORMS:	Rectopanbiline.

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