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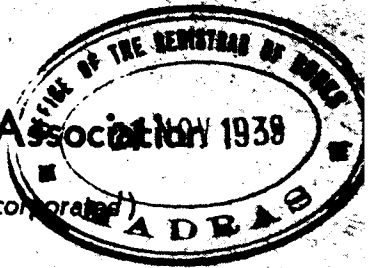
The Indian Medical Journal



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Organ of the All-India Medical Licentiates' Association

(With which THE AGRA MEDICAL CLUB JOURNAL is incorporated)



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MEDICAL NEWS—EXTRACTS
WITH MEDICO-POLITICAL SUPPLEMENT

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SUPPLEMENT TO THE INDIAN MEDICAL JOURNAL

MADRAS

NOVEMBER 15, 1939

No. 11

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Medical Instruction in Provincial Languages

The following is a recent memorandum submitted to the Hon'ble Minister of Health, Bombay, by Dr. Jivaraj Mehta and others. We are definitely of opinion that their proposals are retrograde and reactionary for more reasons than one. The memorandum is full of inappropriate and inapplicable analogies, and we regret to note that Mahatmaji's opinions are so quoted as to suit their own arguments without reference to their context. It is said that because European countries impart medical education in different languages without detriment to efficiency our country also can and should impart professional education in the provincial languages. Europe is not a nation, but India is; and we therefore think that it would be dangerous to our national unity if we choose to impart higher and technical education in provincial languages. Such a measure will never create an united India which is our dream to-day. Already provincialism is rampant and has overflowed its natural limits, and the proposals suggested below, albeit of their authoritative character, will further accentuate the provincial spirit to the ultimate disadvantage of our country as a whole. English should of course be given up, because it is not the language of India. But Hindi should take its place, and its claims to be the *lingua franca* of our country are unassailable. It is spoken by 70% our population. It represents the united culture of all the peoples of India. Its spirit is inherent in every provincial language. This, to our mind, appears to be more useful and practicable proposal than to make each province live like a frog in the well.

We think Dr. Jivaraj Mehta and his colleagues should have been well-advised to have taken the opinion of the organised profession before rushing to the Government with their personal views and plead passionately for their acceptance. So far as we know, this question has not been discussed by the medical associations in this country, and we fail to find any need for hasty opinions or actions by individuals. After all what has this Bombay deputation of self-appointed individuals gained except that they aired their views and felt their own importance in the body-politic of the medical profession? In our opinion they have done a distinct dis-service to the concept of an united India by the inordinate claims to enthrone provincial languages at the cost of the common language of India—the Hindi—which alone can unite us as a nation as nothing else would do.—Ed., I. M. J.

A couple of years ago when the people of this country expressed their unequivocal confidence in the programme of the Congress Party it was with a hope that when they took over the Government of the provinces they would introduce measures which would lead to a betterment in the different spheres of their life. One of the major improve-

ments that was anticipated was the provision of wider educational facilities, through the medium of their mother tongue. Such educational facilities would have covered not only formal education, but also vocational and professional education. This hope is particularly strengthened by the opinions expressed by the leaders of the Congress Party in

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their speeches and in their writings. In view of these considerations, when the Government of Bombay recently notified their intention of discontinuing the L. C. P. S. course in their medical schools, we were emboldened to place before you for your consideration a scheme for a re-organisation of medical education in this province, particularly with regard to the use of Gujarathi as the medium of instruction at Ahmedabad, and Marathi at Poona. The lead of Mahatma Gandhi in this matter is very clear, as he has referred to it in *Harijan* as follows: "English, having been made the medium of instruction in all the higher branches of learning, has created a permanent bar between the highly educated few and the uneducated many. It has prevented knowledge from percolating to the masses." Guided by this idea, the U. P. Government have recently declared their desire of introducing the provincial language as a medium of instruction in the colleges of the province in the course of next ten years, and the Government of Bombay have made the following declaration in the Legislative Assembly announcing the re-opening of the Deccan College at Poona. "Our aims in matters of higher education" are "to develop the three linguistic divisions of our province as independent units complimenting one another's work and contributing to the advancement of the province as a whole."

In pursuance of this policy they have recently granted recognition to the degree of the Indian women's University where the medium of instruction for all subjects (except English) is the mother tongue of the pupils.

At the present moment, the training of all medical men, the record of hospital cases and their treatment, are being carried out in a foreign language. As a result of this, the most desirable co-operation between physician and the patient does not exist to the same extent as in other countries, and the average man looks askance at scientific medicine, as something alien and imported from other countries. It is probably also for this reason that contributions to the advance of medical knowledge from the people of this country have been relatively meagre, and a large number of medical men fail to appreciate the essential difference between the scientific method which is taught to them in another tongue and scholastic speculation which they come across in writings in their own language.

Till the end of the 17th and the early part of the 18th century medical education in all European Universities was carried in Latin. With the growth of national idea and the introducing of modern European languages in the Universities scientific knowledge suddenly seemed to cast off its scholastic fetters and blossomed out with great vigour in the different centres. This tendency has been steadily progressing to such an extent that in Europe (excluding Russia), with a population hardly greater than that of India, medical sciences are taught in

more than twenty languages and every new centre is vying with others in the quality and quantity of scientific work turned out in its institutions. Even as late as 7 years ago the Flemish language obtained a recognition in certain provinces of Belgium, with a population of only 2 million people, and was gradually replacing French in the Universities in Flanders. Certain provinces such as Quebec and Transvaal have continued their own language even after being incorporated in British Dominions, whereas other countries which have started institutions for teaching medicine have adopted their own language for this purpose. China, Japan, Turkey and Afghanistan, in our continent, can be cited as recent examples in this connection.

In our own country English was introduced as a medium of instruction in medical institutions on the basis of the recommendations of a committee appointed by Lord William Bentinck in 1834. The five members of the committee were divided in their opinion as to "whether instruction would be imparted in an Indian vernacular or English. The Anglicists finally prevailed over the Orientalists, and it was emphatically laid down that "a knowledge of the English language combines with itself the circle of all sciences and incalculable wealth of printed works and illustration, circumstances which give it obvious advantages over Oriental languages in which are only to be found the crude elements of science, or the most irrational substitutes for it." However valid these considerations may have been 100 years ago, they do not possess the same significance in the scheme which is presented here, as medical students would be expected to be conversant with English so as to be able to read medical works and journals in that language.

It has been shown above and also widely accepted by most people who have thought over this subject that education when it is imparted in the mother tongue leaves more lasting impression on the minds of the individuals and stirs up mental processes which are more conducive to research and reasoned thinking. There is no reason to suppose, nor does the experience of other countries suggest, that technical education in different provincial languages in a big country like India would militate against the idea of a united nation. It is our belief that clearer thinking resulting from such an education would, if anything, promote the ideals of co-operation and co-ordination between the members of the medical profession. However, certain objections may be raised against the introduction of provincial languages in medical institutions and may be dealt with here.

The first is the difficulty of terminology. It is often stated that the terminology and text-books must be ready in a language before it could be used as a medium of instruction. But this supposition is not supported by facts. The S. N. D. T. Indian Women's University commenced teaching before text-books in Marathi or Gujarati were available. It is only recently, after an experience of over a

decade, that text-books in these languages have begun to be published. The introduction of Urdu as a medium of instruction into the Osmania University presents a good example. Although H. E. H. The Nizam's Government had previously established a Translation Bureau for the preparation of Urdu text-books, the work of the bureau was not helpful to the medical faculty, because the translated books were not selected by experts and were not translated by specialists in the different subjects. They were to a certain extent inaccurate and unreliable and had become, obsolete, as a result of the rapid advance of medical sciences, by the time the medical college was established. The students even now read English text-books but attend lectures delivered in Urdu. The material prepared by the teachers for their lectures is gradually accumulating and would very soon begin to be compiled into up-to-date books which would supplement the text-books in English. In Portuguese India most of the text-books employed by the students are in French, though the instruction is in Portuguese. In Japan scientific medicine was first introduced by Dutch physicians. As the Dutch teachers were in the habit of referring to a large number of German books, German began to be widely used as the foreign language to be studied by medical students. With the establishment of Japanese Universities the Government engaged German professors on 10 or 15 years' contracts to organise instruction in their institutions, and German became the official language in medical schools. This was only a transitory arrangement. The Japanese assistants of the German Professors, after undergoing a thorough training abroad, took the place of the Germans and began to teach in Japanese. The terminology gradually developed and later on Japanese text-books began to appear, which are being used more extensively by the students, along with some German books. As this process of substitution of foreign by Japanese books developed at a number of different centres, great differences in medical terminology were found to exist. The unification and standardisation of the terminology was undertaken at a much later date and the process is continuously going on, even nearly 70 years after the introduction of the Japanese language. In China modern scientific medicine developed under different auspices and at different centres, and different languages were and are used in China though the official medium is Chinese. The most recent example where the difficulty of language and text-books had to be solved was in the case of Turkey which came under French influence towards the commencement of the last century and French became the language for higher education. At the commencement of the present century the young Turks and the later Government were very much influenced by the German political expansion towards the East and German language began to be largely used in the medical faculty of the Istanbul University. Until recently Turkey has employed a large number of distinguished Jewish professors who had been expelled from Germany by the Nazi Government. However, in 1935, all these profes-

sors were instructed that after three years the medium of instruction would become Turkish and all of them must learn the language to be able to use it after that period. These examples have been selected to illustrate the fact that there was a bilingual period in all these Universities and that an elaborate preparation of terminology and text-books was unnecessary before the introduction of a new language medium. Terminology and text-books followed as a natural sequence. It may be added that in small countries like Holland, Denmark, Sweden and Portugal, where the sale of books in their own language is very restricted and the cost of publication proportionately high, English, French and German books are used by students to a very great extent, in addition to the books in their own language which is the medium of instruction and examinations.

The second objection which may be advanced is regarding the refusal of recognition of the courses of instruction in the proposed centres by the Medical Council of India. It should be noted that the Council has not recommended any particular language as a medium of instruction. The desired conditions laid down by them enjoin amongst other things that the students joining Medical Colleges should have studied English upto the Intermediate standard. Under the reciprocity arrangement they also recognise the Japanese and Italian degrees without insisting on a knowledge of English. There is therefore no reason to believe that qualifications granted after completion of a carefully worked out programme of education would be barred on the ground that a provincial language has been used as the medium of instruction. The experience of the medical faculties of Vizagapatam and Patna shows that even with the use of English it took 10 to 15 years before the degrees granted by these Universities were recognised by the Council. During this period they were recognised by the provincial Councils and Governments. It need not be pointed out that provincial recognition is far more important to a vast majority of practitioners than non-provincial or a foreign recognition. However, Osmania undergraduates are now allowed to appear for the Primary Fellowship examination held in India and the Bombay Provincial Council registers their graduates. It is likely that further recognition by other provincial and foreign councils would follow in course of time.

A fear is often expressed that the standard of medical education would show evidence of deterioration with change of language in which the instruction is imparted. It is the opinion of experienced teachers that with the exercise of proper care in the planning of the curriculum, in the appointment of suitable teachers and examiners the standard should show a definite amelioration instead of a deterioration. The first teachers should have real faith in and enthusiasm for the innovation, in addition to being experts in their subjects.

The following scheme is, therefore, tentatively suggested. A two years' college course after the

matriculation examination should be carried out in a separate preparatory (premedical) institution or college attached to the medical schools. This preparatory college is expected to be almost self-supporting and will not be a financial burden to the medical college, as it should be possible to employ lecturers from the staff of the existing arts and science colleges and also from the medical college on a part-time basis. A curriculum best suited as a preliminary to the medical course should be drawn up, including English as one of the subjects to be taught in those two years. Such a course would be designed to continue the education received by the students upto the Matriculation Examination in a provincial language, which is now permitted by many Universities or Boards in India and at the same time prepare them in the essentials of the basic subjects necessary for the medical studies. It is suggested that two independent bodies may be created by an Executive order of Government, preliminary to the passage of an Act through its different stages in the local legislature, making them responsible for the management of the two medical schools or colleges in the province and the organization of the medical education in the language of the corresponding area. They may be called The Gujarat Academy and The Maharashtra Academy of Medical Sciences. In course of time they may develop into full medical universities having more than one faculty and they will then control education in different branches of medical practice (e.g. medicine, dentistry, pharmacy, veterinary medicine, etc.). This idea of a medical academy is not new. Dusseldorf has such a medical academy for granting medical degrees only, and Cologne was originally one such academy before it developed into a full University. Many universities in India do not possess all faculties, some have only two viz., Arts and Science. The Indian Institute of Science at Bangalore possessing a constitution similar to some of the Indian Universities has been founded only for the purpose of promoting education and research in chemistry and electrical technology and grants its own diplomas in those subjects. However, there should be a provision in the Act allowing these academies to merge themselves into full Universities whenever they will be established or to federate with similar academies dealing with other branches of knowledge. The object of these academies shall be unification and organisation of the medical profession with a view to promote and conduct medical education and research. The chief means of carrying out this object shall be by establishing a medical college in association with one or more hospitals situated in the respective linguistic area. The constitution of the academy shall be partly on the lines of the learned societies but mainly on those of the teaching universities in the United Kingdom, the only difference being in the closer association with the Government and the Municipal hospitals,

as well as the voluntary hospitals and infirmaries and a greater mobilisation of all available facilities for the training of students. It is not proposed to discuss the details but it may be added that it would be advisable to build up the constitution of these bodies from below upwards. The Boards of studies and the teaching Departments would form the units which would be coordinated in a central administrative body rather than that an assembly of persons like the Senate of a University should split itself into smaller bodies leaving the direction of medical studies to persons, not associated with educational institutions who may be swayed by fleeting ideas in vogue at any particular time. It is our opinion that the units should federate to form a corporate body, the Academy, on which the Government, the donors, the patrons and the medical graduates would be represented. The scheme may be summarised as under

It is proposed that the two Government Medical Schools should be converted into medical colleges teaching through the principal language of the region. There may be a transitional bilingual period during which English text-books and to a certain extent international European terminology will be used. The control and conduct of education shall be vested in bodies called The Gujarat and the Maharashtra Academy of Medical Sciences. These bodies will be medical teaching Universities. The staff shall be carefully selected with a view to make the scheme a success, The Heads of the departments, Professors, Readers, Lecturers, etc., shall be appointed not as members of a service cadre but on "chair basis" similar to the appointments recently announced for the New Deccan College. These shall be University or Academy "chairs." The occupants of the chairs of clinical subjects shall be ex-officio members of the staff of the associated hospital departments. The departments of the college and the boards of studies shall be the units, which together with certain other representatives shall constitute the Academy. The course leading to graduation shall cover seven years of which two years will be devoted to general preparatory education corresponding to the Intermediate Science examination and will be spent at a special preparatory college attached to the Medical College. The next two years will be devoted to preclinical subjects like (1) Anatomy, Embryology, Histology (2) Physiology (3) Biochemistry etc., and the last three years to clinical and applied laboratory subjects according to the plan and the standards laid down by the Medical Council of India.

Vanaspati vs. Ghee

• Dr. Kunj Behari Lal Varma, L. M. P.,
Meerut, Provincial Secretary, U. P., All-
India Medical Licentiate's Association

GHEE is one of the chief and nourishing article of dietary of the people in northern India from the highest to the lowest. As we all know, it is the fat extracted from the milk of the cow or she-buffalo through a particular process: heating milk on slow fire for about two hours so that cream may float over the milk in layers, then curdling the milk, after that churning the curd with the addition of warm or cold water according to the season, thus separating out the fat in the form of butter which is known as *LAUNI* and leaving the curd which is known as *Mattha*, a refreshing beverage also utilised as an article of dietary. This *LAUNI* is heated on slow fire in order to remove the drops of mixed water and *Chach*. The melted fatty liquid is filtered through muslin cloth and it is known as GHEE and the residue of the launi is known as *CHAI*, which since it contains only particles of curd and water settling down at the bottom of the heating pot, is rejected.

It is only the fat of the milk of the cow or she-buffalo obtained through the above process which is known as GHEE. There are no kinds or classes of GHEE and it is nothing but fraudulent and calculated to deceive the general public to make, sell and call any other fatty substances or oil as *VEGETABLE GHEE*.

A few years ago some oil hardened like ghee and bearing its appearance was first imported from foreign countries in India and in our Province. This stuff being cheaper than ghee and having proved a successful fraudulent substitute, as also its adulterant, the capitalist class of our country like European capitalists grew anxious to profit themselves. They imported machinery for hardening oil to give it the appearance of ghee and put it in the market under the misleading but well-designed name of *VANASPATI GHEE* or *VANASPATI*. Vanaspati literally means a vegetable and medicinal herb useful to relieve our ailments and strengthen our bodies. A vegetable or Vanaspati is not fat at all and it cannot be made to give a substance like ghee, and neither can it act as a substitute of ghee. This adulterant stuff paraded under the name of *VANASPATI GHEE* is a vegetable oil extracted from various oil-seeds and hardened under a chemical process, called hydrogenation, by introducing hydrogen gas into the oil. In Europe whale-fish oil is the chief one used in the manufacture of the hardened substance like ghee. Linseed oil is also hardened in Europe.

Ghee contains the largest amount of vitamin A. This vitamin is an essential factor to promote growth, to prevent rickets in young children and to maintain health in adults. It may be pointed

out that absence or insufficiency of vitamin A leads to many eye-disease also.

McCollum of John Hopkins University in the United States of America, and McCarrison, one-time Director of the National Research Institute, Coonoor (India) have independently and as a result of experiments come to the conclusion that insufficiency of vitamin A not only prevents growth but also causes serious eye-troubles which if not corrected in time will end in night blindness and even total blindness, and general debility. The work of Goldberger of U. S. Public Health Service has clearly demonstrated that pellagra, one of the symptoms of which is a skin eruption, is due to insufficiency or absence of vitamin A along with other B complex vitamins. The old Ayurvedic work of Sushruta states regarding ghee: "It improves eye-sight and possesses excellent tonic and invigorating properties." Xerophthalmia, a severe disease of the eye, has also been attributed to lack of this factor.

The lack of vitamin A further makes the body a prey to infectious diseases. Ghee, like milk, contains two more vitamins, named 'D' and 'E.' It has been proved that the normal process of bone formation demands a certain concentration of calcium and phosphates in the blood and that one important factor in maintaining these concentrations is an adequate supply of Vitamin D. The deficiency of vitamin E has been shown to cause many diseases like sterility, embryonic death, muscular dystrophy and paralysis in young. The different green vegetables contain different proportions of one or more vitamins and thus they are recommended by the doctors to be taken in large quantities. Cows' milk is the only food which contains almost all the essential vitamins, necessary for growth and health, and that is why it is considered as the best and the most important article of our dietary. Ghee, an extract of the milk, has the same value, though in a lesser degree than the latter. The hardened fats of animals, or those prepared from vegetable oils, like *Vanaspati ghee*, do not contain any vitamins, the most important ingredients for nutrition and health. The total absence of the vitamins from *Vanaspati ghee* can well be imagined to cause disaster to the health of the people using it.

NATURE OF VANASPATI

Oil obtained from any kind of oil-seeds or from tissues of animals killed or dead, is the principle source from which is derived the so-called *VANASPATI GHEE* or *VANASPATI*. The oil is first heated to a high temperature and in presence of some metal like pickel, hydrogen gas is passed through it which combines with the oil and removes its smell and hardens it. Thus a bland solid oil without taste or smell having the resemblance of ghee is produced. Dyes and artificial scents are further added to give it the appearance and flavour of ghee as naturally extracted from the milk of a cow or she-buffalo according to different seasons of the year i.e., white of a she-buffalo, slightly yellowish of a cow, slightly greenish as

obtained from milk in the rainy season on account of green fodder on which the milching cattle feed. From this it is clear that the object is nothing but to place in the market an edible stuff resembling ghee in appearance, consistence, flavour and taste, but which is devoid of all the nutritional value of ghee or even of oils extracted from oil-seeds. The milk and ghee of a cow contain more vitamins than those of a she-buffalo, hence the former is comparatively more beneficial to health than those of the latter. Hydrogen gas, the lightest gas which is filled in Japan-made toy balloons of children sold in the market for a pice or two, is the principal stuff which solidifies the oil to the consistence of ghee. This gas combines with the oil in the presence of some catalytic agent like nickel, a cheap metal of which one-anna and two-anna current coins are made. Thus the artificial stuff is prepared in the presence of a metal which is likely to prove injurious to health. The use of this stuff as an edible article in place of ghee or oil must therefore result in malnutrition and deficiency diseases.

The oil which is purchased by the vanaspati manufacturer at Rs. 8 to Rs. 10 per maund is sold out by him after being chemically treated and its physical appearance changed to resemble ghee, to selling agents and purchasers at Rs. 16 to Rs. 20 per maund i. e., to nearly double the price. Halwais, sweetmeat-makers and confectioners prepare all food stuffs and sweets with this vanaspati instead of with ghee. The cheapness works as a stimulus to use vanaspati in place of ghee. The selling price of ghee is 14 chataks to a seer for a rupee. In this way the consumer gets about four annas worth of stuff in place of a rupee from the sweetmeat-makers using vanaspati which they spend for confections and other eatables made by them: about 50% profit thus goes to the vanaspati-manufacturer and 25% to the confectioner.

As ghee is the principal basic article for cooking all foods, sweets and vegetables for domestic use and is the most nourishing article of dietary, it has become too difficult to purchase pure ghee in the market on account of the adulteration that is facilitated owing to the similarity of appearance of vanaspati with pure ghee. Adulteration is done by the ghee-vendors and now even by villagers themselves. The villager adulterates it by a subtle process. He purchases vanaspathi from

vanaspati stores in towns and takes it to his village. At the time of curdling the milk after heating, Vanaspati is added to the milk which is intermixed with the curd. Next morning the curd with the vanaspati is churned and the product is a mixture of ghee and vanaspati. This adulterated stuff is sold in the market as pure ghee.

VANASPATI INDUSTRY & PUBLIC HEALTH

It is a serious question which must engage prompt attention of all patriotic and public-spirited citizens, public associations, the Government and the Ministry of Health. It is painful to see that a misdirected oil industry and trade is fast developing and spreading in our province with the only object of profit. It is bound to affect the health of our people ultimately. It is however encouraging to see Jaipur State prohibiting entry of vanaspati with the proviso that an infringement thereof is punishable with six months' imprisonment. But in U. P. we have a vanaspati factory at Cawnpore and another has recently been started in Meerut district.

The only remedy in public interest is, therefore, to put a stop to vanaspati-manufacture and its import in U. P., unless it is held out and justified by its supporters and exponents that Vanaspati is meant for some other industrial purpose and not as an article of dietary nor as a substitute of ghee. In that case it should be coloured deep or made unfit for human consumption. It is confidently hoped that our Ministry of Health will no longer delay in the matter of considering the damage which is being done to public health and to public morale by a wide-spread adulteration developing by this specious stuff being in the market. While our Ministry has launched upon a scheme of rural development for the welfare of the villager and has ordered total prohibition of wine and other intoxicants in some districts of U. P. in the interest of public health and well-being, in the same way manufacture and import of vanaspati in U. P. need immediate control, being a much greater menace as it affects the health of every villager and citizen from the highest to the lowest. It is also hoped that educated public opinion will gather momentum and express its disapproval of the continuance of vanaspathi industry and trade in our Province. Only then shall we be able to save our health from ruin.

PRIZE THESES FOR 1939

1. Dr. Joseph Benjamin Prize: Value Rs. 35. Post-Partum Hæmorrhage—its causes, signs, symptoms, prevention and treatment.
2. Dr. P. S. Ramchandrier's Prize: Value Rs. 25. Otitis Media—its causes, signs and symptoms, diagnosis and treatment.

All bonafide members of the A. I. M. L. A. are eligible to compete. The competitors are requested to write their theses from a practical point of view and in the style of a lecture. The theses should reach Dr. Jamiat Ram Desai, 52, Pritam Nagar, Ahmedabad on or before 28th Feb. 1940.

K. J. BHAT
Secretary, Gujrat Branch,
A. I. M. L. A., Ahmedabad.

Promotion of Sub-Assistant Surgeons in the Punjab

The following is a compendious extract of a memorandum submitted recently by the Punjab Branch of the All-India Medical Licentiates' Association to the Inspector-General of Hospitals of that province.

The question at issue is this. *The Punjab Medical Manual*, in para 252, lays down that the Sub-Assistant Surgeons with exceptional attainments may be promoted to Provincial Medical Service provided they possess the M. S. M. F. diploma, although in the latter part of the Rule it is definitely mentioned that the Membership of the Faculty will not by itself entitle them to promotion. If the Government wants to observe this Rule, they have to find out, for the purpose of promotion, such sub-assistant surgeons who have shown exceptional abilities in the exercise of their profession and who should at the same time have acquired or be helped to acquire the Membership of the Faculty. The deputations complain that the first part of the Rule is given the go-by while the second part is rather too strictly observed to the detriment of the ultimate purpose of the Rule and in breach of the provision mentioned in the Rule itself, namely, that higher qualification by itself shall not entitle one to promotion. The Punjab Sub-Assistant Surgeons merely urge for the fulfilment of this Rule both in letter and spirit. What they demand is that the deserving S. A. Ss. be promoted and given the necessary time and opportunity to qualify themselves for higher diplomas instead of solely confining the promotion to those who have the M. S. M. F. diploma without any record of brilliant service. None can say that this is an extravagant demand, nor is it against the rules in force.

Judging the question on its merits, we are rather inclined to think that it is no "promotion" in the accepted and usual meaning of this word, to absorb S. A. Ss. with higher qualification into the Provincial Medical Service, because they have already earned that right by virtue of having acquired the necessary qualification. The need to "promote" Sub-Assistant Surgeons with a higher medical qualification to the Provincial Service is a question of right while the demand to promote Sub-Assistant Surgeons with exceptional record of service is a question of privilege which should under no circumstances be curtailed or modified if the Punjab Government means to stand by the Subordinate Medical Service which has been authoritatively credited as always rendering unostentatious service to the people as well as the Government. We hope that it will render unto Cæsar what is Cæsar's and prevent the sabotage of legitimate ambitions of a deserving class of Government servants by vested interests. The stifling of such a natural desire for promotion will leave behind it a corroding bitterness of heart among a class of public servants who have left many an indelible footprint in the path of time.

Ed., I. M. J.

We have learnt with great regret that three posts sanctioned by Government for Sub-Assistant Surgeons in the P. C. M. S. cadre have already been filled up by Sub-Assistant Surgeons possessing foreign and university qualifications, and that the requests of a most useful, loyal and hard-working body of Government servants have not been given the attention they deserved and the rules enforced by the Government on this point have not only been not followed but interpreted differently to fill up vacancies on different occasions as if the sub-assistant surgeons are underserving non-entities in Government Service.

Sir, the implications of the present decision of the Government are:

1. That the men senior to the selected candidates did not fulfil conditions laid down in para 252 of the Punjab Medical Manual.
2. That the selected candidates fulfilled all the conditions laid down in the same para.

The necessary conditions and qualifications required for such promotion as enumerated in para 252 of the Punjab Medical Manual are:—

A. Sub-Assistant Surgeons who in the exercise of their profession, have shown themselves to be possessed of very exceptional attainments are promoted to the rank of Assistant Surgeons.

B. They are required, if they have not already done so, to take the Membership of the Punjab State Medical Faculty before they can be appointed to the rank of assistant surgeon, and can under no circumstances be appointed unless they fulfilled this condition. The possession of the Membership of the Faculty by a Sub-Assistant Surgeon is however not in itself a qualification for advancement, and will not entitle him to promotion.

1. That the men senior to the selected candidates did not fulfil conditions laid down in para 252 of the Punjab Medical Manual is not borne out by facts.

From the perusal of annual reports of Hospitals and Dispensaries of the Punjab Province of the last seven or eight years it is clear as day light that

there are men in the cadre of Sub-Assistant Surgeons senior to men now selected, who fulfil conditions laid down in Clause A of para 252 of the Punjab Medical Manual and the authorities will bear us out that in the presence of these men who are ready to take the membership of the Punjab State Medical Faculty, any other selection cannot be considered as justifiable and within the rules.

2. That the selected candidates have not fulfilled all the conditions laid down in para 252 of the Punjab Medical Manual can be borne out by facts.

There is absolutely no record which shows that the selected candidates, in the exercise of their profession, have shown themselves to be possessed of very exceptional attainments excepting that they have acquired the M. S. M. F. diploma.

Sir, there are more than a dozen candidates senior to those now selected for promotion to the P.C.M.S. cadre, having requisite qualification under clause A of para 252 of the Punjab Medical Manual. Similarly there are best physicians in the cadre of Sub-Assistant Surgeons, who being senior to those now selected fulfil conditions under clause A of the same para, and are ready to avail if required to fulfil conditions laid down under clause B of para 252. There is therefore no justification why these men should be superseded by juniors having nothing but foreign or university qualifications to their credit.

Owing to the unfortunate death of Dr. Amarnath Chopra (late Assistant Surgeon, Nurpur,) another vacancy has occurred in the P.C.M.S. cadre to be filled up by a sub-assistant surgeon and we pray that all the four seats should be filled up as per clause A of 252 Punjab Medical Manual. We would beg of you to realise the intrinsic justness of our claims and render us our dues in the same manner and in the same terms as Government deals with other departments in relation to the question of promotion. If higher degrees are not necessary for the promotion of Assistant Surgeon to Civil Surgeon, if a Tahsildar can become Deputy Commissioner, nay even as Commissioner without any extra qualification save the departmental tests, if a Sub-Inspector of Police can become a Superintendent of Police without any high general or special qualification; if, thus, meritorious services alone are taken as a criterion of promotion in these cases, we ask you, Sir, in all humility, why a similar criterion should not be applied to in the case of the subordinate medical officer?

If in any way our prayers in this respect cannot be granted, the rule in force should be followed in letter and spirit and those fulfilling conditions under clause A of para 252 of Punjab Medical Manual may be directed to undergo training required under clause B of the same para.

Sir, the position is this. Under the present rules the case of sub-assistant surgeons with meritorious services can only be considered for promotion to the rank of P.C.M.S., and if they are not in possession of M.S.M.F. they should be required to undergo the course and the period for such training be considered

as on duty. But to simplify matters the authorities are absolutely treating clause A of para 252 of the Punjab Medical Manual as a dead letter and the selection is made only out of Sub-Assistant Surgeons possessing M.S.M.F. higher or Indian University qualifications.

We submit that the present procedure is against the spirit of the rules in question, and we hope that you will do us bare justice in the matter.

LETTERS TO THE EDITOR

An appeal to the members of the All-India Medical Licentiate's Association Family Fund

Our fund was started at Indore in 1911. The object was to render mutual help to the family of a deceased member. It was only registered in the year 1928 under Provident Societies Act of 1912. Each member had to pay a death call of rupee one on the death of a member. Out of the money so collected 1/10 was added to the Fund and the remaining 9/10 was paid to the family of the deceased member. At one time the membership was 800. Gradually however it decreased and at present the members on the roll are 317 only. During the last 28 years the existing 317 members paid about Rs. 4200 to the families of the deceased members. At present the Fund has Rs. 14783-15-1 as balance on hand.

Assurances, by certain Bombay members, of increasing the Fund-membership were given should the Fund be transferred to Bombay. The Registrar suddenly insisted that the Fund office should be in Bombay Presidency only although, till then, the office was at Indore without any protest from the Registrar to my knowledge. The Fund was therefore transferred to Bombay only a year ago. Members of our Fund in Bombay and its suburbs are very few, now nine in all including the two or three who only recently joined the Fund.

The following members in Bombay form the Working Committee:

1. Dr. U. B. Narayana Rao (Secretary)—a member of 4 years' standing.
2. Dr. A. D. Mastakar (Treasurer)—a member of only one year standing, joined at the end of 1937-1938.
3. Dr. U. Sesharao (Joint Secretary & Member)—joined on 25-5-1939, a few months ago, and gained secretaryship even before joining the Fund.
4. Dr. A. G. Shah (Manager)—Member of 23 years' standing.
5. Dr. G. G. Wadhvani (Director)—Member of 5 years' standing.

The New Insurance Act of 1939 came in force from 1st July. By virtue of this Act, Funds like ours cannot function. Hence our Fund is not allowed to work now. It appears that our Bombay friends have not informed this to our members by a circular through the medium of our official organ, the Indian Medical Journal. We are therefore completely in the dark and it is found that a majority comprising of three members in all of the Working Committee of Bombay intend to get our Fund transformed into an Insurance company, even though two members of the same Committee who are also directors are against the Insurance scheme.

They have already prepared a scheme of Insurance with the help of an Actuary. This scheme overlaps

the rights of the existing members. It appears also that they have sought the sanction from Insurance Superintendent, Simla, for their scheme. The Indore Directors of the Fund having come to know of this, sent protest letters and also telegrams, but so far with no effect.

In spite of the opposition from Bombay Samachar and Sangartmana, from the Indore Directors and Members and also from the Bombay Directors of the Fund attempts are still being made to convert the Fund into an insurance business. Hence the Indore Directors and Members have presented a petition to the Insurance Superintendent not to sanction the suggested scheme of insurance and not to allow the present Working Committee of the Fund to convert it into an Insurance Company, at the cost of its reserve of Rs. 14000/-; and also requested to transfer the Fund to Indore and safeguard the interest of the existing 317 members, because the Holkar Government allows such Funds to work on its original creed of giving death calls, and also because the majority of our members still want to continue the Fund in its original creed without minding whether the Fund would pay us little or more, thus preserving the philanthropic idea of mutual help.

The main features of the suggested Insurance Scheme are as follows:

Out of the 317 surviving members, 100 members are between the ages from 50 to 81 and have paid calls for more than 25 years. Hence they shall not have to pay any more but will get a policy of Rs. 92 to 150 according to their ages payable at death even though they might have already paid Rs. 200 for calls. Those aged 50 will get a policy of Rs. 150, and those aged 81 will get a policy of Rs. 92 payable at death. The remaining 217 members will have to pay Rs. 6 as premium for 25 years and will be given a policy of Rs. 150 payable at death. No mention is made of surrender value, bonuses, etc. New members can be entered on a policy of Rs. 250 payable at death by paying premiums of about Rs. 15 per annum according to age. The New Law of Provident Insurance does not allow a policy of more than Rs. 500/-.

From the above it may be easily understood that no new member is likely to take policy for Rs. 250. Thus there would be no new income; and from the existing members whatever amount of premiums is received will be absorbed in the heavy running expenditure of the management. Sooner or later it may bring liquidation—this is detrimental to the existing members.

Preparation of such a scheme without the consent and knowledge of the present members is highly objectionable.

From the above facts it is quite obvious that the protests from Indore people is quite justified though whether transfer to Indore is permissible under law is a question. But we all should send our individual protest at once to Bombay friends not to foist an Insurance scheme on us. As the Fund is stopped working by Government it should be wound up—we should at once send votes for voluntary winding and to divide the assets on equitable basis in proportion to the call moneys paid as per rule and regulation 86 of our Family Fund and as provided in Schedule VII of the Company's Act of 1913.

I warn all of you not to delay and not to sleep over all that is going on but send your written vote in favour of winding the Fund and against its transfer into any Insurance scheme, to the undersigned at the address given below.

A. G. SHAH

A Member of the family fund for the last 23 years.
Ghatkopar (G. I. P. Ry.) Bombay.

SERVICE NOTES

[As per Resolution No. 18 of Gauhati Conference, A. I. M. L. A., we are publishing below only the transfer and leave of such of the Sub-Assistant Surgeons in each province who are members of the Association. The numbers given against their names indicate their membership roll numbers—Ed. I. M. J.]

Punjab—August 1939

- 1156 First Class Senior Dr. Arjan Singh, Ahmadpur Dispy., Jhang Dist. to Sohawa Dispy., Jhelum Dist.
- 689 Dr. Hari Singh Mahindra, General duty, Civil Hospital, Rohtak to Pinagwan Dispy., Gurgaon Dist.
- 1605 First class senior Dr. Hira Nand, granted 3 months' leave on medical certificate.
- 2824 „ Ghulam Hussain Khan, granted extension of 1 month's leave.
- 2446 „ Murari Lal Malhan, on return from leave to Ladwa Dispy., Karnal Dt.
- 2591 „ Nur Ahmad, Ladwa Dispy., Karnal Dist. to Hodal Dispy., Gurgaon Dist.
- 1906 „ Abdul Aziz, Alirazabad Dispy., Lahore Dist. to Jail Hospital, Ferozepore.
- 1597 „ Beant Singh, on return from leave to Kot Pindi Das Dispensary, Sheikhpura Dist.

Bengal—15th July to 14th August 1939

- 2569 Dr. Adhir Chanda Ganguly, Travelling S. A. S. Terai Siliguri, Darjeeling, held charge of the Khoribari Dispy. from 14-8-39 to 10-9-39.
- 2012 „ Satindra Mohan Ghosh II, Police Hospital, Suri, Birbhum, did the duties of S. A. S. Sadar Hospital in addition to his own for the period from 3rd to 20th June 1939 both days inclusive.
- 462 „ Roma Prasanna Roy, Teacher of Physiology and Pathology, Ronaldshay Medical School, Burdwan, held charge of the Asansol Sub-dvn. and dispy. on 11-7-39.
- 1791 „ Jaladhar Sen Gupta, R. M. O., Campbell Hospital, Calcutta, to Demonstrator of Pathology, Ronaldshay Medical School, Burdwan.
- 1892 „ Joyanta Kumar Bose, Jail & Police Hospital, Pabna, held charge of the Seraganj Subdvn. and dispy. on 11-7-39.
- 3553 „ Md. Arfan Ali, held charge of the Kishoreganj Subdvn. and dispy., Dist. Mymensingh on 4th July 1939.
- 3553 „ do. held charge of the Jamalpur Subdvn. and dispy., Dist. Mymensingh on 30-6-39.
- 2036 „ Kali Prasanna Sen, Medical Officer, Govt. of India Press Dispy., Calcutta, to leave on average pay for 4 months.
- 2569 „ Adhir Chandra Ganguly, Travelling S. A. S., Terai Siliguri, Darjeeling, leave on average pay for 8 months.
- 1352 „ Bhuvan Mohan Sen Gupta, Demonstrator of Anatomy, Ronaldshay Medical School, Burdwan, held charge of the Kalna Subdvn. on 11-7-39.
- 3056 „ Dabesh Charan Das Gupta, General Hospital, Chittagong, held charge of the Cox Bazar Subdvn. and dispy., from 10th to 16th July 1939.
- 480 „ Mano Mohan Seti, Police Hospital, Burdwan, leave on average pay for 8 months.

U. P. (P. H. Dept)

Government having resuscitated the posts of 20 Assistant Medical Officers of Health in the district from which they were withdrawn, the following postings and transfers are hereby ordered with immediate effect.

This resuscitation is the outcome of the deputation which was arranged by Dr. P. N. Saxena, Secretary of the Association and which waited on the Hon'ble Minister for Local Self-Government & Health on 20-7-39. An account of this deputation has appeared on pages 161 and 162 of the I. M. J. for September 1939.

- 1067 Dr. Sawa Ram Assistant Medical Officer of Health of Azamgarh to be Assistant Medical Officer of Health of Moradabad.
- " B. P. Shukla, Epidemic Medical Officer in Sitapur to be Assistant Medical Officer of Health of that district.
- 1067 " Chote Lal, Epidemic Medical Officer in Meerut to be Assistant Medical Officer of Health of that district.
- 1089 " Prakash Chandra, on return from leave, to be Assistant Hygiene Publicity Officer (Junior) at the Hygiene Publicity Bureau.
- 1293 " Dewari Lal Hajela, on relief by Dr. Prakash Chandra, to be Municipal Medical Officer of Health of Pilibhit.
- 1092 " H. D. Varma, Municipal Medical Officer of Health of Pilibhit on relief by Dr. Hajela to be Municipal Medical Officer of Health of Etawah.
- 581 " S. P. Saxena, Medical Officer of Health of Etawah to be Assistant Medical Officer of Health of Rae Bareilly.
- " Aijaz Husain, Offg. District Medical Officer of Health of Gorakhpur to be Municipal Medical Officer of Health, Bahraich.
- 1705 " S. S. Gangwar, Municipal Medical Officer of Health of Bahraich on relief by Dr. Aijaz Husain to be Assistant Medical Officer of Health of Hardoi.
- 2849 " Peshaura Sing, Epidemic Medical Officer in Aligarh to be Assistant Medical Officer of Health of Agra.
- 1120 " Banwari Lal Sharma, Epidemic Medical Officer in Mirzapur to be Assistant Medical Officer of Health in Jaunpur.
- 1060 " Madan Gopal Jhingran, Epidemic Medical Officer of Benares to be Assistant Medical Officer of Health of Bulandshahr.
- " Farzand Ali, Epidemic Medical Officer of Health in Saharanpur to be Assistant Medical Officer of Health of that district.
- " Sajjad Hussain Khan, Epidemic Medical Officer in Lucknow to be Assistant Medical Officer of Health of Bareilly.
- " H. H. Blanchfield, Epidemic Medical Officer in Lucknow to be Assistant Medical Officer of Health of Unao.
- " Sheo Das Agarwal, Epidemic Medical Officer in Sultanpur to be Assistant Medical Officer of Health of Pilibhit.
- " Naurangi Lal, Epidemic Medical Officer in Sultanpur to be Assistant Medical Officer of Health of that district.
- 511 " Sheo Narain Lal, Saxena, Epidemic Medical Officer in Moradabad to be Assistant Medical Officer of Health of Kheri.
- " Gur Prashad Sing, Epidemic Medical Officer in Azamgarh to be Assistant Medical Officer of Health of that district.

- 1971 Dr. Sada Ram, Epidemic Medical Officer in Muttra to be Assistant Medical Officer of Health of Gonda.
- 1093 " Shyam Lal Saxena, on return from leave to be Assistant Medical Officer of Health of Bahraich.
- 1065 " Bhagwat Swarup Gupta, Epidemic Medical Officer in Hardoi to be Assistant Medical Officer of Health of Garakhpur.
- 1118 " Anand Swarup Gupta, Epidemic Medical Officer in Rae Bareilly to be Assistant Medical Officer of Health of Etawah.
- " Mohd. Husain Jafri, Epidemic Medical Officer in Bara Banki to be Assistant Medical Officer of Health of that district.
- " Masha Allah Khan, Epidemic Medical Officer in Basti to be Assistant Medical Officer of Health of Muzaffarnagar.
- " Mohd. Abdul Mughni, Epidemic Medical Officer in Ghazipur to be Assistant Medical Officer of Health of that district.

ASSOCIATION NOTES

Proceedings printed below refer only to the Committee and Branches of the All-India Medical Licentiate's Association, unless otherwise stated.

Punjab Provincial Branch:

Copy of letter No. 7413 E. I., dated 27-7-1939 from the Inspector-General of Civil Hospitals, Punjab to the Provincial Secretary, Punjab Branch, Khanna:

Ref. your letter dated the 5th July, 1938, forwarding to the Hon'ble Minister of Education, copies of certain resolutions of the A. I. M. L. A. Conference Punjab Branch held at Delhi on the 30th April and 1st May, 1938, (vide *Ind. Med. Jour.*, Vol. 32, p. 544). So far as resolution No. 4 is concerned the Government regret that they are unable to modify the orders regarding the revision of the new scale of pay for future male sub-assistant surgeons. They also regret that they cannot see their way to accede to the requests contained in resolutions No. 19, 22 and 25.

With regard to resolution No. 24, the Government have issued orders regarding the raising of the standard of education in the medical School, Amritsar, and inauguration of a 5 years' course for licentiates.

As regards resolution No. 23 the Government have since approved of the institution of a 3 months' post-graduate course for sub-assistant surgeons in place of the quadrennial professional examination. For the present the postgraduate course replaces the 2nd quadrennial professional examination only.

Karnal: Proceedings of annual meeting of the above Branch held on 3rd Sept. 1939. 18 doctors were present. Dr. Manohar Lal Kapur was in the chair.

Drs. Manohar Lal Kapur and K. C. Wohra addressed the meeting and appealed for unity and concerted action. The following office-bearers were elected for the year 1939-40: Drs. Manohar Lal Kapur—President; Matlub Hussain—Vice-President; Bal Kishan Jhohi—Secretary & Treasurer; Ram Chandra Gupta—Jt. Secretary.

Jorhat: Proceedings of a Meeting of the above Branch held on 5th August 1939. 7 doctors were present.

Considered the resignation letter of Dr. K. Ali Hazarika, the Hon'y. Secretary. As he will be unable to continue in his office due to private reasons, his resignation was accepted with regret, and Dr. S. K. Sen Gupta elected in his place.

T. A. bill of Dr. B. C. Sarma for attending the all-India annual conference at Gauhati was scrutinised and passed for payment. The General Secretary was requested to condone the delay and kindly pass the bill for payment as early as possible.

It was proposed and accepted that the next meeting be held at the end of this month on some suitable date to discuss the pending letters from the Provincial Secretary and the General Secretary.

Proceedings of a meeting held on 27th Aug. 1939. 9 doctors were present. Dr. B. B. Sen Gupta was in the chair.

Read and discussed the Tingri Valley Scheme. Resolved that this meeting reiterates the resolution No. 16 (i), (ii) (iii), (iv) and (v) of the All-India Gauhati conference and requests the Provincial Secretary and the General Secretary to move Superintendents, the medical officers and the home Boards of all big tea concerns of both the valleys of Assam: that the Tingri Valleys scheme be kept in abeyance until we hear from the tea garden authorities.

Read G. S. circular No. 24 and noted contents.

Read G. S. circular No. 31: there were some discussions on the points raised by the G. S. and suggestions would be forwarded after due consideration within a month.

Read Provincial Secretary's letter regarding discontinuance of membership of Drs. K. Hazarika, R. C. Dey and Miss B. Zillie who refused the V. P. P. of the *Indian Medical Journal*. The Secretary was asked to request them personally to continue the membership as they have done in the past, and realise the subscriptions and forward it to the Treasurer as soon as possible.

Read circular No. 9 of the Prov. Secretary dated 13-7-39. The above Branch is not in a position to invite the provincial conference this year.

Read letter from Dr. G. S. Das, Member of the Assam Medical Council, and noted contents regarding the medical council resolutions.

Read circular No. 8 regarding the R. B. Dr. Sarju Prasad Memorial Fund and the Secretary was requested to collect donations and send same to the Treasurer.

Read Provincial Secretary's circular No. 7 dated 14-6-39 and resolved that S. A. Ss. of P. H. D., Assam be allowed to undergo a course of training for the D. P. H. diploma to enable them to be promoted to the grade of Assistant surgeons in the P. H. Department. A copy of this resolution be forwarded to the Director of Public Health, Assam.

Read Provincial Secretary's letter regarding deputation to the Hon'ble Minister of Health and noted contents.

Read letter No. 215-29 dated 1-5-39 regarding the proceeding of the 29th conference of the A. I. M. L. A. and noted the observations made by the Director of public Health, Assam.

The following doctors were requested to become members of this Branch and the Secretary was requested to collect their subscriptions—Drs. P. C. Kar, P. C. Barua and N. M. D. K. Rahman.

Applications for membership from Drs. Sreenath Roy and B. Banerjee were accepted and they were enlisted as members of this Branch.

Proceedings of a meeting held on 6th September '39 with Dr. B. B. Sen Gupta in the chair. 7 members were present.

Read circular No. 31 from G. S. and resolved that the resolutions are to be circulated to the members of this Branch for their opinion when it would be finally discussed and reply sent.

The audited account of this Branch for Rs. 3-12-9 was passed.

Dr. B. B. Sen Gupta spoke on the good work done by Dr. R. C. Dey on behalf of the Association and the help he was rendering to all the licentiates. Though he has been transferred from this place he was requested to continue his membership of this Branch.

Resolved that during the absence of Dr. R. C. Dey, auditor of this Branch, Dr. D. Bhattacharjee be appointed to work in his place for the remaining session.

Gauhati: Proceedings of a monthly meeting held on 5-8-39. Dr. S. N. Ghose presided. 8 members were present. The minutes of the last meeting were read and passed, except the following:

Resolution No. 6 of the previous meeting was objected to by Dr. G. S. Das. After some discussion it was resolved that as the account had been cleared resolution No. 6 be withdrawn.

Read circular No. 21 of the G. S. The members are of opinion that this Branch could not invite the all-India conference again.

Read circular No. 9 from Provincial Secretary, Assam. Consideration was deferred to the next meeting.

Resolved that the members of this Branch be approached to contribute towards "Rai Bahadur Dr. Sarju Prasad Memorial Fund."

Regarding resolution No. 4 of the last meeting, Dr. G. S. Das, the General Secretary of the last annual conference at Gauhati, had informed the members present that the account would be submitted very soon.

Tingri Valley: Proceedings of a scientific meeting of the above Branch held on 20-8-1939 with Dr. J. C. Dutta in the chair. 11 members were present.

Proceedings of the last meeting were read and confirmed. The following scientific papers were read: (1) Diagnosis of febrile diseases of protozoal origin by Dr. H. C. Das of Keyhung T. E., (2) Diagnosis of febrile diseases of bacterial origin by Dr. P. C. Dutta of Bijlibari T. E., (3) Diagnosis of febrile diseases due to virus of unknown origin by Dr. S. C. Dutta of Balijan T. E.

Dr. Hare discussed about the peril of introduction of yellow fever into India due to the increasing air traffic with Africa. The question whether Malta fever also could similarly be conveyed was discussed. Finally Dr. Hare spoke on the pathogenesis and diagnosis of agranulocytosis and cited three cases known to have occurred in Assam.

Etawah: Proceedings of the meeting of the above Branch held on 30-7-1939 with Dr. P. L. Bhargava in the chair. 8 members were present.

Dr. Kunj Behari Lal Verma was welcomed by the house and was thanked for having kindly accepted the invitation to be present.

The proceedings of the last meeting were read and passed. Drs. Banwari Lal Pandey and Dal Singh Jadon were enlisted as new members.

Dr. Shiva Pershad Saxena gave a lecture on the prevention of cholera.

The house requested Dr. K. B. L. Verma to give the opinion of the Provincial Branch whether licentiates should become members of I. M. A. or not. On this subject he spoke for some time and finally said that he was soon going to hold a meeting of the provincial Branch and would decide the question.

Bareilly: Proceedings of a meeting held on 8-7-39. Dr. Babu Ram was in chair. 4 members were present.

The proceedings of the last meeting were read and confirmed.

Resolved that resolution No. 4 of 20-1-39 concerning the services of compounders and menial servants, and resolution No. 4 of 9-7-38 concerning distribution of duties of M. O., I/C. and M. O., I/Sec. are confirmed and a copy of this be sent to the I. G. C. H. and the Hon'ble Minister of Health through the Provincial Secretary.

Read G. S.'s circular Nos. 19 and 20. The members were requested to contribute to R. B. Dr. Sarju Prasad Fund.

That the contingent bill from 6-4-39 to 7-7-39 be passed.

Proceedings of a meeting held on 10-8-39. Dr. Babu Ram was in chair. 4 members were present.

The proceedings of the last meeting were read and confirmed.

Read circular No. 21 of 6-7-39 of the G. S. and resolved that the annual conference was held in these provinces only two years back, and this Branch was of opinion that the Punjab or Bengal province might be requested to invite the conference.

Read and noted G. S.'s circular No. 24 of 22-7-1939.

Read letter No. 196 of 26-7-39 of Provincial Secretary, U. P. and resolved that this Branch was pleased to invite the meeting of the S. C. of U. P. Branch at Bareilly about the 1st week of September 1939.

That the contingent bill of this Branch from 8-7-39 to 9-8-39 be passed.

This Branch was glad to learn that R. S. Dr. Lekhraj Singh, I. M. P., P. M. S., had been awarded the title of Rai Bahadur in recognition of his meritorious service and this Branch congratulates him on this honour.

Meerut (District Branch): Proceedings of a general meeting held on 10th August 1939.

An exhaustive paper on the injurious effects of Vanaspathi ghee (hydrogmat oil) was read by Dr. K. B. L. Varma.

1. This meeting expresses its gratefulness to the Hon'ble Minister and His Excellency the Governor for having raised the curriculum of studies at the Agra Medical School to five years with Intermediate in Science as preliminary qualification and thus meeting the persistent demand of the U. P. Licentiates and the All-India Medical Licentiates' Association. The meeting further most respectfully prays that in the interest of the profession and the public, special and liberal provision in the shape of post-graduate training should be made in the improved curriculum for the old students of the School.

2. That in order to help practising licentiates desirous of obtaining M. B., B. S degree of the Lucknow University this meeting wholeheartedly supports the following scheme through the institution of a "Medical Practitioners Degree Examination" by the University as suggested in the memorandum of the U. P. Branch of the All-India Medical Licentiates' Association ;

(a) Exemption from preliminary F. Sc., with biology.
(b) Licentiates under ten years' practice should receive two years' post-graduate training at the Lucknow Medical College before degree examination.
(c) Licentiates over ten years' practice should receive one year's post-graduate training.

(d) Licentiates over twenty years' practice should be required to submit a thesis which, if approved by the examiners, should qualify to confer the degree.

(3) In the interest of public health and welfare, members and branches of the Association should organise charitable clinics for educative propaganda against preventable diseases, and for their prevention and cure, such as infant welfare clinic, child welfare clinic, maternity welfare clinic, anti-venereal clinic, anti-malaria clinic, blind relief camps, etc.

(4) In the larger interests of the medical profession in India, it is high time that the scope of membership of the A. I. M. L. A. is extended to all qualified medical men and its name changed to All-India Medical Association.

(5) Resolved that the attention of the U. P. Government be invited to the injurious effects of Vanaspathi ghee on the health of the consumers and that the Government be requested to put a stop to Vanaspathi manufacture and trade in U. P.

6. Resolved that a sub-committee consisting of doctors M. L. Sharma, K. B. L. Varma and Prem Sagar be formed to collect views regarding origin and causes of epidemics in U. P. and suggest measures for their eradication.

Proceedings of a meeting held on 31st August 1939, Dr. Diwan Singh was in chair. 8 members were present.

The proceedings of the last meeting were read and confirmed.

Provincial Secretary's circular No. 4 dated 21st August 1939 was read and members present expressed their personal experiences regarding origin and causes of epidemics in U. P. and suggested ways and means to prevent and combat them. The Provincial Secretary who was present in the meeting made a short note of all the suggestions.

The consideration of L. S. G. and Jail Committee reports was postponed to next meeting.

Benares : Proceedings of a meeting held on 3-9-39 with Capt. G. S. K. Hayi, in the chair. 5 members were present. Proceedings of the last meeting were read and confirmed.

Resolved that this Branch protests against and resents the unjustifiable remarks of Dr. J. J. Cursetji against medical licentiates contained in the *Insurance World*, February 39, p. 265-67 and that Dr. Cursetji's opinions are not those of the organised profession, as will be evidenced from previous resolutions on this subject by both the A. I. M. L. Association and the Indian Medical Association.

Resolved that all the members be requested to advance their annual provincial contribution amounting to Rs. 2/- to the Treasurer, U.P. before the 15th of September 1939 as it will save the V. P. expenses, or remit it to the local secretary.

Resolved that the members be requested to meet the non-members in their jurisdiction and enlist them as members on Rs. 4/- only as they would be exempted from the payment of Rs. 2/- as admission fee during the Sarju Prasad Month.

Resolved that a special meeting of this Branch be called on 20th September 39 to protest against the Indian Medical Council Act.

Resolved that a sub-committee consisting of the following may be formed to draft the replies of the questionnaire sent by the Provincial Secretary regarding the epidemics. The sub-committee should meet on Monday the 11th September 1939.

24 Parganas. Proceedings of a monthly meeting held on 6-8-39. Dr. H. C. Pal was elected to the chair. 16 members were present.

The minutes of the last meeting held on 24-6-39 were read and confirmed.

Dr. A. D. Mukherji, President, Bengal Provincial Medical Licentiates' Association, spoke at length on the importance of membership of the Association and after his instructive speech, Drs. P. K. Das, K. K. Sen Gupta and R. N. Sen Gupta paid their subscriptions for the Association then and there, drawing the thanks and applause of the whole house. Dr. A. D. Mukherji wanted the Branch to organise a membership campaign, and his suggestions were unanimously approved.

In order to organise the Branch the house signified its intention to hold a social gathering early next month so that many local doctors might meet on that day and a scheme of upliftment of the licentiates be launched upon. Drs. K. K. Dutt, S. S. Sircar, and S. N. Dey were entrusted to do the needful. Dr. P. K. Das offered his residence for holding the social function, which the house thankfully accepted. It was proposed that the gathering be held on 3rd September 39 at 7-30 p. m.

Nadia : Proceedings of a meeting held on 9-8-39 with Dr. P. Pathak in the chair. 7 members were present.

Proceedings of the last meeting read and confirmed.

Considered circular No. 21 dated 6th July 1939 from G. S. and resolved that it would not be possible to hold the next annual conference at this place this year, as the Bengal Provincial Conference had been invited to be held here.

Considered the Memo No. 836/E dated 31-7-39 from the second Vice-Chairman, District Board, Nadia. The members of this Branch are extremely thankful to the Vice-Chairman for the action taken to appoint Dist. Board doctors as ex-officio members of the managing committee of the District Board aided schools.

Circular No. 24 dated 22nd July 1939 from G. S. read and noted. Monthly accounts for the month of July 1939 were examined and passed unanimously.

Scientific discussion on malaria were made by the members.

Meeting held on 10-9-39. Dr. P. Pathak was in the chair. 11 members were present.

Proceedings of the last meeting were read and confirmed.

Circular Nos. 27 to 32 from the G. S. were considered and suitably replied.

Scientific discussion on various medico-legal cases were made by the members present.

Dacca : Meeting held on 19th August 1939.

This meeting expressed its deep sense of sorrow at the sad and sudden death of Dr. B. K. Sen, late Secretary of the Branch, and sent its heart-felt condolence to the bereaved family. Further resolved that the copies of the resolution be sent to the press, *I.M. J.*, and his son.

Indore : Proceedings of a meeting held on 19-8-39 with Dr. N. A. Bande in the chair.

Minutes of the last meeting were read and confirmed.

It is proposed, for increasing our membership, that (a) medical students should be enlisted in greater number (b) the G. S. should be requested to give us a list of present members, (c) all local members should try to induce their friends to become members (d) Branch Secretary to see doctors outside, in Dewas, Dhar, etc.

Resolved that Dr. Fadnis will prepare a list of enquiry regarding the present condition of the Family Fund and present it to Dr. Sarangpani and Deshpande—our local directors—for enquiry from Bombay.

Dr. M. R. Fadnis showed the records of some cases of anaemia treated by him by raw liver in the central jail, Indore.

Dr. Sharangpani showed in the meeting his file of Family Fund letters up to date.

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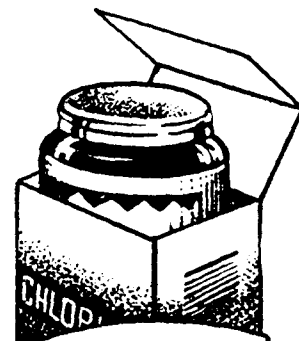
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ADDRESSES AND ARTICLES

A Preliminary Enquiry Regarding the Incidence and Distribution of Infantile Biliary Cirrhosis in India

• Dr. S. Balasundaram, Director, Ehrlich
Laboratory, Madras

There are many research workers in our country who are trying to find out the exact ætiological factors in the production of the disease called infantile biliary cirrhosis. The symptoms and the peculiar phenomena observed in children suffering from this disease have been published from time to time by different observers with their own conclusions about the probable causes which may be responsible for this condition. Some are even now actively in its investigation with special reference to the pathology, symptomatology and histopathology of the liver and other organs involved. Unfortunately, though good lot of work has been done in these directions, definite statistical data regarding its incidence are lacking and this has been a handicap to the research worker.

To my mind, any work taken up for investigation into the causation of this disease is not worth the trouble, unless we know its incidence and geographical distribution, not to speak of the age and sex incidence, which may form the basis for any theory as to its causation and pathology. Obtaining of statistical data is a fairly difficult task in our country. I have tried in my own way to obtain information by the helpful co-operation of Government institutions and their medical officers who willingly gave what little help they could. There are no published statistical data regarding the subject and the difficulty of obtaining information even from Government institutions was rendered more difficult by the fact that almost all the Provincial Governments and Public Health Bodies in India have not considered this disease as a separate entity to be included in their annual reports. This may be due to the fact that many of the children suffering from this disease are not often brought to State hospitals for treatment.

My enquiry consisted of:

1. Asking for information from the District Health Officers of various districts of the Madras Province.
2. Studying of the statistical records of some of the City Hospitals and the case sheets of children suffering from this disease.

3. Asking for statistical data or information from the Health Departments of various Provinces.

4. Eliciting information from the practitioners who are treating a very large number of cases of this disease.

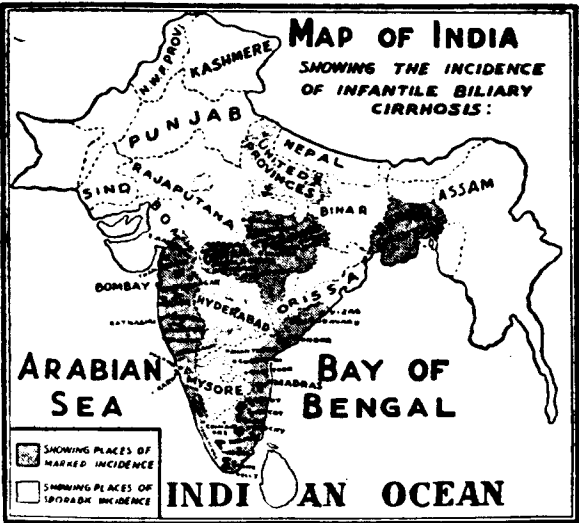
I cannot say that I have been very successful in my efforts in these directions, but thanks to the interest and willing co-operation shown by some of the medical officers in our own and other provinces, I am able to publish now a consolidated result of my enquiry. It is essentially of the nature of a preliminary report.

Though many of the District Health Officers and District Medical Officers were unable to give me definite history and other particulars of cases treated, yet I was able to get enough information from them, and also from the practitioners, to show that the disease is prevalent in the following districts of our presidency:

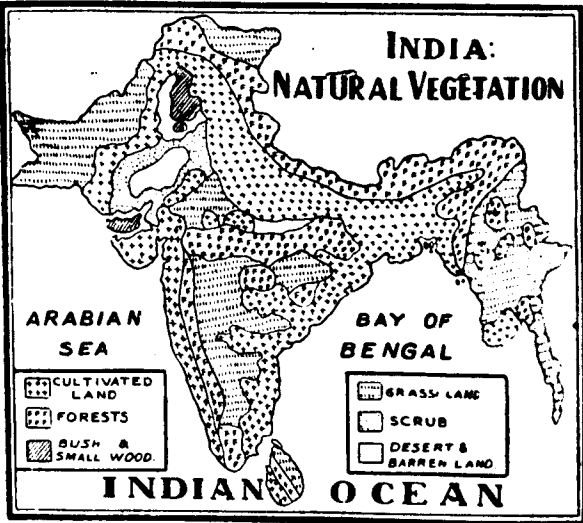
Madras,	North Arcot,
Tanjore,	Coimbatore,
Trichinopoly,	Chittoor,
Madura,	Cuddapah,
Salem,	Anantapur,
Malabar,	Guntur,
Tinnevely,	E & W Godavary.
South Arcot,	

Probably it is also to a small extent prevalent in other districts. Mysore, Bangalore, Pudukottah, Travancore and the Nizam's Dominions are also affected. Thus it will be seen that the disease is prevalent throughout the presidency especially along the sea coast and the deltaic areas. The Surgeon-General with the Government of Bombay was very kind to give me valuable information regarding the incidence in his presidency. From the information obtained from him, I find that cases are reported from the following districts of Bombay Presidency: Thana, Kaira, Ahmednagar, Nasik, East Kandesh, Sholapur, Dharwar, Belgaum, Bijaipur, Karwar, Ratnagiri, Kolaba, Satara, and Bombay city. The Bombay Municipality was also kind enough to give me some information through the Surgeon-General with the Government of Bombay. The following places are referred to as reporting cases of infantile biliary cirrhosis: Cavel, Mandvi, Dhobyatalas, Bassein, Suparibad, Thagurdwar, Thana, Matunga, Manmad, Nasik, Ghatkopar, and Fanaswadi.

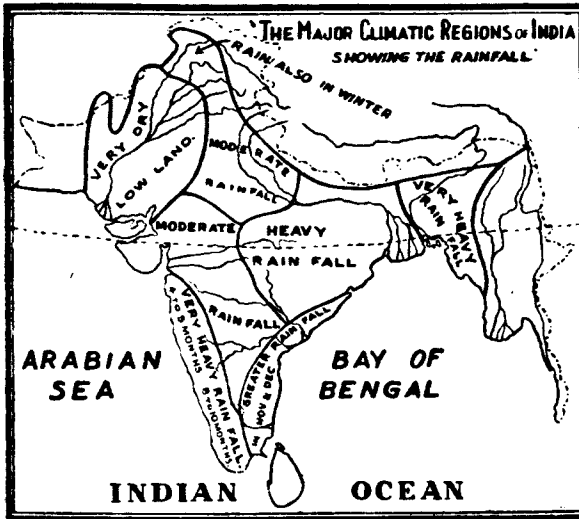
The Inspector-General of Civil Hospitals, C. P. & Berar, has also given his valuable help in finding out the incidence in his province. It is found to be prevalent in the following places: Sangor, Akola, Seoni, Nimar, Amroati, Khandwa, Buldawna, Jolgaon, Nagpur, Jabalpur, Yeotmal, Betul, Banda, Wardha, Raipur, and Koshangabad.



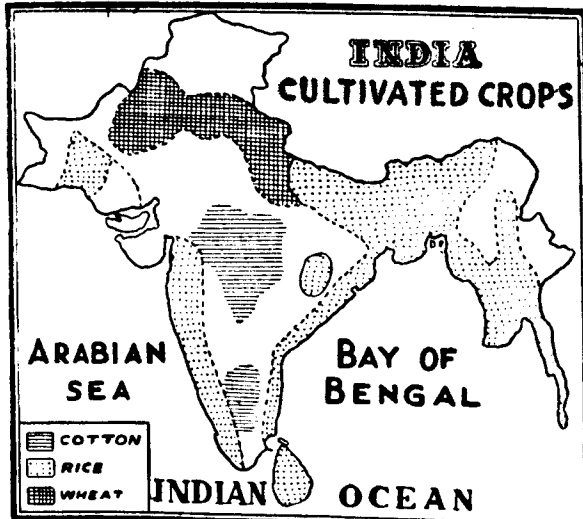
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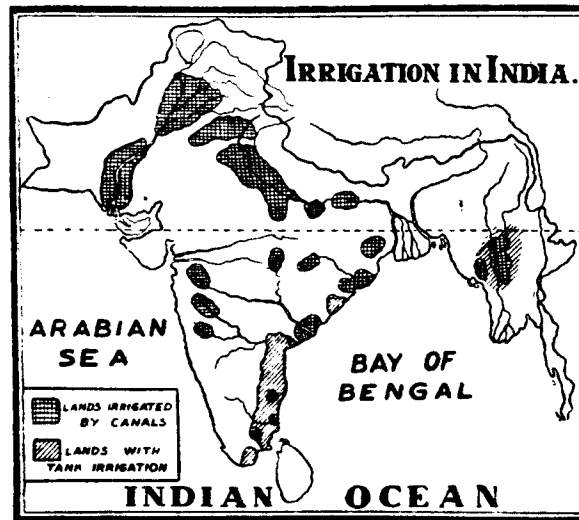
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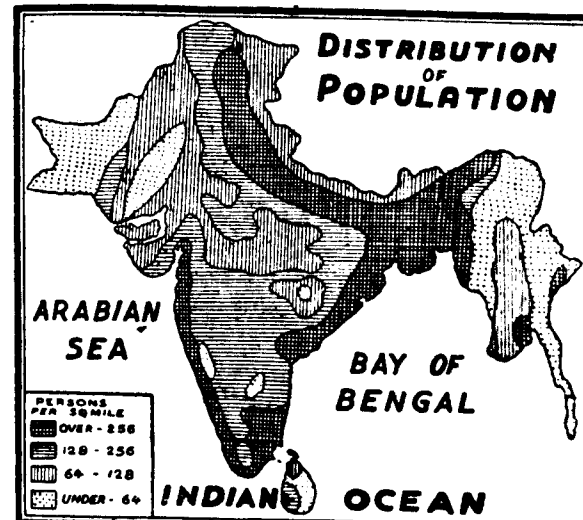
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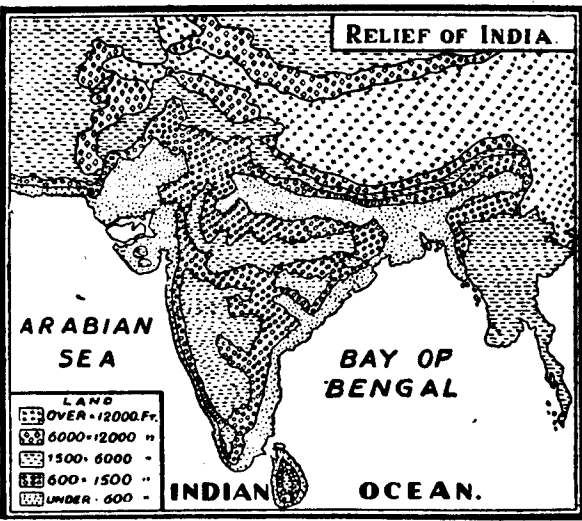
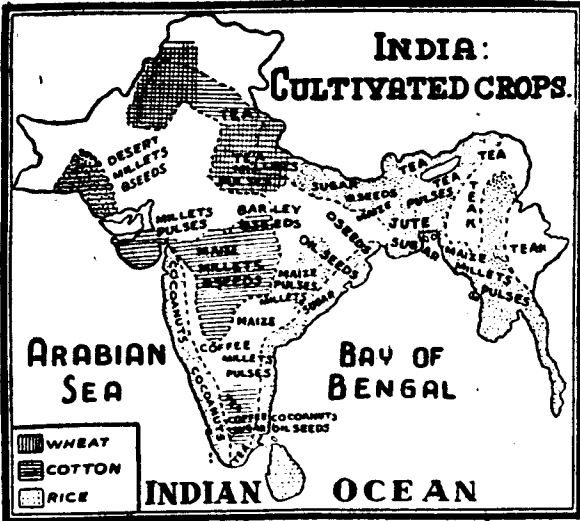
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The other provinces are unable to give information on the subject either because it is not prevalent there or because they are unable to get the information. The disease is prevalent in Bengal especially in the deltaic area and cases have been reported by various workers, and in fact the disease was first observed in Calcutta. From the information available so far, that the disease is fairly widespread in India is evident and that it is markedly prevalent in the deltaic areas of the Madras Presidency and in lower Bengal is a matter of interest for us. It is also found to be extensively seen in the Bombay Presidency and in the Central Provinces. A map showing the places of distribution of this disease is appended.

The age incidence of this disease can be based on evidence obtained from 544 cases out of which the Bombay Municipality supplied 18, the Surgeon-General with the Government of Bombay 226, Jubbalpore (C. P) 38, and 27 cases which came under my personal observation. Other cases from various other places also have been tabulated below showing clearly the age incidence as observed from them.

Source of Information	AGE INCIDENCE			
	No. of Cases	Between 1 & 2 Yrs	Between 2 & 5 Yrs	Above 5 Yrs
Surgeon-General, Bombay Municipality, Bombay.	226	130	60	27
Jubbalpore. C. P.	38	29	8	1
Civil Surgeon, Nagpur	8	7	1	...
Civil Surgeon Amroati	52	17	15	20
Civil Surgeon, Akola.	2	2	...	...
Main Hospital, Seoni	5	1	1	3
Madras. (Self)	27	14	18	...
D. M. O. Tinnevely.	168	128	36	4
Total.	544	340	147	57

From the above table it may be seen that the disease is very common between the ages of 1 and 2 years though it is not uncommon to find it prevalent in children aged even above 7 years.

The male sex seems to be peculiarly predisposed to this disease, as I find that nearly 2/3 of the cases are from the male sex. This fact is amply shown by the previous observers also, though much importance is not attached to it. The last census of India taken in 1931 shows that out of the total number of children upto 5 years the females are predominant. This fact has been observed in every province and in every community. At the same time it is of some interest to note that after the age of 5 there is a predominance of males. The following Table will give us the information as obtained from the Census Report of 1931 with regard to sex predominance, between the ages of 1 to 10.

TABLE OF SEX PREDOMINANCE AMONG CHILDREN					
Province	Age Range	Total	Males	Females	Predominance
(a) religious					
123946					
INDIA	All ages	335,869,348	161,981,125	162,786,464	M
	0 to 5	51,447,030	26,446,614	25,000,416	F
	5 to 10	43,705,947	22,987,631	20,718,316	M
MADRAS	All ages	46,740,107	23,082,939	23,657,168	F
	0 to 5	6,779,600	3,392,088	3,446,612	F
	5 to 10	6,010,063	3,031,434	2,978,629	M
BOMBAY	0 to 5	3,248,579	1,617,255	1,681,324	F
	All ages	21,801,745	11,471,543	10,330,202	M
	5 to 10	28,197,45	14,867,71	13,329,74	M
C. P.	All ages	15,507,723	7,761,818	7,745,905	M
	0 to 5	2,424,149	1,188,162	1,235,987	F
	5 to 10	19,589,64	9,981,119	9,608,445	M

TABLE SHOWING THE PREDOMINANCE OF FEMALES UNDER 5 YEARS IN DIFFERENT COMMUNITIES.

Com- munity	Age	Total	Males	Females	Sex predo- minance
Hindus	All ages	238614268	122181055	116433213	M
	0 to 5	35727673	17806196	18121477	F
	5 to 10 years	30449951	15870748	14579203	M
Moslems	All	77085896	40498470	36587426	M
	0 to 5	12415995	51933283	6223712	F
	5 to 10 years	10556081	5613744	4942337	M
X'ians	All	5964002	3054588	2909419	M
	0 to 5	963456	481463	481993	F
	5 to 10 years	797527	407149	390378	M

From the above Tables it may be seen that females are predominant under 5 years of age and males are predominant in the total population as seen from the figures given for all ages. Whatever may be the cause for this particular predominance of females under the age of 5, it is a fact that it is so in all communities and in the three provinces as shown above. Such a predominance of female children suggest to us that in a disease affecting children aged under 5 years a large number of females should be affected, or at least an equal number of females and males. On the other hand we find that more males are affected which shows that the male sex has got a particular predisposition for this disease.

NUMBER OF CASES AS PER CHIEF COMMUNITIES

Total	Hindus	Moslems	X'ians
432	375 (including 7 Marwaries.)	42	15

RELATIVE POPULATION OF THE CHIEF COMMUNITIES

Provinces	Hindus	Moslems	X'ians
MADRAS	5925319	451417	519443
C. P.	1338223	682854	50584
BOMBAY	16616819	4414048	317042

From the above figures it will be seen that compared to the small number of Moslems found in the Provinces, the incidence of nearly 42 cases in about a total of 400 and odd cases should make us conclude that the disease is as much prevalent among the Moslems as among the Hindus and the incidence is not quite in proportion to the relative strength of the communities. This fact is of great significance as the previous observers have all been stating that only the Hindus are affected and the Moslem community is fairly free. The figures show otherwise.

I am annexing maps of India showing relief, the major climatic regions, irrigation, natural vegetation, cultivated crops and distribution of population along with a map showing the distribution of the disease itself. From a reference to map 1, it will be seen that the disease is common in the Deccan Plateau and the Ganges Delta, especially in the plains which are not over 2500 feet above sea level. The sea coast seems to have a peculiar affinity for this disease as compared with the interior. At the same time one should note that it is not found to be prevalent in the Indo-Gangetic plain even though there are places there which are less than 2500 feet.

From a reference to map 2, we can easily note that the disease is prevalent over an area where there is a moderately heavy rainfall.

A reference to map 3 will show that the disease is specially prevalent at the places where many rivers take their origin as in the Deccan Plateau and in the deltaic areas where lands are irrigated by canals. But at the same time we should be able to find out the reason why in the Punjab and in some portions of the United Provinces where irrigation by canals is very common, the disease is not prevalent particularly in the former where this irrigation system has attained its zenith.*

A reference to map 4 would show that the disease is found in places where there are cultivated lands or rain forests. But once again we have to question ourselves why it is not prevalent in the Indo-Gangetic plains where there are plenty of cultivated lands and forests.

A reference to map 5 would show that the disease is particularly prevalent in the rice-growing parts of India. This fact appears to be important as it is only in this that the Indo-Gangetic plain differs from the other cultivated areas in the Deccan: the Deccan and the eastern part of the Indo-Gangetic plain where the disease is prevalent grow only rice, while the rest of the Indo-Gangetic plain grow wheat. The fact that the disease is more prevalent in the rice-growing areas than in the wheat-growing areas is very suggestive.

A reference to map 6 will show that the prevalence of the disease has little to do with the density of population, because in some portion of C.P. where the population is only 64

* The disease seems to be common in the Punjab also, vide *Ind. Med. Jour.* 30, 648. Ed.



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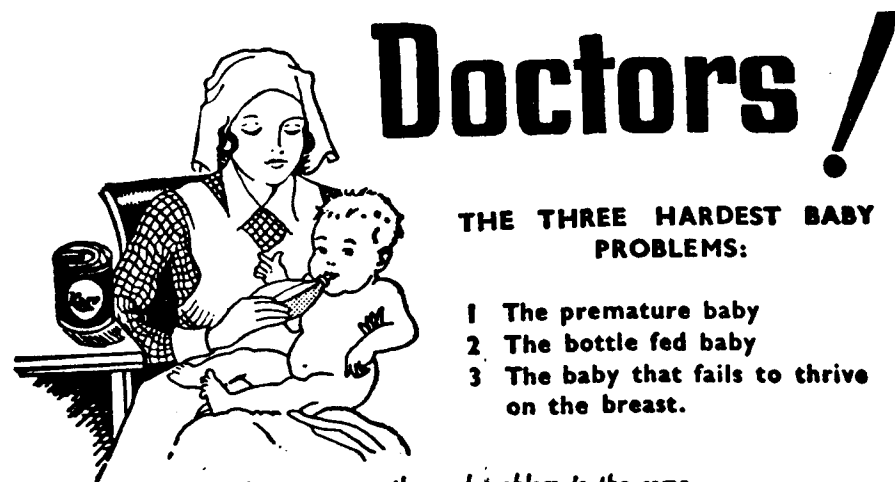
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to 128 per sq. mile the disease is prevalent to a large extent and in many places in North India where the population is over 256 per sq. mile the disease is not prevalent.

One other point worth mentioning is that among the chief minerals in India, manganese is found in sufficient quantity in the southern portion of Bombay Presidency, the northern areas of Central Provinces and Madras Presidency where the disease is prevalent to a large extent. Whether it has got any significance or not remains to be investigated.

CONCLUSIONS

1. The disease is prevalent in major part of Madras Presidency, the C. P., the southern portion of Bengal and Bombay Presidency.

2. Though the disease is noticed in children aged 1 to 7 years and more, it is particularly and markedly prevalent in children aged between 1 to 2 years.

3. The male sex appears to be predisposed to this disease.

4. Hindus and Moslems are affected equally proportionate to their strength in the total population.

5. The disease is common in the deltaic areas of India which are not over 2500 feet above sea level which are chiefly growing rice—the lands being irrigated by canals and rivers.

6. The density of populations seems to have no bearing on the prevalence of the disease.

7. The manganese areas in the Central Provinces, Bombay and Madras Presidencies are exactly the places reporting infantile biliary cirrhosis. This may be of some significance which requires investigation.

I am greatly indebted to all the District Health and Medical Officers of my province, the Superintendents of the City Hospitals, the Curator of the Madras Records Office, the Surgeon-General with the Government of Bombay, the Inspectors-General of Civil Hospitals in Berar and C. P., and other provinces, the Public Health Commissioner with the Government of India, and some general practitioners who gave me valuable help in obtaining information and enabling me to publish this preliminary report about a disease which takes a heavy toll of children in our country. My sincere thanks are due to them.

A plea in Favour of Perineal Lithotomy

• Dr. Raja Ram, M.R.C.S. (Eng),
L.R.C.P. (London), Phillour, Punjab

Perineal Lithotomy is an old operation, somewhat fallen into disuse. But I would like to revive this old operation which was being practised in India since the period of Dhanvantri and his disciple Shustra. It was also practised during the post-Aryan period so much that foreign surgeons travelled long distances to come to India to learn its technique. Even Hippocrates visited Syria, Libya and Scythia to learn the operation. Alexander the Great, at the time of his invasion of India, engaged the services of local practitioners, whose wisdom was proverbial.

To-day we like one thing and to-morrow we discard it. This is human mentality. When I was a student, perineal lithotomy was practised in certain hospitals, but it has now been given up in favour of suprapubic lithotomy. Certainly suprapubic lithotomy is an operation of choice in modern surgery and so I have been doing uptill 1935. An abrupt change occurred in my mind and I began to do perineal lithotomy in order to avoid the following complications met with in my practice after supra-pubic lithotomy.

Gangrene of the bladder wall has proved nearly fatal in every case. It occurs only in old debilitated patients. I have found that two or three days after the operation, the edges of the wound assume greenish or blackish appearance. Gradually the gangrene spreads to the bladder wall with usual symptoms of septicæmia and practically all the patients die. This is a common complication noticed by me after the age of fifty. The gangrene occurs in septic as well as apparently healthy bladders. Once the gangrene start, whole of the bladder wall sloughs away within a week. In apparently healthy bladder, the old infection may flare up by trauma of the operation. Anti-gas gangrene serum has not proved efficacious in my hands.

Peritonism is not an uncommon complication in children. Though in good number of cases it can be combated by fomentation, mild purgation, injection of pituitrin or eserine, yet it has proved fatal in a small number of cases.

Peritonitis is also not an uncommon complication. The infection perhaps spreads by the lymphatic channels. Its treatment is similar to peritonism.

Hæmorrhage sometimes takes place by injury to the superficial vesical veins lying in the subserous tissue of the bladder wall. It is generally controllable by ligaturing the vessels, but unfortunately in one child secondary hæmorrhage took place with fatal result.

Fistula formed in one case, but it eventually healed by energetic treatment.

Shock is sometimes a grave complication in abdominal surgery and I remember having lost one infant after supra-pubic lithotomy.

Choloroform poisoning is a rare complication but I remember having lost one patient by it.

Uræmia develops in old patients and is certainly a fatal complication.

Broncho-Pneumonia is generally of hypostatic variety and proves fatal if once developed. I remember having lost one patient 10 days after the operation.

Pelvic cellulitis has also been noticed in certain number of cases which prolongs the hospitalisation of the patient.

These complications have always occupied my mind. To lose even one case out of a hundred is no credit to the surgeon if he could avoid it. I, therefore, made up my mind to resume perineal lithotomy and watch the results. The simplicity and direct visualisation of supra-pubic lithotomy are attractive. It is generally believed that perineal lithotomy is a long tedious operation with innumerable complications. The following are the complications generally met with :

Hæmorrhage from operation wound is said to be a serious complication not easily controllable causing a considerable amount of anxiety. Certainly the wound in perineum is a deep one and the search of blood vessels is a hard task, but I have found out by practice that, plugging the wound thoroughly round the drainage tube with sterilised gauze soaked in carbolic vaseline or oil is very efficacious. The packing is removed after 48 hours. I have found it very reliable. No hæmostatic drug like adrenalin is needed. In my opinion it is superfluous. The greasy dressing as above described also facilitates the removal of packed gauze without further oozing.

Impotency is said to be another complication. None of my cases have developed this though I always make thorough inquiry. The explanation is that the opening of the ejaculatory duct situated in the prostatic portion of urethra is traumatised and the process of fibrosis blocks the opening, thus obstructing the passage of seminal secretion. Really speaking the prostatic portion of urethra is not incised during operation but the approach is made through proximal end of the membranous portion of urethra. It is only the lithotomy forceps which is passed through the prostatic portion of urethra to catch the stone from the bladder and to remove it through perineal cut. Hence I do not think that so much trauma occurs to the prostatic urethra as to seriously hamper the opening of ejaculatory duct. I am inclined to think that it might be due to fault of endocrine glands or gonads. Even if it is presumed that this complication does arise, one should always adopt the safest procedure to save the life of the patient. I therefore consider the perineal route as the safest to extract stone from the bladder.

Urethral stricture is said to be another complication but none in my series of cases developed it. It is my routine to pass full-sized catheter or sound to every patient prior to allowing him to leave the hospital, and satisfy myself as to the patency of the urethral canal.

Urinary Fistula is another complication but it is rare. Only one case in my series developed it. It certainly prolongs the hospitalisation of the patient, but it eventually heals up without the development of stricture.

In one case under reference it was due to the use of drainage tube of bigger size which compressed the lumen of the distal cut end of the urethra. The constant irritation and compression of the tube incited inflammation, and formation of granulation and fibrous tissue which blocked the lumen and obstructed the onward passage of urine. As the drainage tube was passed into the bladder through the proximal cut portion of urethra, naturally the stricture could not occur there. The fistula did not develop in any of my other cases, so I am inclined to think that the larger size drainage tube was the only cause of this complication. I have made a routine now to pass straight sound regularly for two or three days after the removal of the drainage tube. Perhaps it may be the reason that I do not see more cases of fistula after perineal lithotomy.

THE OPERATIVE TECHNIQUE

Preparation.—There is no special preparation required. A dose of castor oil at bed time and soap and water enema on the next morning is enough to clean the alimentary canal. The perineum is shaved and antiseptically cleaned.

Anaesthesia.—I have nearly given up general anaesthesia. I consider intrathecal anaesthesia to be the safest especially in old patients who are a bad risk. I inject stovain (Barkes' formula) either at the third or fourth lumbar interspace. If I ever administer general anaesthesia, it is only in very young children to avoid their yelling. The children are sometimes uncontrollable and cause a great fuss on account of horror of the operation. I prefer stovain to novocaine because the former does not cause headache and vomiting as is experienced in the latter. Stovaine does not even reduce blood pressure so much as by novocaine. I have experienced that stovain injection causes relaxation of musculature of bowels; so faeces and flatus are passed involuntarily. I inject strychnine and digitalin subcutaneously so as to keep the blood-pressure normal and if needed I inject pituitrin from $\frac{1}{2}$ to 1 c.c. Immediately after stovain injection the patient is laid down on his back, the puncture of injection being covered with benzoin and protected with a pad of folded sterilized towel. Though I have never seen a case of headache after stovain anaesthesia yet as a precautionary measure I keep a wet pad on head during the course of operation and sometimes afterwards. Sometimes the patient has an attack of shivering, but this could be avoided by keeping the operation table and operation room reasonably warm especially in cold weather. Immediately after the operation the patient is put in warm bed with hot water bottles in it. If need be, a dose or two of stimulant and hot drinks would suffice to prevent shivering. Retching and vomiting could also be prevented by hot drinks and diffusible stimulants. In one case I noticed a severe attack of flatulence which was easily controlled by propping the patient up in Fowler's position and administering a dose of Tr of ginger. I would like to impress at this stage that one should never forget the proverb "prevention is better than cure". If it is strictly followed, one should never experience anything sad.

Position of the patient.—After the administration of anaesthesia, the patient is laid down on the same operation table in lithotomy position. If lithotomy table is not available

the legs and thighs are flexed and controlled by assistants. The perineum is cleaned, sterilised by Tr of iodine, and covered with sterilised towels.

Before the operation is commenced the following instruments are kept ready in the following order:—(a) Median staff. (b) Scalpel. (c) Dissecting forceps. (d) Artery forceps. (e) Tissue forceps (if available). (f) Probe. (g) Teal's gorget. (h) Hegar's Dilators from No. 1 to 6. (i) Suitable lithotomy forceps. (j) Drainage tube introducer (if available) (k) Drainage tube of India rubber. (l) Suturing needles. (m) Catgut. (n) Silkworm gut.

The median staff is introduced into the bladder. The penis is stretched over it and held by the assistant inclined towards the abdominal wall along with the scrotum as to provide more space at the perineal region. The scalpel is now held in the right hand and the skin of the perineal region being controlled with the left hand is incised over the groove of the median staff. If one has enough practice, he can reach the urethra merely by one stroke. The urethral wall generally slips before the scalpel on account of its looseness and elasticity. I have found by experience that if the superficial wall of urethra be just punctured to enable the probe-pointed end of the gorget to go in, the latter is moved up and down into the groove of the staff to enlarge the opening sufficient for the broader end of the gorget to pass through. When the opening is sufficiently enlarged, the gorget is pushed back into the bladder cavity with its concavity upwards being guided by the groove of the staff. When the point of the gorget is obstructed by the terminal projected end of the groove of the staff one feels that it is in the bladder. Now the staff is withdrawn, but sometimes it is difficult to disentangle it from the point of the gorget with which it gets locked. It requires a little tact and patience to dislodge it. I generally push the end of the staff upward with the right hand and the end of the gorget backward with the left hand and slowly withdraw the staff out. But if the staff be pushed into the bladder a little further and then its inner end is raised upwards it makes the process still easier. When the staff is out, the dilatation of the internal meatus is conducted for the easy passage of lithotomy forceps. I generally do this by the right index finger which is pushed through the upper grooved surface of the gorget into the bladder. The internal sphincter resists a little but subsequently yields before the pressure of the finger. In case this is found difficult it may

then be dilated by Hegar's dilators from No. 1 to 6. Even after dilatation with Hegar's dilators, the index finger has to be introduced into the bladder for exploration. The bladder cavity is examined and suitable lithotomy forceps is introduced into it being guided by the upper grooved surface of the gorget. The most important point, in my opinion, is that jaw of the lithotomy forceps should be well pressed into the groove of the gorget whilst being introduced into the bladder. If this precaution is observed no severe injury to the internal meatus or bladder wall results. When the lithotomy forceps is in, the gorget is slowly removed to provide ample space for the forceps to catch the stone easily which may even be lying behind the gorget. Immediately the gorget is removed the closed jaw of the lithotomy forceps is moved to and fro to feel for the stone. When the stone is located, the bladder is pushed downward by pressing in over the supra-pubic region with the left hand and the jaw of the lithotomy forceps is opened by the right hand. Thus the stone slips into the jaw which is caught tightly and extracted slowly by screwing movements. After the removal of the stone, bimanual examination of bladder cavity is conducted for thorough exploration which is done by inserting the right index finger into the bladder cavity and pressing the bladder wall downward with the left hand placed on the suprapubic region. Once you are satisfied that the cavity is empty the gorget is reintroduced and the drainage tube of India rubber equal to the size of No. 12 catheter or a bit bigger is inserted into the bladder cavity being guided by the concavity of the gorget. The gorget is now removed. If there is bleeding, the area is packed with sterilised gauze soaked in carbolic vaseline both above and below the drainage tube and if need be on the lateral sides too. Then the skin and the underlying muscles are stitched together by interrupted sutures, the tube is fixed to the skin by two lateral stitches and its superfluous portion is snipped off. The usual surgical dressing is applied and bandaged.

I consider dilatation of internal meatus as a most essential procedure. If this is not done incontinence of urine might set in and the normal function of the internal sphincter be delayed for a considerable time. The patient is now put on a warm comfortable bed in low Fowler's position. Buttocks and thighs may be supported by air cushions and this would add to the comfort of the patient. There is practically no shock after the operation and hence there is nothing to

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Tear gas is employed by gun-men and robbers in America and by the continental police to disperse an unruly mob. It is an irritant to the eyes causing smarting, profuse flow of saliva and lachrimation, making people almost impossible to see. Effects are temporary and soon pass off leaving no damage to the eyes.

Blister gas is an irritant. In severe cases it causes deep and extensive blisters.

PERSISTENT GAS

The persistent ones are chiefly made up of mustard gas. It is an oily liquid with faint smell which is readily overlooked. It is absorbed by the skin. It evaporates and its effects are persistent. This is dangerous in many ways. The ground on which it has splashed gives out vapour which may affect the eyes, lungs and exposed parts of the body. Secondly vapour may be absorbed by the clothes and may penetrate into the skin and cause burns after the clothes are removed.

If the contaminated or splashed objects are touched, blisters may form. A person who is contaminated may be a source of danger to others. A man whose boots are splashed may give out vapour from his boots and this may cause injury to others in the room. The gas is only recognised by smell but this may pass off unnoticed. Symptoms appear after 2 to 8 hours when it is too late. Eyes are most affected; they get sore, swollen, accompanied by severe pain in the head, eyes, and sore throat with dry cough. The severity of burns depend upon the concentration of gas. Thus if more gas is present short exposure will cause blisters. Treatment is as follows: wash the eyes with normal saline; drop liquid paraffin into the eyes and instruct the patient not to rub his eyes. Burns and blisters may be treated with cod liver oil dressing. We must prevent sepsis from blisters.

WARFARE AND GENERAL PRACTITIONERS

Guest² writes that the general practitioners should be fully aware of the knowledge of aircraft, bombs, explosives, and their effects on human bodies and a knowledge of the method of decontamination of clothes and other articles. In untrained population the damage caused by air raids would be enormous. Knowledge as to how to protect against air raids can be best propagated by means of cinema films and

actual demonstrations. The whole country can never be attacked as it requires a great number of air planes.

There are several gas masks in the market. It has a rubber covering for the face and there is a filter through which poisonous gases are obstructed from reaching the lungs. This filter contains charcoal and wool. But mustard gas is on a different level. Gas masks afford safety against this gas on the face, but the other parts of the body are fully exposed. Mustard gas causes great damage to the skin. It burns it, but it is not like ordinary burns. Erythema and blisters appear on the skin. It is not permeable on glass and metal. If mustard is sprinkled on food and then eaten it would cause blisters in the alimentary canal. It takes 5 minutes to get absorbed from the skin and 20 minutes from clothing.

Treatment.—Remove liquid by dry swab of cotton wool and apply petrol or liquid paraffin on it, and then apply bleaching powder mixed with water to form a cream: keep for one minute and then wash with water; the eyes may be washed with water; avoid contamination. Remove clothings and wash the surface with soap and water. Bleaching powder neutralises the effects of mustard gas³. Bleaching powder can be mixed with water in proportion of one to two and this should be kept in tightly fitted enamel jars. The eyes may be washed with water or saline and then atropine 1% should be instilled. Cocaine should never be used. For the skin lesions dettol or cod liver oil dressing is better. Tannic acid can also be used with advantage. Functional photophobia at times results.

Since all the victims of the gas attack will not be able to secure best medical aid it will not be out of place to mention as to what one should do in our own houses to escape the effects of gas.

Our rooms can be made gas proof by inexpensive materials and simple methods. How to do this is given in the *House-holder's Air Raid Precaution Charts* of the British Home Office. It is a wise strategy to keep the public as scattered as possible. So the home is the proper shelter for air raids.

A room 10 by 10 feet will accommodate 5 persons for 12 hours. A cellar is the best. Next a basement or a room on the ground floor, with one small window on the side of the house away from the wind. Fill in all cracks with pulp, made from sodden newspaper and

² Medical Annual 1938.

³ Ind. Med. Gazette, Feb. 1939.

(Continued at foot of next page)

Tremendous Trifles in Medicine

• Dr. S. T. Ponnuswami Pillai, Retd.
Surgeon, Trivandrum

Patients come to the doctor complaining of slight disorders, which he passes off as trivial, not deserving of notice and simply to satisfy the patients prescribes some anodyne, expectorant, carminative or such other draught. If the patients insist on particular attention being paid he laughs in his sleeves, classing them among the hypochondriacs and dismisses them with some suggestions or stratagems to quiet them for the time being.

All goes well with many cases, but in some—not a negligible number—the same patient may be seen after some days, weeks, months or longer periods, coming again or going to other doctors for treatment of a malady which, though now looks different, may, when gone into, be traced to the insignificant disorder, for the treatment of which he or she had long ago come.

Except in cases of accidents, poisoning or acute infections even serious diseases do not come trumpeting and heralding their advent but sneak insidiously into the body like a thief, slyly get entrenched, secure some safe focus and slowly begin to do mischief from there.

Dr. Muthu's description of how the germ of tuberculosis manages its reconnoitering plans, disguisingly gets admission into the body, finds out and fortifies strategic points and starts its destructive work, deserves quotation here, as, I believe, it applies to all other diseases

(Continued from previous page)

then pasted over with kroft paper. The blanket should be kept wet. Ceiling, crevices in the wall, doors, windows and keyholes should be treated in this manner. The following articles should be kept handy: strings, hammer, nails, scissors, gummed paper, adhesive tape, pot of paste or gum which can be made by boiling flour and water, plenty of kroft and newspapers, a bottle of smelling salt, some safety pins, cotton, wool, tinned food, plenty of water, hot tea or coffee. When the first warning against air raid is given close all windows and doors, put out fires and turn off gas. By the second warning see that all are in the room. By the third warning seal the entrance, rest quietly and do not smoke.

as well. He says: "one of the most important lessons one learns from sanatorium experience is that the tubercle bacillus does not attack the patient all at once, so that he becomes a consumptive in a few days or weeks; but it is like a thief who walks up and down the street for days before he selects his house and having selected his booty, he waits for a favourable opportunity to enter the house, and even after entering it, he hides himself for some time, if the inmates are about, before he commences his nefarious work. So, months and years may elapse between the first attentions the bacillus pays to the patient and his firm grip on him. So subtle is this enemy, so quietly like a thief in the night, does he carry on his deadly work, that I have known patients who never suspected anything wrong with their lungs till they reached the last stage."

Patients can only state the symptoms they feel, even which everyone, not excluding the learned, may not be able to describe accurately. The procedure generally followed by the physician—and that much alone is ordinarily possible—is to treat the symptoms leaving the main root to ramify uninterruptedly underground and grow to gigantic dimensions until at last the case goes out of control, past all hope.

Laboratory aids are not always and everywhere available and possible and even are not free from fallacies in the beginning. Clinical observation must be the main weapon of exploration for getting at the deeply hidden cause, which many a time dodges the search and even diverts towards false and unsafe paths, leading into deep pits.

ILLUSTRATIVE CASES

(1) A person complained of a sandy feeling in the mouth and showed some particles like sand collected from the spittle. The physician attributed it to eating unclean food stuffs or with unwashed hands; the protest against such causes was only a cry in the wilderness. In a few months the quantity of the sandy particles began to increase and on careful medical examination a calculus was detected in one of the submaxillary glands with gravel particularly accumulating around.

(2) The patient's complaint was that he was feeling pain and itchiness along the cartilages of the lower three or four ribs of one side, and also just behind on the back, along the heads of the same ribs. Nothing visible on the skin or any other symptoms

* Pulmonary Tuberculosis and Sanatorium Treatment by Dr. Muthu, Ch. VII.

noticeable. The pain and scratching sensation began to increase and in a week eruptions began to appear along the course of those ribs indicating herpes zoster.

(3) Intense pain was felt all over the body, increasing gradually to excruciating extent, which even morphia injection was not able to ease much. In 24 hours the pain completely stopped of itself and there were seen on several parts of the body discoloured patches of *tenia versicolor* and no other complication followed.

(4) A professor, famous for lecturing, was observed suddenly stopping his speech and movement of the hand for a few seconds and then resuming them. This was occurring for some months, the intervals gradually decreasing and duration of stoppage increasing until at last it resulted in *hemiplegia with aphasia*.

(5) Raising the thighs up above the normal height when walking was noticed; the patient gradually began to feel weak in the lower extremities and slowly developed symptoms of *tubes dorsalis*.

(6) A case of feeling heaviness of the lower extremities while walking, advancing to dragging of the feet, led to *paraplegia*.

(7) Enlarged size of objects appearing larger in size than the actual was noticed in the vision of one eye; in about a year *cataract* of that eye formed.

(8) Patient accidentally felt a strange condition; he can give no account of its origin, duration or development. On one gluteal region, a little external to and above the anus, a space in the form of a short narrow canal was felt which when pressed produced a gurgling sound as of air and liquid movement. No pain, uneasiness, or any trouble was experienced. It had no communication with inside or outside, either at the buttock or bowl. He was asked to come again if any new change occurred. A couple of months hence, he came with an opening at the bottom of the suspected canal, allowing the probe to pass slightly upwards and deeply backwards through a blind canal about 2½ inches long, establishing a *blind external fistula*.

(9) Taste of blood in the mouth he may due to gingivitis or to diseases of the lungs, liver, stomach, etc.

(10) Patient noticed a small particle of some dirty looking matter on the chest; he brushed it away, but a few days hence it recurred and attempts at removal caused some

pain. Again after a few days he noticed that part covered over by skin, leaving the two ends open, which soon got closed and medical examination proved it to be a *dermoid cyst*.

(12) A child of four had been unsuccessfully treated for many months and by many doctors for vomiting and diarrhoea. A dose of *santonine* and a purge brought out a number of *round worms* and gave immediate and permanent cure.

The points to be noted from these and like experiences are that complaints of patients, which may appear to be trivial, exaggerated or imaginary are generally not actually so, and in the case of small disorders that do not yield to ordinary treatment, they prove to be, in many cases, foretellers or signalmen of some deep-seated, or beginning of outward manifestation of hidden ailments. So it behoves the medical practitioner to understand that the secret of successful treatment lies, not in slighting complaints of patients, but in hearing them patiently, sympathising with their perplexed, confused and, therefore, vociferous behaviour; in noting down the symptoms expressed by the patient and those observed by the physician on as many occasions as possible; recording the gist of the case as to the origin, development, complications etc., upto the final result, and adopting treatment and measures according to the conditions found each time. This procedure shall not fail to enable the physician to "nip in the bud" the bad shoots which may otherwise grow to the size of huge trees, yielding poisonous fruits and ending in dreadful failures.

In so doing, besides getting good results, the doctor shall have the opportunity of learning much, teaching much and gaining much in the interests of the patient and himself.

Misleading Leading Symptoms

The predominant misleading leading symptom is pain. Functional disorders often simulate organic disease. The crises of *tubes* is apt to be misleading. True epilepsy may begin late in life without syphilis. Enlargement of organs like spleen and liver may cause puzzling symptoms. A symptom that had several times distracted my attention from the true position was the "cardiac shock" which replaced the rigor in certain acute diseases. Lord Horder, *Lancet*, March 25, 1939, p. 699.

THE Indian Medical Journal

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The Position of Vaccine Therapy

Jenner discovered vaccination against small-pox. Pasteur protected animals against bacterial diseases by injection of attenuated cultures of the infecting organism. He thus established for the first time the principle of active immunity by means of bacterial vaccine.

The next step was to apply this principle to the treatment of bacterial diseases of man. Pasteur carried his animal experiments with live cultures of the infectious organism. Living vaccines are obviously dangerous to man, but Sir Almroth Wright applied the principle of immunity by preparing prophylactic and curative vaccines from killed cultures. He introduced the now famous and universally used anti-typhoid vaccine, and this was followed by others with various specific vaccines for other specific infectious organisms. Thus in the beginning of the century great hopes were entertained that vaccine therapy would completely control bacterial infections. But experience and further researches have

proved that no tall claims can be made on behalf of vaccine therapy. The results depend on many factors which are now being slowly unravelled and understood. They depend upon the strains of the organisms, the quantity and the quality of bacterial antigens, the response of the human tissues in the formation of antibodies and similar other factors some of which are known and some are not.

Alexander Fleming¹ defines vaccine as a suspension or preparation of killed bacteria used to stimulate the production of anti-bodies in the animal to which it is administered. For a long time it was the suspension of killed bacteria that was used, but of late vaccines are prepared in such a way that they contain not only specific bacterial antigens but also specific toxoid or toxoid-anti-toxins with a view to procure both bacterial and anti-toxic immunity. They may be used singly or in combination or alternatively, for curative or prophylactic purposes.

Toxoid is derived from bacterial exotoxins. By itself it is too lethal for man, but by submitting it to the action of formalin it loses its toxic properties but retains its antigenic power. Even this may give rise to severe local reactions. But this is obviated by the use of toxoid-antigen floccules. This is prepared by mixing the toxoid with an equal amount of anti-toxin floccules. This again is obtained by mixing the toxoid with an equal amount of antitoxic serum, separating the precipitate and suspending it in saline. Toxoid or toxoid-anti-toxin preparations are said to give more or less permanent immunity, the best and the successful example of which is diphtheria toxoid-antitoxin. Fleming finds it difficult to say whether this active immunity would, after a lapse of an year or more, be sufficient enough to prevent diphtheria or tetanus but he has no doubt that the increased amount of anti-toxin in the blood would neutralise a moderate dose of toxin, and that at any rate it would provide the primary stimulus in the body to react more or less effectively against the production of tetanus toxin in a wound or diphtheria toxin in the throat.

Fleming's analysis of the causes of failures of vaccine therapy is indeed interesting, one of which is the use of vaccines prepared from time old cultures. In such old cultures the original bacteria loses its virulence and its antigenic and chemical structure is so changed that it gives neither bacterial nor anti-toxic

¹ Br. Med. Jour., July 15, 1939.

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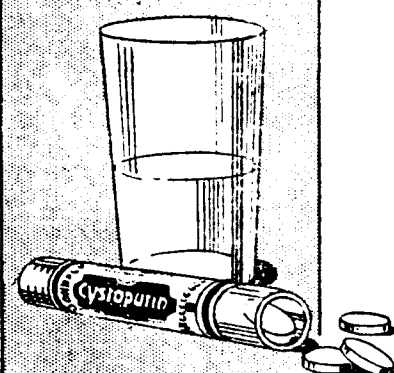
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(Ars Medici, Vol. 18, No. 1)



CYSTOPURIN

immunity. He quotes the instance of Rawling's strain of typhoid bacillus, first isolated by Wright in 1900, and for 32 years used in the United States of America for the preparation of anti-typhoid vaccine. Grinnel in 1932 found that the cultures from the Rawling's strain of typhoid used in the American laboratories were all useless and found ineffective to protect mice infected with a virulent culture, although a vaccine made from a recently isolated culture did protect it. The other important cause of failure is the use of vaccines without ascertaining the exact specific organism which is causing the trouble. Fleming cites the case of an American doctor who tried all remedies for typical spasmodic asthma from which he was suffering: autovaccines from the sputum, removal of tonsils, change of climate etc. He came to St. Mary's Hospital at London where an examination of faeces revealed a pure culture of hemolytic enterococcus. He was treated with a vaccine of this organism, and he remained free from asthma for a period of 17 years afterwards.

These are not however the only causes of failure of vaccine therapy. When it was first introduced in India some 20 years ago, we used foreign vaccines but were amazed to find results not at all comparable to those obtained in Europe. It was soon discovered by our workers that the difference in the results was due to the difference in the strains of infecting organisms. To-day our public and private laboratories are able to put up potent and fresh vaccines prepared from various Indian strains. The importance of using local, and even homologous, strains of organisms in the preparation of vaccines and sera is being fully realised in this country, and utilized as far as practicable by our practitioners. This point was rightly stressed by Major Hamilton of Assam in the recent Aberdeen Session of the British Medical Association where he warned the visitors to India to suitably protect themselves against typhoid and cholera by strains belonging to the area they visit, and he instanced seven deaths in a recent cholera epidemic in Assam, five of whom were found to have been inoculated with a strain of vaccine which evidently was not suitable to Assam.

Apart from these causes of failure which are well recognised in this country and abroad, it is obvious from our present experience that we have not reached the finality in our knowledge and practice of active immunization by vaccines and sera. The gushful

enthusiasm of the last decade is now replaced by the cautious and intelligent use of vaccines and sera, and the now easily available laboratory assistance and the rapid evolution in the proper manufacture of vaccines and sera have enabled us to use them more cautiously and intelligently. They have covered a wider variety of infectious diseases than when they were first discovered, but with the growth of knowledge newer problems have arisen and fresh difficulties have to be faced. There are yet many organisms which can yield a bacterial vaccine but not a toxoid or antitoxin. *Vibrio-cholera* is a typical instance to the point. A combined bacterial and virus vaccine of influenza is said to give a greater protection against epidemic influenza than anyone of them singly. We have now definite means at our disposal to measure anti-toxic response of the blood, but we cannot measure accurately the anti-bacterial response. Clinical results also vary between individuals and communities and between the use of bacterial vaccines, toxoids and toxoid anti-toxin. Flemming brings this out clearly by citing his own experience with regard to staphylococcus vaccines and toxoids: some patients responded well to vaccines, others to toxoids. And he says further that toxoid therapy will cure some vaccine failures and that vaccine therapy will likewise cure some toxoid failures, as, according to him, these two methods are complementary.

While the hopes for and against vaccine therapy are hanging in the balance, chemotherapy has set in recently and seems to have caused a considerable confusion. Pneumonia for which so much money and labour was spent in the preparation of suitable and specific vaccine and serum is now said to be conquered by chemotherapy—simpler to administer, easier to manufacture and quicker in results than the specific vaccines and sera. Last year we uttered a note of warning that this is after all the usual kind of enthusiasm following the wake of the discovery of new drugs². Our remarks seem to be fully justified by subsequent experience, and to-day's position is, according to Flemming and others, that "best results in the treatment of certain bacterial infections will be obtained by a combination of vaccine therapy with the new chemotherapy". We exactly anticipated this, because centuries of experience are against the possibility of an absolute specific remedy even for a single disease. Disease has many facets, and man, its victim, has a curious biological

² Editorial, *Ind. Med. Jour.* Vol. 32, p. 17.

vicariousness in his response to disease and its specific treatment.

Vaccine therapy with all its present and possible future modifications is bound to stand firm on the secure pedestal built by Pasteur. It will fall not by counter-attack but by contesting and proving that Pasteur was wrong. Not one has dared to do that till now.

Adequate Diet in Peptic Ulcer

Till yesterday the profession has been so persuaded as to treat peptic ulcer with absolute rest, deprivation of solid or even semi-solid food, milk in measured quantities, and bismuth as much as possible. If there is no response to this treatment the patient has to be handed over to the surgeon for the excision of the ulcer or for gastro-jejunal anastomosis. The physicians and the surgeons often quarrelled on many points. The surgeons maintained that the offending ulcers ought to be removed and that the cases are sent too late to make surgical interference effectual, while the physicians argued that the primary cause of the ulcer ought first to be treated. But the truth is that neither the present medical nor surgical methods have so far achieved that success as to claim relative superiority in results.

Prof. Meulengracht of Copenhagen University brings in some fresh hopes that peptic ulcer may yet be treated successfully by adequate dieting of such patients. In his address to the section of medicine at the annual meeting of the British Medical Association, Aberdeen³ he speaks with conviction, borne by his experience, that the fundamental principles of the medical treatment of ulcer must be: *rest, relaxation, food—a soft non-irritating food—adequate quantitatively and qualitatively*. It is of less interest to him whether alkali in some form or other, with or without belladonna is given as medicine or not. And he applies this treatment to bleeding ulcers also. He says:

"My attitude towards the operative treatment of bleeding ulcer with a view to haemostasis is theoretical, because I have never referred any patient with bleeding ulcer for operation. I consider that a mortality of 1 to 2 % makes this question unreal for me and relieves of me of the responsibility of having to decide in an individual case whether operation is advisable or not. Of the nine patients who died from haemorrhage, three were over 70 years old, one had chronic nephritis and cardiac insufficiency, bleeding with death rapidly supervening. How could one possibly sort out these few cases before it was too late? No; I leave it to the Providence with a calm conscience, and only when the condition is threatened do I resort to blood transfusion."

Earlier in his speech he said:

"All things considered I venture to assert that the introduction of freer regime has meant a decided decrease in the

³ *Br. Med. Jour.* Aug. 12, 1939, p. 321.

mortality—a decrease so definite that I do not consider it justifiable to continue with the old principles of treatment. The motto logically must be: the more severe the haemorrhage is or has been and the more the patient is exhausted, the more he needs the support of fluid and food."

Thus he would have us treat peptic ulcer in all its stages of development with freer and more liberal diet, *adequate in quantity and quality*. He bases his conclusions on a series of 491 cases of profusely bleeding ulcers. Of these only ten died. One died of perforation with peritonitis six days after admission, and the rest from recurrent arterial haemorrhage.

His regime of treatment is made up of full puree diet, alkali, belladonna, and big doses of iron, and the patients are encouraged to eat *ad libitum*, and drink water and milk as much as they like.

He affirms the view that the food in the stomach does not increase or protract the bleeding, and the advantages he claims are: (1) the patients feel well on such a diet and like it. (2) They escape the disagreeable and dangerous period of exhaustion which in old days was provoked by thirst, hunger, immobility and other tantalizing annoyances which made it difficult or impossible to regain their strength after haemorrhage. (3) It simplifies the work of the doctor and nurses. (4) The mortality and complication rate is lowest.

Though Meulengracht's views are rather sensational yet on close thinking one cannot avoid calling them very sensible, at any rate from common-sense point of view, and from the standpoint of his own extensive experience. He bases his claims not on laboratory research but on clinical records. It is no wonder therefore that he urges the physicians to go to the full length of his regime and not proceed with hesitation or caution. But the editor of a medical journal cannot be so assertive, because he cannot afford to be a propagandist but has to weigh the scales even, and pronounce his judgment. It is obvious that the professor of Copenhagen University talks with sound experience behind him. His reasons are good. His results are encouraging. His methods fall in with modern view against excessive starvation in the treatment of diseases so commonly practised by our ancestors. But he ought to be followed by others verifying his experience. Till then it is prudent to keep an open mind. It looks probable that he has struck at a great truth in the treatment of peptic ulcer dreaded both by the patient and his doctor.

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Medical Instruction in Provincial Languages

The following is a recent memorandum submitted to the Hon'ble Minister of Health, Bombay, by Dr. Jivaraj Mehta and others. We are definitely of opinion that their proposals are retrograde and reactionary for more reasons than one. The memorandum is full of inappropriate and inapplicable analogies, and we regret to note that Mahatmaji's opinions are so quoted as to suit their own arguments without reference to their context. It is said that because European countries impart medical education in different languages without detriment to efficiency our country also can and should impart professional education in the provincial languages. Europe is not a nation, but India is; and we therefore think that it would be dangerous to our national unity if we choose to impart higher and technical education in provincial languages. Such a measure will never create an united India which is our dream today. Already provincialism is rampant and has overflowed its natural limits, and the proposals suggested below, albeit of their authoritative character, will further accentuate the provincial spirit to the ultimate disadvantage of our country as a whole. English should of course be given up, because it is not the language of India. But Hindi should take its place, and its claims to be the *lingua franca* of our country are unassailable. It is spoken by 70% our population. It represents the united culture of all the peoples of India. Its spirit is inherent in every provincial language. This, to our mind, appears to be more useful and practicable proposal than to make each province live like a frog in the well.

We think Dr. Jivaraj Mehta and his colleagues should have been well-advised to have taken the opinion of the organised profession before rushing to the Government with their personal views and plead passionately for their acceptance. So far as we know, this question has not been discussed by the medical associations in this country, and we fail to find any need for hasty opinions or actions by individuals. After all what has this Bombay deputation of self-appointed individuals gained except that they aired their views and felt their own importance in the body-politic of the medical profession? In our opinion they have done a distinct dis-service to the concept of an united India by the inordinate claims to enthrone provincial languages at the cost of the common language of India—the Hindi—which alone can unite us as a nation as nothing else would do.—Ed., I. M. J.

A couple of years ago when the people of this country expressed their unequivocal confidence in the programme of the Congress Party it was with a hope that when they took over the Government of the provinces they would introduce measures which would lead to a betterment in the different spheres of their life. One of the major improve-

ments that was anticipated was the provision of wider educational facilities, *through the medium of their mother tongue*. Such educational facilities would have covered not only formal education, but also vocational and professional education. This hope is particularly strengthened by the opinions expressed by the leaders of the Congress Party in

their speeches and in their writings. In view of these considerations, when the Government of Bombay recently notified their intention of discontinuing the L. C. P. S. course in their medical schools, we were emboldened to place before you for your consideration a scheme for a re-organisation of medical education in this province, particularly with regard to the use of Gujarathi as the medium of instruction at Ahmedabad, and Marathi at Poona. The lead of Mahatma Gandhi in this matter is very clear, as he has referred to it in *Harijan* as follows: "English, having been made the medium of instruction in all the higher branches of learning, has created a permanent bar between the highly educated few and the uneducated many. It has prevented knowledge from percolating to the masses." Guided by this idea, the U. P. Government have recently declared their desire of introducing the provincial language as a medium of instruction in the colleges of the province in the course of next ten years, and the Government of Bombay have made the following declaration in the Legislative Assembly announcing the re-opening of the Deccan College at Poona. "Our aims in matters of higher education" are "to develop the three linguistic divisions of our province as independent units complimenting one another's work and contributing to the advancement of the province as a whole."

In pursuance of this policy they have recently granted recognition to the degree of the Indian women's University where the medium of instruction for all subjects (except English) is the mother tongue of the pupils.

At the present moment, the training of all medical men, the record of hospital cases and their treatment, are being carried out in a foreign language. As a result of this, the most desirable co-operation between physician and the patient does not exist to the same extent as in other countries, and the average man looks askance at scientific medicine, as something alien and imported from other countries. It is probably also for this reason that contributions to the advance of medical knowledge from the people of this country have been relatively meagre, and a large number of medical men fail to appreciate the essential difference between the scientific method which is taught to them in another tongue and scholastic speculation which they come across in writings in their own language.

Till the end of the 17th and the early part of the 18th century medical education in all European Universities was carried in Latin. With the growth of national idea and the introducing of modern European languages in the Universities scientific knowledge suddenly seemed to cast off its scholastic fetters and blossomed out with great vigour in the different centres. This tendency has been steadily progressing to such an extent that in Europe (excluding Russia), with a population hardly greater than that of India, medical sciences are taught in

more than twenty languages and every new centre is vying with others in the quality and quantity of scientific work turned out in its institutions. Even as late as 7 years ago the Flemish language obtained a recognition in certain provinces of Belgium, with a population of only 2 million people, and was gradually replacing French in the Universities in Flanders. Certain provinces such as Quebec and Transvaal have continued their own language even after being incorporated in British Dominions, whereas other countries which have started institutions for teaching medicine have adopted their own language for this purpose. China, Japan, Turkey and Afghanistan, in our continent, can be cited as recent examples in this connection.

In our own country English was introduced as a medium of instruction in medical institutions on the basis of the recommendations of a committee appointed by Lord William Bentinck in 1834. The five members of the committee were divided in their opinion as to "whether instruction would be imparted in an Indian vernacular or English. The Anglicists finally prevailed over the Orientalists, and it was emphatically laid down that "a knowledge of the English language combines with itself the circle of all sciences and incalculable wealth of printed works and illustration, circumstances which give it obvious advantages over Oriental languages in which are only to be found the crude elements of science, or the most irrational substitutes for it." However valid these considerations may have been 100 years ago, they do not possess the same significance in the scheme which is presented here, as medical students would be expected to be conversant with English so as to be able to read medical works and journals in that language.

It has been shown above and also widely accepted by most people who have thought over this subject that education when it is imparted in the mother tongue leaves more lasting impression on the minds of the individuals and stirs up mental processes which are more conducive to research and reasoned thinking. There is no reason to suppose, nor does the experience of other countries suggest, that technical education in different provincial languages in a big country like India would militate against the idea of a united nation. It is our belief that clearer thinking resulting from such an education would, if anything, promote the ideals of co-operation and co-ordination between the members of the medical profession. However, certain objections may be raised against the introduction of provincial languages in medical institutions and may be dealt with here.

The first is the difficulty of terminology. It is often stated that the terminology and text-books must be ready in a language before it could be used as a medium of instruction. But this supposition is not supported by facts. The S. N. D. T. Indian Women's University commenced teaching before text-books in Marathi or Gujarati were available. It is only recently, after an experience of over a

decade, that text-books in these languages have begun to be published. The introduction of Urdu as a medium of instruction into the Osmania University presents a good example. Although H. F. H. The Nizam's Government had previously established a Translation Bureau for the preparation of Urdu text-books, the work of the bureau was not helpful to the medical faculty, because the translated books were not selected by experts and were not translated by specialists in the different subjects. They were to a certain extent inaccurate and unreliable and had become, obsolete, as a result of the rapid advance of medical sciences, by the time the medical college was established. The students even now read English text-books but attend lectures delivered in Urdu. The material prepared by the teachers for their lectures is gradually accumulating and would very soon begin to be compiled into up-to-date books which would supplement the text-books in English. In Portuguese India most of the text-books employed by the students are in French, though the instruction is in Portuguese. In Japan scientific medicine was first introduced by Dutch physicians. As the Dutch teachers were in the habit of referring to a large number of German books, German began to be widely used as the foreign language to be studied by medical students. With the establishment of Japanese Universities the Government engaged German professors on 10 or 15 years' contracts to organise instruction in their institutions, and German became the official language in medical schools. This was only a transitory arrangement. The Japanese assistants of the German Professors, after undergoing a thorough training abroad, took the place of the Germans and began to teach in Japanese. The terminology gradually developed and later on Japanese text-books began to appear, which are being used more extensively by the students, along with some German books. As this process of substitution of foreign by Japanese books developed at a number of different centres, great differences in medical terminology were found to exist. The unification and standardisation of the terminology was undertaken at a much later date and the process is continuously going on, even nearly 70 years after the introduction of the Japanese language. In China modern scientific medicine developed under different auspices and at different centres, and different languages were and are used in China though the official medium is Chinese. The most recent example where the difficulty of language and text-books had to be solved was in the case of Turkey which came under French influence towards the commencement of the last century and French became the language for higher education. At the commencement of the present century the young Turks and the later Government were very much influenced by the German political expansion towards the East and German language began to be largely used in the medical faculty of the Istanbul University. Until recently Turkey has employed a large number of distinguished Jewish professors who had been expelled from Germany by the Nazi Government. However, in 1935, all these profes-

sors were instructed that after three years the medium of instruction would become Turkish and all of them must learn the language to be able to use it after that period. These examples have been selected to illustrate the fact that there was a bilingual period in all these Universities and that an elaborate preparation of terminology and text-books was unnecessary before the introduction of a new language medium. Terminology and text-books followed as a natural sequence. It may be added that in small countries like Holland, Denmark, Sweden and Portugal, where the sale of books in their own language is very restricted and the cost of publication proportionately high, English, French and German books are used by students to a very great extent, in addition to the books in their own language which is the medium of instruction and examinations.

The second objection which may be advanced is regarding the refusal of recognition of the courses of instruction in the proposed centres by the Medical Council of India. It should be noted that the Council has not recommended any particular language as a medium of instruction. The desired conditions laid down by them enjoin amongst other things that the students joining Medical Colleges should have studied English upto the Intermediate standard. Under the reciprocity arrangement they also recognise the Japanese and Italian degrees without insisting on a knowledge of English. There is therefore no reason to believe that qualifications granted after completion of a carefully worked out programme of education would be barred on the ground that a provincial language has been used as the medium of instruction. The experience of the medical faculties of Vizagapatam and Patna shows that even with the use of English it took 10 to 15 years before the degrees granted by these Universities were recognised by the Council. During this period they were recognised by the provincial Councils and Governments. It need not be pointed out that provincial recognition is far more important to a vast majority of practitioners than non-provincial or a foreign recognition. However, Osmania undergraduates are now allowed to appear for the Primary Fellowship examination held in India and the Bombay Provincial Council registers their graduates. It is likely that further recognition by other provincial and foreign councils would follow in course of time.

A fear is often expressed that the standard of medical education would show evidence of deterioration with change of language in which the instruction is imparted. It is the opinion of experienced teachers that with the exercise of proper care in the planning of the curriculum, in the appointment of suitable teachers and examiners the standard should show a definite amelioration instead of a deterioration. The first teachers should have real faith in and enthusiasm for the innovation, in addition to being experts in their subjects.

The following scheme is, therefore, tentatively suggested. A two years' college course after the

matriculation examination should be carried out in a separate preparatory (premedical) institution or college attached to the medical schools. This preparatory college is expected to be almost self-supporting and will not be a financial burden to the medical college, as it should be possible to employ lecturers from the staff of the existing arts and science colleges and also from the medical college on a part-time basis. A curriculum best suited as a preliminary to the medical course should be drawn up, including English as one of the subjects to be taught in those two years. Such a course would be designed to continue the education received by the students upto the Matriculation Examination in a provincial language, which is now permitted by many Universities or Boards in India and at the same time prepare them in the essentials of the basic subjects necessary for the medical studies. It is suggested that two independent bodies may be created by an Executive order of Government, preliminary to the passage of an Act through its different stages in the local legislature, making them responsible for the management of the two medical schools or colleges in the province and the organization of the medical education in the language of the corresponding area. They may be called The Gujarat Academy and The Maharashtra Academy of Medical Sciences. In course of time they may develop into full medical universities having more than one faculty and they will then control education in different branches of medical practice (e.g. medicine, dentistry, pharmacy, veterinary medicine, etc.). This idea of a medical academy is not new. Dusseldorf has such a medical academy for granting medical degrees only, and Cologne was originally one such academy before it developed into a full University. Many universities in India do not possess all faculties, some have only two viz., Arts and Science. The Indian Institute of Science at Bangalore possessing a constitution similar to some of the Indian Universities has been founded only for the purpose of promoting education and research in chemistry and electrical technology and grants its own diplomas in those subjects. However, there should be a provision in the Act allowing these academies to merge themselves into full Universities whenever they will be established or to federate with similar academies dealing with other branches of knowledge. The object of these academies shall be unification and organisation of the medical profession with a view to promote and conduct medical education and research. The chief means of carrying out this object shall be by establishing a medical college in association with one or more hospitals situated in the respective linguistic area. The constitution of the academy shall be partly on the lines of the learned societies but mainly on those of the teaching universities in the United Kingdom, the only difference being in the closer association with the Government and the Municipal hospitals,

as well as the voluntary hospitals and infirmaries and a greater mobilisation of all available facilities for the training of students. It is not proposed to discuss the details but it may be added that it would be advisable to build up the constitution of these bodies from below upwards. The Boards of studies and the teaching Departments would form the units which would be coordinated in a central administrative body rather than that an assembly of persons like the Senate of a University should split itself into smaller bodies leaving the direction of medical studies to persons, not associated with educational institutions who may be swayed by fleeting ideas in vogue at any particular time. It is our opinion that the units should federate to form a corporate body, the Academy, on which the Government, the donors, the patrons and the medical graduates would be represented. The scheme may be summarised as under

It is proposed that the two Government Medical Schools should be converted into medical colleges teaching through the principal language of the region. There may be a transitional bilingual period during which English text-books and to a certain extent international European terminology will be used. The control and conduct of education shall be vested in bodies called The Gujarat and the Maharashtra Academy of Medical Sciences. These bodies will be medical teaching Universities. The staff shall be carefully selected with a view to make the scheme a success. The Heads of the departments, Professors, Readers, Lecturers, etc., shall be appointed not as members of a service cadre but on "chair basis" similar to the appointments recently announced for the New Deccan College. These shall be University or Academy "chairs." The occupants of the chairs of clinical subjects shall be ex-officio members of the staff of the associated hospital departments. The departments of the college and the boards of studies shall be the units, which together with certain other representatives shall constitute the Academy. The course leading to graduation shall cover seven years of which two years will be devoted to general preparatory education corresponding to the Intermediate Science examination and will be spent at a special preparatory college attached to the Medical College. The next two years will be devoted to preclinical subjects like (1) Anatomy, Embryology, Histology (2) Physiology (3) Biochemistry etc., and the last three years to clinical and applied laboratory subjects according to the plan and the standards laid down by the Medical Council of India.

Vanaspati vs. Ghee

• Dr. Kunj Behari Lal Varma, L. M. P.,
Meerut, Provincial Secretary, U. P., All-
India Medical Licentiates' Association

GHEE is one of the chief and nourishing article of dietary of the people in northern India from the highest to the lowest. As we all know, it is the fat extracted from the milk of the cow or she-buffalo through a particular process: heating milk on slow fire for about two hours so that cream may float over the milk in layers, then curdling the milk, after that churning the curd with the addition of warm or cold water according to the season, thus separating out the fat in the form of butter which is known as *LAUNI* and leaving the curd which is known as *Mattha*, a refreshing beverage also utilised as an article of dietary. This *LAUNI* is heated on slow fire in order to remove the drops of mixed water and *Chach*. The melted fatty liquid is filtered through muslin cloth and it is known as GHEE and the residue of the launi is known as *CHAI*, which since it contains only particles of curd and water settling down at the bottom of the heating pot, is rejected.

It is only the fat of the milk of the cow or she-buffalo obtained through the above process which is known as GHEE. There are no kinds or classes of GHEE and it is nothing but fraudulent and calculated to deceive the general public to make, sell and call any other fatty substances or oil as *VEGETABLE GHEE*.

A few years ago some oil hardened like ghee and bearing its appearance was first imported from foreign countries in India and in our Province. This stuff being cheaper than ghee and having proved a successful fraudulent substitute, as also its adulterant, the capitalist class of our country like European capitalists grew anxious to profit themselves. They imported machinery for hardening oil to give it the appearance of ghee and put it in the market under the misleading but well-designed name of *VANASPATI GHEE* or *VANASPATI*. Vanaspati literally means a vegetable and medicinal herb useful to relieve our ailments and strengthen our bodies. A vegetable or Vanaspati is not fat at all and it cannot be made to give a substance like ghee, and neither can it act as a substitute of ghee. This adulterant stuff paraded under the name of *VANASPATI GHEE* is a vegetable oil extracted from various oil-seeds and hardened under a chemical process, called hydrogenation, by introducing hydrogen gas into the oil. In Europe whale-fish oil is the chief one used in the manufacture of the hardened substance like ghee. Linseed oil is also hardened in Europe.

Ghee contains the largest amount of vitamin A. This vitamin is an essential factor to promote growth, to prevent rickets in young children and to maintain health in adults. It may be pointed

out that absence or insufficiency of vitamin A leads to many eye-disease also.

McCollum of John Hopkins University in the United States of America, and McCarrison, one-time Director of the National Research Institute, Coonoor (India) have independently and as a result of experiments come to the conclusion that insufficiency of vitamin A not only prevents growth but also causes serious eye-troubles which if not corrected in time will end in night blindness and even total blindness, and general debility. The work of Goldberger of U. S. Public Health Service has clearly demonstrated that pellagra, one of the symptoms of which is a skin eruption, is due to insufficiency or absence of vitamin A along with other B complex vitamins. The old Ayurvedic work of Sushruta states regarding ghee: "It improves eye-sight and possesses excellent tonic and invigorating properties." Xerophthalmia, a severe disease of the eye, has also been attributed to lack of this factor.

The lack of vitamin A further makes the body a prey to infectious diseases. Ghee, like milk, contains two more vitamins, named 'D' and 'E.' It has been proved that the normal process of bone formation demands a certain concentration of calcium and phosphates in the blood and that one important factor in maintaining these concentrations is an adequate supply of Vitamin D. The deficiency of vitamin E has been shown to cause many diseases like sterility, embryonic death, muscular dystrophy and paralysis in young. The different green vegetables contain different proportions of one or more vitamins and thus they are recommended by the doctors to be taken in large quantities. Cows' milk is the only food which contains almost all the essential vitamins, necessary for growth and health, and that is why it is considered as the best and the most important article of our dietary. Ghee, an extract of the milk, has the same value, though in a lesser degree than the latter. The hardened fats of animals, or those prepared from vegetable oils, like *Vanaspati ghee*, do not contain any vitamins, the most important ingredients for nutrition and health. The total absence of the vitamins from *Vanaspati ghee* can well be imagined to cause disaster to the health of the people using it.

NATURE OF VANASPATI

Oil obtained from any kind of oil-seeds or from tissues of animals killed or dead, is the principle source from which is derived the so-called *VANASPATI GHEE* or *VANASPATI*. The oil is first heated to a high temperature and in presence of some metal like nickel, hydrogen gas is passed through it which combines with the oil and removes its smell and hardens it. Thus a bland solid oil without taste or smell having the resemblance of ghee is produced. Dyes and artificial scents are further added to give it the appearance and flavour of ghee as naturally extracted from the milk of a cow or she-buffalo according to different seasons of the year i.e., white of a she-buffalo, slightly yellowish of a cow, slightly greenish as

obtained from milk in the rainy season on account of green fodder on which the milching cattle feed. From this it is clear that the object is nothing but to place in the market an edible stuff resembling ghee in appearance, consistence, flavour and taste, but which is devoid of all the nutritional value of ghee or even of oils extracted from oil-seeds. The milk and ghee of a cow contain more vitamins than those of a she-buffalo, hence the former is comparatively more beneficial to health than those of the latter. Hydrogen gas, the lightest gas which is filled in Japan-made toy balloons of children sold in the market for a pice or two, is the principal stuff which solidifies the oil to the consistence of ghee. This gas combines with the oil in the presence of some catalytic agent like nickel, a cheap metal of which one-anna and two-anna current coins are made. Thus the artificial stuff is prepared in the presence of a metal which is likely to prove injurious to health. The use of this stuff as an edible article in place of ghee or oil must therefore result in malnutrition and deficiency diseases.

The oil which is purchased by the vanaspati manufacturer at Rs. 8 to Rs. 10 per maund is sold out by him after being chemically treated and its physical appearance changed to resemble ghee, to selling agents and purchasers at Rs. 16 to Rs. 20 per maund i. e., to nearly double the price. Halwais, sweetmeat-makers and confectioners prepare all food stuffs and sweets with this vanaspati instead of with ghee. The cheapness works as a stimulus to use vanaspati in place of ghee. The selling price of ghee is 14 chataks to a seer for a rupee. In this way the consumer gets about four annas worth of stuff in place of a rupee from the sweetmeat-makers using vanaspati which they spend for confections and other eatables made by them: about 50% profit thus goes to the vanaspati-manufacturer and 25% to the confectioner.

As ghee is the principal basic article for cooking all foods, sweets and vegetables for domestic use and is the most nourishing article of dietary, it has become too difficult to purchase pure ghee in the market on account of the adulteration that is facilitated owing to the similarity of appearance of vanaspati with pure ghee. Adulteration is done by the ghee-vendors and now even by villagers themselves. The villager adulterates it by a subtle process. He purchases vanaspathi from

vanaspati stores in towns and takes it to his village. At the time of curdling the milk after heating, Vanaspati is added to the milk which is intermixed with the curd. Next morning the curd with the vanaspati is churned and the product is a mixture of ghee and vanaspati. This adulterated stuff is sold in the market as pure ghee.

VANASPATI INDUSTRY A PUBLIC HEALTH

It is a serious question which must engage prompt attention of all patriotic and public-spirited citizens, public associations, the Government and the Ministry of Health. It is painful to see that a misdirected oil industry and trade is fast developing and spreading in our province with the only object of profit. It is bound to affect the health of our people ultimately. It is however encouraging to see Jaipur State prohibiting entry of vanaspati with the proviso that an infringement thereof is punishable with six months' imprisonment. But in U. P. we have a vanaspati factory at Cawnpore and another has recently been started in Meerut district.

The only remedy in public interest is, therefore, to put a stop to vanaspati-manufacture and its import in U. P., unless it is held out and justified by its supporters and exponents that Vanaspati is meant for some other industrial purpose and not as an article of dietary nor as a substitute of ghee. In that case it should be coloured deep or made unfit for human consumption. It is confidently hoped that our Ministry of Health will no longer delay in the matter of considering the damage which is being done to public health and to public morale by a wide-spread adulteration developing by this specious stuff being in the market. While our Ministry has launched upon a scheme of rural development for the welfare of the villager and has ordered total prohibition of wine and other intoxicants in some districts of U. P. in the interest of public health and well-being, in the same way manufacture and import of vanaspati in U. P. need immediate control, being a much greater menace as it affects the health of every villager and citizen from the highest to the lowest. It is also hoped that educated public opinion will gather momentum and express its disapproval of the continuance of vanaspathi industry and trade in our Province. Only then shall we be able to save our health from ruin.

PRIZE THESES FOR 1939

1. Dr. Joseph Benjamin Prize: Value Rs. 35. Post-Partum Hemorrhage—its causes, signs, symptoms, prevention and treatment.
 2. Dr. P. S. Ramchandrier's Prize: Value Rs. 25. Otitis Media—its causes, signs and symptoms, diagnosis and treatment.
- All bonafide members of the A. I. M. L. A. are eligible to compete. The competitors are requested to write their theses from a practical point of view and in the style of a lecture. The theses should reach Dr. Jamiat Ram Desai, 52, Pritam Nagar, Ahmedabad on or before 28th Feb. 1940.

K. J. BHAT
Secretary, Gujrat Branch,
A. I. M. L. A., Ahmedabad.

Promotion of Sub-Assistant Surgeons in the Punjab

The following is a compendious extract of a memorandum submitted recently by the Punjab Branch of the All-India Medical Licentiate's Association to the Inspector-General of Hospitals of that province.

The question at issue is this. The Punjab Medical Manual, in para 252, lays down that the Sub-Assistant Surgeons with exceptional attainments may be promoted to Provincial Medical Service provided they possess the M. S. M. F. diploma, although in the latter part of the Rule it is definitely mentioned that the Membership of the Faculty will not by itself entitle them to promotion. If the Government wants to observe this Rule, they have to find out, for the purpose of promotion, such sub-assistant surgeons who have shown exceptional abilities in the exercise of their profession and who should at the same time have acquired or be helped to acquire the Membership of the Faculty. The deputations complain that the first part of the Rule is given the go-by while the second part is rather too strictly observed to the detriment of the ultimate purpose of the Rule and in breach of the provision mentioned in the Rule itself, namely, that higher qualification by itself shall not entitle one to promotion. The Punjab Sub-Assistant Surgeons merely urge themselves for higher diplomas instead of solely confining the promotion to those who have the M. S. M. F. diploma without any record of brilliant service. None can say that this is an extravagant demand, nor is it against the rules in force.

Judging the question on its merits, we are rather inclined to think that it is no "promotion" in the accepted and usual meaning of this word, to absorb S. A. Ss. with higher qualification into the Provincial Medical Service, because they have already earned that right by virtue of having acquired the necessary qualification. The need to "promote" Sub-Assistant Surgeons with a higher medical qualification to the Provincial Service is a question of right while the demand to promote Sub-Assistant Surgeons with exceptional record of service is a question of privilege which should under no circumstances be curtailed or modified if the Punjab Government means to stand by the Subordinate Medical Service which has been authoritatively credited as always rendering unostentatious service to the people as well as the Government. We hope that it will render unto Caesar what is Caesar's and prevent the sabotage of legitimate ambitions of a deserving class of Government servants by vested interests. The stifling of such a natural desire for promotion will leave behind it a corroding bitterness of heart among a class of public servants who have left many an indelible footprint in the path of time.

Ed., I. M. J.

We have learnt with great regret that three posts sanctioned by Government for Sub-Assistant Surgeons in the P. C. M. S. cadre have already been filled up by Sub-Assistant Surgeons possessing foreign and university qualifications, and that the requests of a most useful, loyal and hard-working body of Government servants have not been given the attention they deserved and the rules enforced by the Government on this point have not only been not followed but interpreted differently to fill up vacancies on different occasions as if the sub-assistant surgeons are underserving non-entities in Government Service.

Sir, the implications of the present decision of the Government are:

1. That the man senior to the selected candidates did not fulfil conditions laid down in para 252 of the Punjab Medical Manual.
2. That the selected candidates fulfilled all the conditions laid down in the same para.

The necessary conditions and qualifications required for such promotion as enumerated in para 252 of the Punjab Medical Manual are:—

- A. Sub-Assistant Surgeons who in the exercise of their profession, have shown themselves to be possessed of very exceptional attainments are promoted to the rank of Assistant Surgeons.
- B. They are required, if they have not already done so, to take the Membership of the Punjab State Medical Faculty before they can be appointed to the rank of assistant surgeon, and can under no circumstances be appointed unless they fulfilled this condition. The possession of the Membership of the Faculty by a Sub-Assistant Surgeon is however not in itself a qualification for advancement, and will not entitle him to promotion.

1. That the men senior to the selected candidates did not fulfil conditions laid down in para 252 of the Punjab Medical Manual is not borne out by facts.

From the perusal of annual reports of Hospitals and Dispensaries of the Punjab Province of the last seven or eight years it is clear as day light that

there are men in the cadre of Sub-Assistant Surgeons senior to men now selected, who fulfil conditions laid down in Clause A of para 252 of the Punjab Medical Manual and the authorities will bear us out that in the presence of these men who are ready to take the membership of the Punjab State Medical Faculty, any other selection cannot be considered as justifiable and within the rules.

2. *That the selected candidates have not fulfilled all the conditions laid down in para 252 of the Punjab Medical Manual can be borne out by facts.*

There is absolutely no record which shows that the selected candidates, in the exercise of their profession, have shown themselves to be possessed of very exceptional attainments excepting that they have acquired the M. S. M. F. diploma.

Sir, there are more than a dozen candidates senior to those now selected for promotion to the P.C.M.S. cadre, having requisite qualification under clause A of para 252 of the Punjab Medical Manual. Similarly there are best physicians in the cadre of Sub-Assistant Surgeons, who being senior to those now selected fulfil conditions under clause A of the same para, and are ready to avail if required to fulfil conditions laid down under clause B of para 252. There is therefore no justification why these men should be superseded by juniors having nothing but foreign or university qualifications to their credit.

Owing to the unfortunate death of Dr. Amarnath Chopra (late Assistant Surgeon, Nurpur,) another vacancy has occurred in the P.C.M.S. cadre, to be filled up by a sub-assistant surgeon and we pray that all the four seats should be filled up as per clause A of 252 Punjab Medical Manual. We would beg of you to realise the intrinsic justness of our claims and render us our dues in the same manner and in the same terms as Government deals with other departments in relation to the question of promotion. If higher degrees are not necessary for the promotion of Assistant Surgeon to Civil Surgeon, if a Tahsildar can become Deputy Commissioner, nay even as Commissioner without any extra qualification save the departmental tests, if a Sub-Inspector of Police can become a Superintendent of Police without any high general or special qualification; if, thus, meritorious services alone are taken as a criterion of promotion in these cases, we ask you, Sir, in all humility, why a similar criterion should not be applied to in the case of the subordinate medical officer?

If in any way our prayers in this respect cannot be granted, the rule in force should be followed in letter and spirit and those fulfilling conditions under clause A of para 252 of Punjab Medical Manual may be directed to undergo training required under clause B of the same para.

Sir, the position is this. Under the Present rules the case of sub-assistant surgeons with meritorious services can only be considered for promotion to the rank of P.C.M.S., and if they are not in possession of M.S.M.F. they should be required to undergo the course and the period for such training be considered

as on duty. But to simplify matters the authorities are absolutely treating clause A of para 252 of the Punjab Medical Manual as a dead letter and the selection is made only out of Sub-Assistant Surgeons possessing M.S.M.F. higher or Indian University qualifications.

We submit that the present procedure is against the spirit of the rules in question, and we hope that you will do us bare justice in the matter.

LETTERS TO THE EDITOR

An appeal to the members of the All-India Medical Licentiate's Association Family Fund

Our fund was started at Indore in 1911. The object was to render mutual help to the family of a deceased member. It was only registered in the year 1926 under Provident Societies Act of 1912. Each member had to pay a death call of rupee one on the death of a member. Out of the money so collected 1.10 was added to the Fund and the remaining 9.10 was paid to the family of the deceased member. At one time the membership was 800. Gradually however it decreased and at present the members on the roll are 317 only. During the last 28 years the existing 317 members paid about Rs. 4200 to the families of the deceased members. At present the Fund has Rs. 14783.15-1 as balance on hand.

Assurances, by certain Bombay members, of increasing the Fund-membership were given should the Fund be transferred to Bombay. The Registrar suddenly insisted that the Fund office should be in Bombay Presidency only although, till then, the office was at Indore without any protest from the Registrar to my knowledge. The Fund was therefore transferred to Bombay only a year ago. Members of our Fund in Bombay and its suburbs are very few, now nine in all including the two or three who only recently joined the Fund.

The following members in Bombay form the Working Committee:

1. Dr. U. B. Narayana Rao (Secretary)—a member of 4 years' standing.
2. Dr. A. D. Mastakar (Treasurer)—a member of only one year standing, joined at the end of 1937-1938.
3. Dr. U. Sesharao (Joint Secretary & Member)—joined on 25-5-1939, a few months ago, and gained secretaryship even before joining the Fund.
4. Dr. A. G. Shah (Manager)—Member of 23 years' standing.
5. Dr. G. G. Wadhvani (Director)—Member of 5 years' standing.

The New Insurance Act of 1939 came in force from 1st July. By virtue of this Act, Funds like ours cannot function. Hence our Fund is not allowed to work now. It appears that our Bombay friends have not informed this to our members by a circular through the medium of our official organ, the Indian Medical Journal. We are therefore completely in the dark and it is found that a majority comprising of three members in all of the Working Committee of Bombay intend to get our Fund transformed into an Insurance company, even though two members of the same Committee who are also directors are against the Insurance scheme.

They have already prepared a scheme of Insurance with the help of an Actuary. This scheme overlaps

the rights of the existing members. It appears also that they have sought the sanction from Insurance Superintendent, Simla, for their scheme. The Indore Directors of the Fund having come to know of this, sent protest letters and also telegrams, but so far with no effect.

In spite of the opposition from Bombay Samachar and Sangartmana, from the Indore Directors and Members and also from the Bombay Directors of the Fund attempts are still being made to convert the Fund into an insurance business. Hence the Indore Directors and Members have presented a petition to the Insurance Superintendent not to sanction the suggested scheme of insurance and not to allow the present Working Committee of the Fund to convert it into an Insurance Company, at the cost of its reserve of Rs. 14000; and also requested to transfer the Fund to Indore and safeguard the interest of the existing 317 members, because the Holkar Government allows such Funds to work on its original creed of giving death calls, and also because the majority of our members still want to continue the Fund in its original creed without minding whether the Fund would pay us little or more, thus preserving the philanthropic idea of mutual help.

The main features of the suggested Insurance Scheme are as follows:

Out of the 317 surviving members, 100 members are between the ages from 50 to 81 and have paid calls for more than 25 years. Hence they shall not have to pay any more but will get a policy of Rs. 92 to 150 according to their ages payable at death even though they might have already paid Rs. 200 for calls. Those aged 50 will get a policy of Rs. 150, and those aged 81 will get a policy of Rs. 92 payable at death. The remaining 217 members will have to pay Rs. 6 as premium for 25 years and will be given a policy of Rs. 150 payable at death. No mention is made of surrender value, bonus, etc. New members can be entered on a policy of Rs. 250 payable at death by paying premiums of Rs. 15 per annum according to age. The New Law about Rs. 15 per annum according to age. The New Law of Provident Insurance does not allow a policy of more than Rs. 500/-.

From the above it may be easily understood that no new member is likely to take policy for Rs. 260. Thus there would be no new income; and from the existing members whatever amount of premiums is received will be absorbed in the heavy running expenditure of the management. Sooner or later it may bring liquidation—this is detrimental to the existing members. Preparation of such a scheme without the consent and knowledge of the present members is highly objectionable.

From the above facts it is quite obvious that the protests from Indore people is quite justified though whether transfer to Indore is permissible under law is a question. But we all should send our individual protest at once to Bombay friends not to foist an Insurance scheme on us. As the Fund is stopped working by Government it should be wound up—we should at once send votes for voluntary winding and to divide the assets on equitable basis in proportion to the call moneys paid as per rule and regulation 36 of our Family Fund and as provided in Schedule VII of the Company's Act of 1918.

I warn all of you not to delay and not to sleep over all that is going on but send your written vote in favour of winding the Fund and against its transfer into any Insurance scheme, to the undersigned at the address given below.

A. G. SHAH

A Member of the family fund for the last 23 years.
Ghatkopar (G. I. P. Ry.) Bombay.

SERVICE NOTES

[As per Resolution No. 18 of Gauhati Conference, A. I. M. L. A., we are publishing below only the transfer and leave of such of the Sub-Assistant Surgeons in each province who are members of the Association. The numbers given against their names indicate their membership roll numbers—Ed. I. M. J.]

Punjab—August 1939

- 1156 First Class Senior Dr. Arjan Singh, Ahmadpur Dispy., Jhang Dist. to Sohawa Dispy., Jhelum Dist.
- 689 Dr. Hari Singh Mahindra, General duty, Civil Hospital, Rohtak to Pinagwan Dispy., Gurgaon Dist.
- 1805 First class senior Dr. Hira Nand, granted 8 months' leave on medical certificate.
- 2824 " Ghulam Hussain Khan, granted extension of 1 month's leave.
- 2446 " Murari Lal Malhan, on return from leave to Ladwa Dispy., Karnal Dt.
- 2591 " Nur Ahmad, Ladwa Dispy., Karnal Dist. to Hodal Dispy., Gurgaon Dist.
- 1906 " Abdul Aziz, Alirabad Dispy., Lahore Dist. to Jail Hospital, Ferozepore.
- 1597 " Beant Singh, on return from leave to Kot Pindi Das Dispensary, Sheikhpura Dist.

Bengal—15th July to 14th August, 1939

- 2569 Dr. Adhir Chanda Ganguly, Travelling S. A. S. Terai Siliguri, Darjeeling, held charge of the Khoribari Dispy. from 14-8-39 to 10-9-39.
- 2012 " Satindra Mohan Ghosh II, Police Hospital, Suri, Birbhum, did the duties of S. A. S. Sadar Hospital in addition to his own for the period from 3rd to 20th June 1939 both days inclusive.
- 462 " Roma Prasanna Roy, Teacher of Physiology and Pathology, Ronaldshay Medical School, Burdwan, held charge of the Asansol Sub-dvn. and dispy. on 11-7-39.
- 1791 " Jaladhar Sen Gupta, R. M. O., Campbell Hospital, Calcutta, to Demonstrator of Pathology, Ronaldshay Medical School, Burdwan.
- 1892 " Joyanta Kumar Bose, Jail & Police Hospital, Pabna, held charge of the Serajganj Subdvn. and dispy. on 11-7-39.
- 3553 " Md. Arfan Ali, held charge of the Kishoreganj Subdvn. and dispy., Dist. Mymensingh on 4th July 1939.
- 3553 " do. held charge of the Jamalpur Subdvn. and dispy., Dist. Mymensingh on 30-6-39.
- 2036 " Kali Prasanna Sen, Medical Officer, Govt. of India Press Dispy., Calcutta, to leave on average pay for 4 months.
- 2569 " Adhir Chandra Ganguly, Travelling S. A. S., Terai Siliguri, Darjeeling, leave on average pay for 3 months.
- 1352 " Bhuban Mohan Sen Gupta, Demonstrator of Anatomy, Ronaldshay Medical School, Burdwan, held charge of the Kalna Subdvn. on 11-7-39.
- 3056 " Dabesh Charan Das Gupta, General Hospital, Chittagong, held charge of the Cox Bazar Subdvn. and dispy., from 10th to 16th July 1939.
- 480 " Mano Mohan Sett, Police Hospital, Burdwan, leave on average pay for 3 months.

1. This meeting expresses its gratefulness to the Hon'ble Minister and His Excellency the Governor for having raised the curriculum of studies at the Agra Medical School to five years with Intermediate in Science as preliminary qualification and thus meeting the persistent demand of the U. P. licentiates and the All-India Medical Licentiates' Association. The meeting further most respectfully prays that in the interest of the profession and the public, special and liberal provision in the shape of post-graduate training should be made in the improved curriculum for the old students of the School.

2. That in order to help practising licentiates desirous of obtaining M. B., B. S. degree of the Lucknow University this meeting wholeheartedly supports the following scheme through the institution of a "Medical Practitioners Degree Examination" by the University as suggested in the memorandum of the U. P. Branch of the All-India Medical Licentiates' Association:

(a) Exemption from preliminary F. Sc., with biology.
(b) Licentiates under ten years' practice should receive two years' post-graduate training at the Lucknow Medical College before degree examination.
(c) Licentiates over ten years' practice should receive one year's post-graduate training.

(d) Licentiates over twenty years' practice should be required to submit a thesis which, if approved by the examiners, should qualify to confer the degree.

(3) In the interest of public health and welfare, members and branches of the Association should organise charitable clinics for educative propaganda against preventable diseases, and for their prevention and cure, such as infant welfare clinic, child welfare clinic, maternity welfare clinic, anti-venereal clinic, anti-malaria clinic, blind relief camps, etc.

(4) In the larger interests of the medical profession in India, it is high time that the scope of membership of the A. I. M. L. A. is extended to all qualified medical men and its name changed to All-India Medical Association.

(5) Resolved that the attention of the U. P. Government be invited to the injurious effects of Vanaspathi ghee on the health of the consumers and that the Government be requested to put a stop to Vanaspathi manufacture and trade in U. P.

6. Resolved that a sub-committee consisting of doctors M. L. Sharma, K. B. L. Varma and Prem Sagar be formed to collect views regarding origin and causes of epidemics in U. P. and suggest measures for their eradication.

Proceedings of a meeting held on 21st August 1939. Dr. Diwan Singh was in chair. 8 members were present.

The proceedings of the last meeting were read and confirmed.

Provincial Secretary's circular No. 4 dated 21st August 1939 was read and members present expressed their personal experiences regarding origin and causes of epidemics in U. P. and suggested ways and means to prevent and combat them. The Provincial Secretary who was present in the meeting made a short note of all the suggestions.

The consideration of L. S. G. and Jail Committee reports was postponed to next meeting.

Benares: Proceedings of a meeting held on 8-9-39 with Capt. G. S. K. Havi, in the chair. 5 members were present. Proceedings of the last meeting were read and confirmed.

Resolved that this Branch protests against and resents the unjustifiable remarks of Dr. J. J. Cursetji against medical licentiates contained in the *Insurance World*, February 39, p. 265-67 and that Dr. Cursetji's opinions are not those of the organised profession, as will be evidenced from previous resolutions on this subject by both the A. I. M. L. Association and the Indian Medical Association.

Resolved that all the members be requested to advance their annual provincial contribution amounting to Rs. 4/- to the Treasurer, U.P. before the 15th of September 1939 as it will save the V. P. expenses, or remit it to the local secretary.

Resolved that the members be requested to meet the non-members in their jurisdiction and enlist them as members on Rs. 4/- only as they would be exempted from the payment of Rs. 2/- as admission fee during the Sarju Prasad Month.

Resolved that a special meeting of this Branch be called on 20th September 39 to protest against the Indian Medical Council Act.

Resolved that a sub-committee consisting of the following may be formed to draft the replies of the questionnaire sent by the Provincial Secretary regarding the epidemics. The sub-committee should meet on Monday the 11th September 1939.

24 Parganas: Proceedings of a monthly meeting held on 6-8-39. Dr. H. C. Pal was elected to the chair. 16 members were present.

The minutes of the last meeting held on 24-6-39 were read and confirmed.

Dr. A. D. Mukherji, President, Bengal Provincial Medical Licentiates' Association, spoke at length on the importance of membership of the Association and after his instructive speech, Drs. P. K. Das, K. K. Sen Gupta and R. N. Sen Gupta paid their subscriptions for the Association then and there, drawing the thanks and applause of the whole house. Dr. A. D. Mukherji wanted the Branch to organise a membership campaign, and his suggestions were unanimously approved.

In order to organise the Branch the house signified its intention to hold a social gathering early next month so that many local doctors might meet on that day and a scheme of upliftment of the licentiates be launched upon. Drs. K. K. Dutt, S. S. Sircar, and S. N. Dey were entrusted to do the needful. Dr. P. K. Das offered his residence for holding the social function, which the house thankfully accepted. It was proposed that the gathering be held on 3rd September 39 at 7-30 p. m.

Nadia: Proceedings of a meeting held on 9-8-39 with Dr. P. Pathak in the chair. 7 members were present.

Proceedings of the last meeting read and confirmed.

Considered circular No. 21 dated 6th July 1939 from G. S. and resolved that it would not be possible to hold the next annual conference at this place this year, as the Bengal Provincial Conference had been invited to be held here.

Considered the Memo No. 896/E dated 31-7-39 from the second Vice-Chairman, District Board, Nadia. The members of this Branch are extremely thankful to the Vice-Chairman for the action taken to appoint Dist. Board doctors as ex-officio members of the managing committee of the District Board aided schools.

Circular No. 24 dated 22nd July 1939 from G. S. read and noted. Monthly accounts for the month of July 1939 were examined and passed unanimously.

Scientific discussion on malaria were made by the members.

Meeting held on 10-9-39. Dr. P. Pathak was in the chair. 11 members were present.

Proceedings of the last meeting were read and confirmed.

Circular Nos. 27 to 32 from the G. S. were considered and suitably replied.

Scientific discussion on various medico-legal cases were made by the members present.

Dacca: Meeting held on 19th August 1939.

This meeting expressed its deep sense of sorrow at the sad and sudden death of Dr. B. K. Sen, late Secretary of the Branch, and sent its heart-felt condolence to the bereaved family. Further resolved that the copies of the resolution be sent to the press, *I.M.J.*, and his son.

Indore: Proceedings of a meeting held on 13-8-39 with Dr. N. A. Bande in the chair.

Minutes of the last meeting were read and confirmed.

It is proposed, for increasing our membership, that (a) medical students should be enlisted in greater number (b) the G. S. should be requested to give us a list of present members, (c) all local members should try to induce their friends to become members (d) Branch Secretary to see doctors outside, in Dewas, Dhar, etc.

Resolved that Dr. Fadnis will prepare a list of enquiry regarding the present condition of the Family Fund and present it to Dr. Sarangpani and Deshpande—our local directors—for enquiry from Bombay.

Dr. M. R. Fadnis showed the records of some cases of anaemia treated by him by raw liver in the central jail, Indore.

Dr. Sharangpani showed in the meeting his file of Family Fund letters up to date.

CURRENT COMMENTS

Examination of Gastric Contents For Tubercle Bacilli

There are certainly a number of tubercular patients who expectorate little or no sputum, particularly many children and some adults. Sputum examination in these cases is therefore not available. Continental clinics examine the gastric contents as a routine method of investigation for tubercle bacilli. Meunier in 1898 showed that tuberculous children often swallow sputum, and he demonstrated the tubercle bacilli in the washed out mucoid material of the stomach. Armand Delilli and Vibert reintroduced Meunier's technique in 1927. Kayne and Hounslow⁴ have recently analysed the gastric contents of 114 sanatorium patients and they found 57 positives. Their methods of examination are microscopic, cultural, and animal inoculation. They remove the contents of the fasting stomach early the morning and dilute the contents of the stomach with 6 to 8 ozs. of warmed sterile water and air. The contents are then aspirated, and the more viscid residual matter is sent to the laboratory for examination. They conclude that both cultural and animal inoculation methods should be adopted, and that although animal inoculation is more sensitive than culture, yet positive results are often obtained by culture alone.

This method of diagnosis is rarely practised in this country. There is no doubt of the advantages of this method. The diagnosis becomes definite, and it is easier to correctly become definite, and it is easier to correctly define what is usually called "open" and "closed" cases. We hope that this method would be given a fair trial in our country, particularly in institutions where laboratory facilities are available.

Plague in Calcutta

That plague is not entirely absent from Calcutta is borne out by the recent investigation of Raghavendra Rao of the All-India Institute of Hygiene and Public Health⁵. A single case occurring in a bustee near Upper Circular Road stimulated investigation which led to the conclusion that deaths from plague were not infrequent in that area, although none recognised them as due to this disease.

⁴ *Br. Med. Jour.*, June 10, 1939, p. 1170.

⁵ *Cal. Med. Jour.*, Aug. 1939, p. 89-105.

Rao's enquiries proved that the infection was of local origin. It was found that the flea and the climatic factors were favourable for the spread of plague. But the local rodents failed to reveal infection among them. He assumes the possibility of case to case infection and is unable at present to say definitely why it does not assume epidemic proportion. Neither is it known how the rodents or the humans maintain the infection. Rao urges investigation of these factors. Calcutta has had its share of pandemic plague between 1900 and 1917 when the mortality was four times that of cholera. Since then, the disease has been quiescent, but so long as there is even a few sporadic cases it is unsafe to leave the problem as unimportant. Rao's findings indicate the possible danger of epidemic plague at any unknown moment, which, if it affects a city like Calcutta, is bound to paralyse trade and normal avocations of the people. We daresay that Calcutta Corporation is aware of this danger and would initiate such investigations as would ultimately lead to its complete eradication from this great city of the East.

Topical Application of Vitamin A and D

It is very difficult to define what is a vitamin. The best we can say about it is that it is a definite organic chemical substance with widely different structures and physiological actions, available in nature only in minute quantities, indispensable to normal nutrition but by itself contributing no energy or body-building material to the body. Like the hormones, they seem to be interdependent to produce a balance of normal physiological functions but the exact inter-relationship is not yet known. Thus vitamin D will not support the growth of epithelial cells in the absence of vitamin A. Absence or deficiency of vitamin B complex produces the well-known skin changes of pellagra, and vitamin C of purpura. Mc Laughlin⁶ utilises an ointment made of vitamins A and D in the treatment of non-specific skin diseases and claims fairly successful results. Daily applications of small quantities are sufficient to produce clinical effects within a few days or weeks and he observed no ill-effects from the topical application of vitamin A and D in large doses or over prolonged periods of time. He has used this ointment for various types of dermatitis, senile wrinkling of the skin, eczema, acne and similar lesions. He believes that the vitamin ointment produces a favourable local and constitutional effects. It is well-known that many skin lesions are intractable and

⁶ *Medical Times*, July 1939, p. 303.

have so far resisted the usual antiseptic ointments. The vitamin ointment seems therefore worthy of trial if only a reliable preparation can be made and obtained in our country.

Paucity of Nurses

The need for a greater number of nurses for nursing service within the hospital and outside has never been felt so acutely as now. It is becoming extremely difficult to adjust the demands between hospital and war needs. Our country had at no time sufficient nursing strength even to meet the civil needs. The total nursing population in India is somewhere about 10,000, while the total number of Government and municipal hospitals are over 6200. The deficiency is obvious, not to say of surplus needed for the war emergencies of the kind we are facing to-day. At one time it was thought that this paucity was due to the unwillingness of our Indian girls to take to nursing. That is not true to-day. A large number of educated unemployed girls is now available, but training centres are insufficient and the scope for paid service is limited by the parsimony of the provincial governments and local bodies. We wish the authorities take up this matter and see that more nurses are trained to meet at least the hospital needs. The Government may not like to hear a sermon from us on this subject because of its financial tightness. But there is no doubt of the fact that this paucity of nurses is felt badly by even major hospitals in this country, and earlier relief is essential in the interest of the sick. Unless within the next ten years we have at least a lakh of nurses India will suffer from this neglect and want.

The Yellow Fever Peril

Col. Russell, the Public Health Commissioner with the Government of India, has been writing and talking on this subject for the last five years and he has taken the necessary precautions at the air ports of India against the spread of yellow fever through aerial communications. This foresight is indeed commendable, although, so far, this dreaded disease has not yet been introduced in our country. But the vector mosquito, *stegomyia fasciata*, is ubiquitous in our land, and given the spark of infection, it is bound to spread like wild-fire. Herein lies the danger of infection and the necessity for vigilance at the air ports. Aerial traffic has placed our country within easy reach of Western and Central Africa, notorious regions of yellow fever, in 24-36 hours. Infected mosquitoes or infected persons apparently healthy may at any time reach India and start

POST GRADUATE ARTICLE

Pulmonary Tuberculosis

● Dr. Samuel Ram Singh, M. S. M. F. (Punj.), L. C. P. S. (Bom.), D. T. M. (Cal.), Wellington Hospital, New Delhi (4)

Prognosis and Treatment

Lancet was the first to make a scientific study of the pathology of this disease, and introduced methods of physical diagnosis, but he pronounced the disease as incurable. He said: "Cure of phthisis is not beyond the power of Nature, but it must be admitted at the same time that art possesses no certain means of advancing this end". Even before the advent of bacteriology and x-ray it was however believed by the physicians that tuberculosis lesions in the lungs healed by cicatrization, calcification and even absorption of morbid material. Physicians in the nineteenth century maintained that tuberculosis was not invariably fatal. Today x-ray enables us to follow the disease in all stages—incipiency, exudation, caseation, liquefaction and cavitation—by serial pictures. It is a daily experience of the modern physicians that tuberculous lesions heal leaving slight or no traces in the lung. Even cavities are reported to have healed favourably. The present opinion seems to be that pulmonary tuberculosis is curable in its early stages, and advancing lesions can be controlled by surgical methods.

a new epidemic in this land of many old epidemics. The preventive measures at present adopted by the Government of India are: prohibition of entry into our country of persons coming from an infected places unless inoculated against the disease already, segregation of infected or suspected persons arriving by air in mosquito-proofed isolation hospital, keeping down the mosquito-population in the air-port area, and disinsection of all air crafts coming from suspected or infected areas. But the change from land planes to sea planes has rendered the control of aerodromes more difficult. To this is added the indefinite routes which private planes often take and the consequent danger of their crossing and recrossing infected areas without the cognizance of any health authority. But the Central Public Health Department of the Government of India is fully aware of these difficulties and dangers, and is keeping incessant watch at all air-ports. Its vigilance is India's guarantee against the introduction of yellow fever in India.

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Calcium Lactate	3.5 Grs.
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Vitamin D	100.0 Units.

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Horlicks—full cream cows' milk combined with the nutritive extracts of malted barley and wheat—provides the patient with first class protein and the easily digested and rapidly assimilated protein-sparers, lactose, maltose and dextrin. Fifteen per cent of the caloric value of Horlicks is derived from protein, much of it in a form ready for direct assimilation.

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Essential considerations in the treatment are:

- (1) What are the chances of recovery of the health of the patient?
- (2) Outlook for recovery being good how long will he take to recover?
- (3) The influence of the complicating processes on the treatment and how to avoid them?

Prognosis in tuberculosis is always difficult and often disappointing. In spite of even a dark outlook at times there always are simple and definite indications for the treatment of the disease. Before attempting to discuss the treatment, either curative or preventive, it is necessary to bear in mind certain important facts about the disease.

(1) Tuberculosis is a communicable and chronic disease but is complex compared with other communicable disease. Many individuals live for 10, 20, 40, or 50 years constantly discharging the causative organisms in their sputum and throwing them out from time to time.

(2) The causative organism is definitely known. Its propagation from person to person is mainly through sputum and nearly the entire human race particularly the civilised population of the world is infected with the organism.

(3) A large number of those infected never become ill so long as they live under favourable conditions.

(4) Practically every individual possesses relative immunity against the disease and this protective quality prevents exogenous re-infection and limits the endogenous infection.

(5) When first diagnosed 20-45% of cases are already open and advanced.

The treatment is based on two vital considerations. The first aim is to destroy the causative organism, the seed, and the second is to render the soil unsuitable for the seed by increasing the resistance of the individual. We have no specific against tuberculosis as quinine for malaria or arsenic for syphilis. Sera and vaccines have not proved their value. Attempts at passive and active immunisation have not succeeded. The organism does not grow with equal facility in every individual. Everything that undermines the general health of a person and reduces his vitality prepares a favourable soil for growth of the organism and anything that stimulates the vital defensive forces which are more or less inherent in every individual or which improves the nutrition of the body will hinder the growth of the organism. So with the improvement of the general health of the patient the local lesion may heal or dissemination of the organism be prevented. The disease has many phases and treatment good at one phase may be harmful at another. During the acute stage the disease must be checked by absolute rest or artificial pneumothorax. When acute stage is passed the physician should aim at restoring the patient to his normal as far as possible and having attained maximum standard of fitness regulate his life so that he may live and work within the limits of his defective capacity. During all stages of the disease treatment of

symptoms and complications and careful attention to general health are of immense importance.

(1) *The latent stage*: There is an alarm created by the history and symptoms, but no definite signs are discoverable. The case should be kept under strict medical supervision. Change of climate or sojourn to a sanatorium may prevent the onset of the disease.

(2) *Attack or early progressive stage*: This is a very important period of the disease. Chances of recovery are very great by thorough treatment. Absolute rest, artificial pneumothorax, gold therapy, and other measures are to be judiciously employed according to the spread of the disease and progression of symptoms. Rest may have to be of two or three months' duration at least.

(3) *Late progressive stage*: Body is on defensive side and cure is unlikely. To check the spread of the disease the measures employed are rather drastic. Rest and exercise require control. Drastic surgical measures have often to be resorted to, as phrenic evulsion or thoracoplasty.

(4) *Chronic fibroid stage*: The disease is inactive. Lungs are definitely damaged. Proper management of the case prolongs life and chances of an acute exacerbations are lessened. Special symptoms as pyrexia or hæmoptysis require active treatment.

From the above it is clear that unity of origin does not imply unity of effects in tuberculosis. Mycobacterium tuberculosis produces different lesions in different individuals. As regards anatomical changes, clinical findings, course and curability no two cases are alike. Hence each case has to be treated according to its clinical manifestations and forms. The treatment must be individualised, it must be elastic and adaptable to the pleo morphism of the disease and to various accidents and complications during the course. A fair number of cases have a tendency to recover under proper treatment and management.

Different methods seem to yield the same results more or less. Hence many methods have come up and many drugs have been tried. Psychic effects play a great role in the success or otherwise of any line of treatment. Traditional therapeutic triad—air, food, and rest—have stood the test of time. We should not however rest on these alone. There are other measures to aid and hasten recovery, relieve the symptoms and prevent the complications.

General Treatment

(1) *Sanatorium*: This offers a routine life under strict medical advice and supervision. There is abundance of fresh air, suitable food and rest, and exercises are controlled according to the stage of the disease. *The chief aim of the institution is to teach the patient how to live.* During the early acute stage he remains in bed. Later he is allowed graduated exercises and given suitable vocation. The routine of life is varied according to the seasons, and the condition of the patient. It is right perhaps to say that "it is play and not work that kills a consumptive". Some advise a course of tuberculin during the sanatorium stay to minimise or abolish the state of allergy. From there the

patient either goes home or to a colony, and for two years he is watched for a breakdown. After one year the chances of secondary lesions are small or none.

(2) *Fresh air* is an essential part of the treatment. Persons under open windows and light is less exposed to cold. Fresh air promotes general good health, and prevents the patient from being too susceptible to the variations of temperature.

(3) *Climate*: Tuberculosis occurs in all countries, and climate seems to play a very small part in the treatment. Sanatoria on hills, at seaside, in hot or cold countries yield almost the same result. It is the individual rather than the place that seems to matter more. An elderly patient with poor circulation, asthma and bronchitis do well in a warm place. A robust youth is better off in a cold place. Celsus 2000 years ago advised change of climate for the consumptive. A temporary change of environment is a good tonic, but no country or climate has curative effect. General principles are: (a) in acute cases rest being the chief need climate has no special importance; (b) in subacute and chronic stages the patient should live in a place where he can take his daily walks in a reasonably fine weather, avoiding the extremes of cold and heat. Damp, fog and rain-bearing winds are bad, but plenty of sunshine is cheering. The important thing is how to live rather than where to live. The patient's social habits and business occupations should receive a fair consideration at the hands of his physician.

(4) *Diet*: Ordinary diet with high A and D vitamin value is the best diet. A diet of 3000 caloric value is obtained from 90 grams of protein, 160 grams of fat, 200 grams of carbohydrate. An adult patient should drink $1\frac{1}{2}$ pints of milk daily. Cod liver oil or haliverol after meals help to enrich the diet.

Drug Therapy

(1) *Calcium*: Tuberculous patients are often found suffering from calcium deficiency in their blood. Para-thyroid ($\frac{1}{4}$ th of a grain) mixed with calcium is usually given. Kalzana, Caloinol or calcium lactate may also be tried. Cod liver oil by its vitamin D content is a good adjunct to calcium. Calcium is deposited in the tubercles to wall off the organisms.

(2) *Iodine*: Colloidal iodine is frequently used in the treatment of tuberculous glands. Nascent iodine has still a place in the treatment of tubercular pleurisy. 30 grains of pot. iodide is given in a tumbler full of water at 7 a. m., 11 a. m., and 1 p. m. At 3 p. m. 1 oz. of chlorine in half a pint of lemonade is administered.

(3) *Arsenic*: It is used for its action as stimulant of nutrition, haematinic, reconstructive, and alterative in wasting diseases. It fortifies the tissue against the ravages of the disease organisms. It should be given for three months with short intervals every fifteen days. Fowler's solution in three minim doses is administered. Sodium cacodylate is given as injections.

(4) *Creosote*: It diminishes expectoration, removes the disagreeable odour of the sputum and lessens the purulent discharge from the lungs. It is excreted through the mucous membrane of the bronchi. It must be used with care as its indications are limited. It is indicated in chronic apical lesions and is given in capsules. It is contraindicated in exudative lesions with albuminuria.

(5) *Guaiacol* is an active principle of creosote and is used in the place of the latter.

(6) *Glycerophosphates of lime iron and manganese* are used as general tonic.

(7) *Cod liver oil or haliverol* serves as substitutes for animal fats and is supposed to contain small quantities of idoine, bromine and vitamins A and D. These stimulate parathyroid and thus help the calcium metabolism. Cod liver oil should be given in 2 oz. quantity daily for an adult. Children with cervical and tracheo-bronchial glands do well on it.

(8) *Gold*: Various gold preparations are on the market. Gold is supposed to stimulate the defensive forces of the body. Sanoerysin has perhaps had the widest use since 1923 when it was first discovered. It still holds the field though perhaps not to the previous extent. Preparations like Cresalbine, Solagonal B, etc., are also employed in place of Sanoerysin. It is given intravenously in doses of 0.5 grams with an increase of 0.5 grams every time at an interval of 3 to 5 days and then an increase of 1 gram at weekly interval till 6-7 grams are used for the whole course. It is indicated in acute exudative diffuse form, where there is no or only a slight temperature and where the case is not suitable for artificial pneumothorax, or in conjunction with A. P. in unilateral disease; where the specific organisms persist in the sputum in spite of treatment; and in fibro caseous cases with steady spread in spite of treatment. Its unfavourable reactions are temperature, vomiting, hiccough, gastric upset, diarrhoea, dermatitis, arthritis and albuminuria.

(9) *Tuberculin* is tried as a specific. No records of definite cures are available. It often activates dormant lesions. In early stage with slight lesions it gives some improvement.

Symptoms like cough, fever, hæmoptysis, dyspnoea, etc., are treated along the usual lines.

Special Treatment

Special forms of treatment are mainly surgical. Complete excision of the pathological process if it were possible would be the ideal solution in the treatment of pulmonary tuberculosis. Rapid progress in thoracic surgery has changed the above visionary idea into a logical hope. It is obvious that general practitioner cannot adequately meet all the demands. It is equally obvious that the specialists must resort to team work to accomplish the best result. It is unfair to both the physician and the patient to leave the treatment of pulmonary tuberculosis entirely in the hands of a

(Continued at foot of next page)

TUBERCULOSIS NOTES.

How School Helps to Fight Tuberculosis

• Dr. V. Krishna Row, L. M. & S.,
Medical Officer, Presidency
College, Madras

"Where there is no vision, the people perish"

—BOOKER T. WASHINGTON

In my last article,¹ I had outlined in brief a scheme of medical examination of school and college populations, including a T. B. survey, as an essential preliminary work in the anti-T. B. campaign, started under the auspices of the King George's Thanks-Giving Fund. It needs to be impressed that this would give greatest value for the money expended. Leaving aside the other aspects of tuberculosis, I shall discuss how the school can help to fight tuberculosis.

¹ Indian Medical Journal, May 1939.

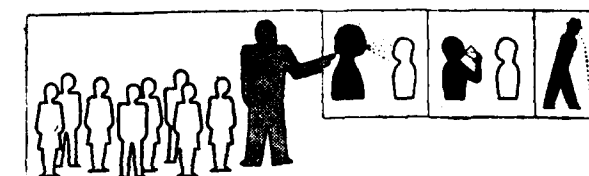
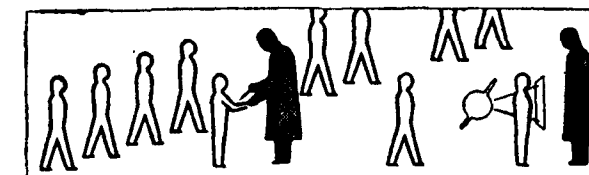
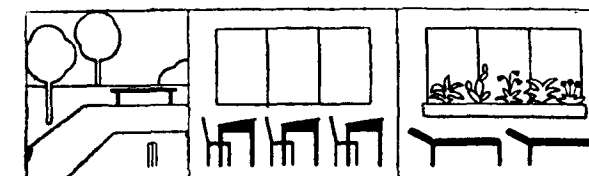
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general practitioner. The mild and moderately advanced cases not responding satisfactorily to routine treatment must be considered for A. P. which is the best procedure to keep the diseased area under control. The A. P. should be as complete, as effective and as lasting as possible. The technique, indications and contra-indications are too well known. The complications and sequelae though encountered are becoming lesser due to improved technique. The scope of indications is on the increase as experience grows. The chief problem in A. P. is the question of when to permit re-expansion of a collapsed lung. A simple exudative lesion or a recent infiltration without any visible cavities get absorbed in a relatively short time, say in 2-3 years, counting from the time when sputum became negative. In old fibrocaseous cases with thick-walled cavities minimum period of collapse should be 5-7 years. The guiding factors in deciding re-expansion are mainly two: (1) condition of the lung before collapse, (2) the nature of the lesions rather than their extension, and the age of the patient.

General Remarks

The cure in tuberculosis is only relative and not absolute. The gloomy procession of quiescent or arrested cases so often retracing their weary steps to our sanatoria or hospitals is a regrettable demonstration of ultimate failure of our methods of cure or arrest of the disease. Cruel as it sounds, there is truth in the saying "Once tuberculous always tuberculous". The phases of the disease may vary in severity and degree and assume a baffling pleomorphism. The modern methods of treatment have however mitigated the sufferings due to this disease though not yet found a cure for it.

T. B. is spread by kissing, spitting, coughing, sleeping in the same bed with a sick person, personal toilet, and the exchange of anything that has touched the lips of the sick. Every case of

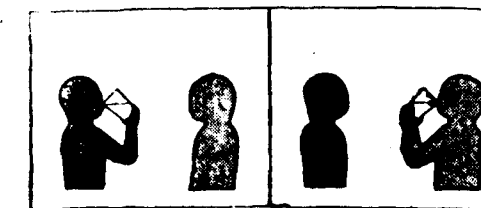
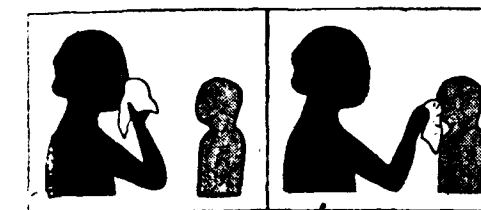
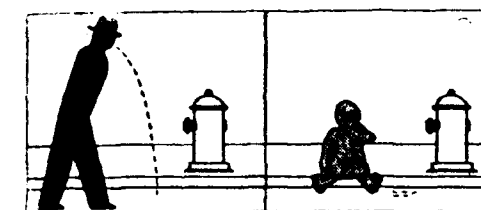


How school helps to fight tuberculosis.

TOP: School surroundings teach children how to live sensibly.

CENTRE: Health Examination of all children.

BOTTOM: Health habits are taught and practised.



TOP: Sick people spit on the ground, and the child may later pick up the germs on his fingers

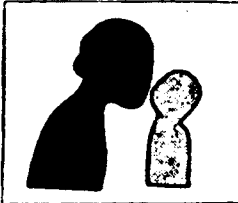
CENTRE: Personal toilete articles should be used by one person only.

BOTTOM: Common drinking vessels convey infection.

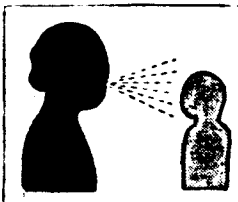
T. B. comes from another. Therefore one tuberculosis patient is enough to infect the whole family. This spread of *T. B.* can be prevented by breaking the contact, that is, by segregation and placing the patient in a sanatorium.

The *School* is the only place where the community's children meet. A systematic examination of pupils by qualified doctors may reveal the physical defects. After a complete medical inspection, the children as a whole are put to tuberculin tests.

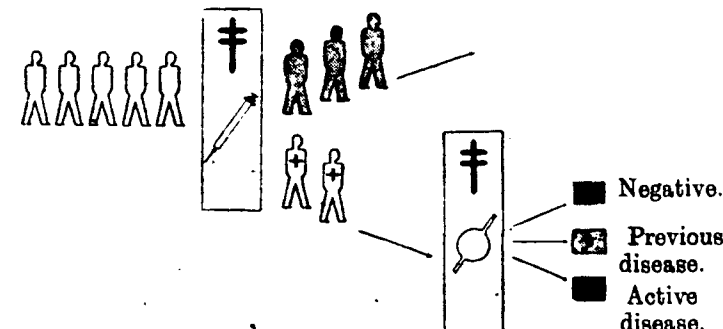
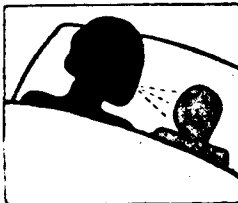
A Tuberculous mother kissing her baby may plant the germs directly on to the child's lips.



A cough or sneeze or brisk talking may shower the germs in little droplets directly to another person's lips.



Sleeping in the same bed with a sick person is dangerous because of long hours of close contact.



More than 50,000 high school students were tested and x-rayed. A great majority were negative; scars of previous disease 1600; serious disease found in 72.

Those who react positively are then x-rayed to see if any damage has been caused to lungs.

The school teaches health habits, attitude, and knowledge as part of the school-health programme in all advanced countries. A few educational institutions, here and there in India, have interested themselves in the health of children, but these do not serve the purpose of an uniform policy, to be adopted through out India to-day. This scheme of health education for the "health, happiness, and

well-being of children" is lacking in the present system of education, including the great experiment of the Wardha scheme of education chalked out by Mahatmaji.

The objects of health education and school health programme² are:

- (1) To arrange for hygienic conditions of teaching;
- (2) To train pupils to live hygienically while in school;
- (3) To provide for the correction of physical defects, as far as possible;
- (4) To teach pupils useful health knowledge;
- (5) To provide physical activities suited to the health needs of the pupils;
- (6) To direct school programmes so as to prevent the spread of communicable diseases;
- (7) To encourage pupils to practise hygienic living outside of the school.

It is an admitted fact that the early discovery of tuberculosis before it causes disease is the primary thing in the cure of tuberculosis. Delay is dangerous. This early diagnosis is possible *only* by a regular medical inspection scheme³, more or less on the lines suggested by me. This medical inspection scheme includes necessarily a *T. B.* survey. This would be found a most valuable auxiliary programme in the Anti-*T. B.* campaign, so worthily inaugurated by Her Excellency the Marchioness of Linlithgow.

I am very much indebted to the National Tuberculosis Association, U.S.A., for the courtesy and permission to reproduce their illustrations appearing in this article.

² *Ind. Med. Jour.*, Aug. 1938. American School-health programme.

³ *Journal of the Madras University*, July 1939. *Ind. Med. Jour.* May 1939.

PRIMARY TUBERCULOSIS IN CHILDREN

Primary tuberculous infection of lungs in children usually takes place without any obvious disturbance of the health of the child. The lesion often is a small one. The process of healing has been shown to occupy more than one year, and, presumably, during this time the focus is always a potential source of dissemination of the disease. Rate of healing improves with nourishment and increased sunlight. Margaret Macpherson—*Br. Jour. Tuberculosis*, April 1939.

During the Age of Growth

At no time, throughout the span of life, is the proper and orderly balance of calcium, phosphorus and iron, vitamins and other highly important food elements more readily disturbed than during the period of active growth and development.

The food supply of every child should, therefore, contain an adequate proportion of these important substances, if normal progress is to be maintained. The construction of an entirely correct dietary, to suit the varying requirements of each individual is, however, beyond the possibility of realization in ordinary practice.



Many physicians ensure that the ordinary dietary of the young patient is safe and adequate by advocating the daily addition of 'Ovaltine.' This is a complete, well-balanced food, rich in natural vitamins and in readily assimilable calcium, phosphorus and iron.

'Ovaltine' is composed of full-cream milk and malt extract. Its sugar content is chiefly in the form of maltose, a very readily available source of energy. No cane-sugar or chocolate is added to give bulk or to cheapen the cost. 'Ovaltine' is delightful to the taste and readily assimilable even by digestions impaired by disease.



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BILIARY
LITHIASIS
CONGESTION
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CHRONIC CHOLECYSTITIS
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Public Health Commissioner's Annual Report for 1937*

"Fever" alone accounted for over 3,000,000 deaths or 55 per cent of the total mortality, and respiratory diseases for 8 per cent, according to the Public Health Commissioner in his Annual Report for 1937. The large figure for "fevers" almost certainly includes over a million due to malaria and large unknown numbers due to typhoid fever and tuberculosis.

Existing agencies for the registration of vital statistics in rural areas make it impracticable to carry out classification of the causes of death except in a few large groups and, apart from such diseases as cholera, smallpox and plague with which the people are familiar, other deaths are ordinarily recorded as "fevers", "respiratory diseases" and "other causes". So true is this that nearly 93 per cent of the six million and odd deaths registered during 1937 were placed in these three groups.

In the respiratory group, pneumonia figures as a prominent cause of death, the proportion of pneumonia deaths ranging between 56.2 per cent and 27.5 per cent of the total respiratory deaths in the different provinces. It is certain that large numbers of deaths from tuberculosis must also have been included in the respiratory group.

In comparison with these diseases deaths from cholera, smallpox and plague are of relatively minor importance, though in the popular imagination these three are the most dreaded epidemic diseases. In fact, during the period 1925-37, the combined mortality from these three diseases did not exceed in any year, 10 per cent of the total recorded mortality. In 1937 deaths from cholera, smallpox and plague formed only 1.6 per cent, 0.5 per cent and 0.9 per cent respectively of the total mortality in British India.

PREVENTIBLE SUFFERING

Whatever the relative importance of these diseases, it is clear that much of the suffering and mortality resulting from them are preventable and should be prevented. The Public Health Commissioner rightly points out that the problem of prevention is not, however, purely medical because social, economic and administrative questions are involved in its solution. Whilst knowledge of the causative factors of each disease undoubtedly forms the foundation of sound preventive work, disease as a community problem is largely dependent on social organisation and on the habits of the people.

Improvements in environmental hygiene, more detailed supervision of the health functions of local bodies by Provincial Governments through their expert advisers for the attainment of a higher level of efficiency in health administration and, above

*Summary by the Principal Information Officer,
Government of India.

all, the need for health education of the people are stressed for a reduction of the vast amount of needless suffering and sickness existing in the country. Even under existing Local Self-Government Acts, Provincial Governments possess considerable powers of supervision over their local authorities and, by their rule-making powers, Governments can secure a large measure of control over them and coordination of their efforts for raising existing standards of health administration.

A noticeable feature of public health administration during recent years has been the tendency in India and elsewhere for setting up special machinery for fighting particular diseases such as tuberculosis, leprosy and venereal diseases. This is to some extent inevitable because of the necessity for specialisation in the methods of diagnosis, treatment and prevention. At the same time the fundamental unity of the health problem of the community should be kept in view. While special "drives" against individual diseases have their commendable feature in that community effort can be organised on a scale which may not otherwise be possible, the most desirable plan of campaign is to envisage the health problem as a whole and to apportion the available resources in relation to the importance of the diseases in question.

This requires a long-term planning and the ascertainment of the causes of morbidity and mortality in local areas with a precision which existing vital statistics do not provide. The necessity for detailed statistical investigations in limited areas by the public health staffs, wherever they are available, is therefore urgent and, in course of time, a body of accurate information can thus be built up, which should prove invaluable for shaping public health policy in the provinces.

MALARIA

Malaria, tuberculosis and leprosy have, within recent years, received increasing attention from health authorities and voluntary organisations in the country. Provincial public health reports show a general recognition that malaria constitutes the major health problem in most provinces. The rural malaria death rate is approximately three times the urban rate and, as nearly 90 per cent of the population is rural, the problem is urgent. The difficulty, as in other malarious countries, is that the communities to be protected are widely scattered and poor, instead of being aggregated into restricted areas and comparatively wealthier.

The general policy in the provinces is to provide an adequate supply of quinine or cinchona febrifuge, to popularise the use of these drugs as far as possible by means of propaganda and teaching in the schools, and to provide extra medical staff and travelling dispensaries to localities visited by regional epidemics. Probably the most efficient scheme of quinine distribution in India has been organised in the United Provinces.

Recently schemes have been inaugurated in certain provinces, financed jointly by grants from the Government of India (through the Indian Research

Fund Association) and from the provincial governments concerned, with the object of controlling rural malaria in selected areas. The idea underlying this policy is to devise and test out methods which may subsequently prove applicable over more extended tracts of the country. Each scheme is being financed for five years.

TUBERCULOSIS

Regarding tuberculosis, the last decade has recorded considerable progress in organised effort. In 1929 a central organisation came into being when various schemes were considered for the utilisation of the King George V Thanksgiving Fund. It was decided that this fund should be devoted to a campaign against tuberculosis and the King George Thanksgiving Fund Anti-Tuberculosis Committee was constituted. With an annual income of only Rs. 53,000 the activities of the Committee were necessarily restricted.

The organisation consisted of a Central Committee at New Delhi and branch committees in the Provinces and States. The Central Committee employed an organising Secretary, who toured the country, organised provincial and district branches, addressed public meetings and medical gatherings and prepared propaganda material. In addition, the Fund organised special courses of training in tuberculosis for medical men at the All-India Institute of Hygiene and Public Health, Calcutta, and at a number of provincial centres.

The special appeal for funds for fighting tuberculosis which was issued in the name of the King-Emperor by Her Excellency the Marchioness of Linlithgow in December 1937, has met with an excellent response and has made it possible to organise the anti-tuberculosis campaign on a wider basis. The Tuberculosis Association of India was formed a few months ago, incorporating the King Emperor's Anti-Tuberculosis Fund and King George Thanksgiving Anti-Tuberculosis Fund. It is expected that a considerable number of Provincial and State Associations will be formed in the near future and that these will affiliate with the Central Association. These bodies will do much to stimulate and supplement the activities of official medical and health departments in their anti-tuberculosis campaign.

LEPROSY

The inauguration of the Indian Council of the British Empire Leprosy Relief Association in 1925 produced a distinct advance in the campaign against leprosy. A capital fund of Rs. 20,25,000 was created by an appeal to the country and the annual income from this fund, amounting to nearly a lack and a quarter, was made available for furthering anti-leprosy work in all directions. Later, a further donation of Rs. 3,13,000 was received from Their Majesties' Silver Jubilee Fund. The demonstration that early cases of leprosy were amenable to treatment also helped towards awakening public interest and towards the organisation of effort to combat the disease.

For the execution of its programme of work the Indian Council is assisted by 17 provincial and

State branches. Such items of the programme as research, propaganda, training of doctors, which benefit the country as a whole, are mainly the concern of headquarters, whilst the provincial branches are responsible for the provision of treatment and other matters of local importance. For the latter purposes about 50 per cent of the entire income of the Association is made available to provincial and State branches and a sum of Rs. 7,93,000 has been so distributed during the last 13 years. In addition, the branches have received grants both from provincial Governments and local bodies.

Research work has been carried on at the School of Tropical Medicine, Calcutta, in cooperation with the authorities of the School and the Indian Research Fund Association. This work has been carried out at a cost of Rs. 3,37,000 up to the end of 1938, and the results obtained have been published in the annual reports of the Association as well as in scientific journals in India and abroad. Special experimental investigations in childhood leprosy and in rural and urban control of the disease are also in progress under expert supervision in certain selected areas in Bengal and Madras. The new provincial governments have given public health a prominent place in their development programmes, with the result that in a number of provinces increased financial support for anti-leprosy activities has already been obtained whilst, in others, expansion of existing schemes is under consideration. The average medical practitioner is also taking a much greater interest in the disease than before and the Association receives increasing demands for special training in treatment and prevention.

HEALTH IN JAILS

For prisoners in the Andamans and provincial jails, 1937 was a satisfactory year from the point of view of health conditions. Excluding the Andamans, the death rate from all causes decreased from 11 per 1,000 of the population in 1936 to 10 per 1,000 in 1937. Influenza, malaria, tuberculosis of the lungs, pneumonia, dysentery and diarrhoea, all showed appreciable decreases in incidence. Reduction in the incidence of malaria occurred in almost every province, an outstanding exception being Sind. In the Andamans, the death rate was 9.5 per 1,000 as against 10 per 1,000 in 1936.

Judged over a period of years, the general standard of health in Indian jails has shown considerable improvement. In 1922 the rate of admission to hospital and the death rate from all causes were 784 and 22 per 1,000 while in 1937 the corresponding figures were 493 and 10. The admission rate fell, during this period, by about 37 per cent and the death rate by about 55 per cent.

Overcrowding in the jails continued to exist in several provinces during the year, the numbers being in excess of authorised accommodation in Bengal, Punjab and North-West Frontier Province. In the Andamans, however, there was no overcrowding.

Provincial public health activities relating to adulteration of food, medical inspection of school children, sanitary control of fairs and festivals, health education of the people and so on, leave an impression that the efforts so far made fall short of minimum standards of efficiency.

The Public Health Commissioner hopes that his annual reviews of provincial activities will help towards the growth of a public opinion demanding higher standards of achievement.

PUBLIC APATHY

Adulteration of common articles of food is widely practised in India and the subject has not received the attention it deserves. Milk and milk products are everywhere adulterated. In one province, 73 per cent of the samples of ghee examined, 50 per cent of the samples of milk and 40 per cent of the samples of butter, were found to be adulterated.

One of the causes of this unsatisfactory state of affairs is the apathy with which the public view the matter. As has been pointed out by the Public Analyst to the Government of Madras: "Not only do the general public show no active resentment against the food vendors who are regularly swindling them but there appears to be a body of opinion which is actually prepared to co-operate against the authorities who are doing their best to suppress a system of wholesale fraud". Education of the general population is essential if any campaign against food adulteration is to be successful.

Certain improvements in administration appear to be equally necessary. Generally speaking, the executive functions of local authorities are vested in elected chairmen, who are subject to continual pressure from their electors. For successful routine public health administration, the health officer should be entrusted with executive functions. In Madras recent public health legislation has transferred all the executive health functions of local authorities to their health officers. This should effect improvement in public health administration generally, including the control of production and sale of articles of food, and is a change which may be commended to all provinces.

The subject of food adulteration is so important that the Central Advisory Board of Health has referred it to a special committee for investigation and report. It is hoped that the recommendations and will be adopted by Provincial Governments and that, in consequence, a more active campaign against this evil will be enforced throughout the country.

HEALTH IN SCHOOLS

The importance of a well-organised school medical service in a national health programme requires no special emphasis. "Medical Science has proved with unmistakable clearness that disease and with its incapacity in adolescence and adult life find their source, all too often, in the seed time of childhood. It cannot be doubted that much of the excess of sickness and mortality under forty years of age

must be attributed to this origin and some of the maternal mortality, some of the recruits rejected on physical grounds, some of the lost time in industry, some of the lack of resistance to infective disease may all derive from this same source". These words of the Chief Medical Officer to the Board of Education, England, and Wales, are equally applicable to India.

The school medical service in India is one of the latest developed branches of public health administration. In no part of the country has there been developed a comprehensive health service for school children. In the provinces of Madras and Bombay medical inspection was in abeyance in 1937 while, in Assam, only periodical inspections of selected institutions were carried out. In certain other provinces a school medical service has been developed in selected areas, usually urban, but the provision for follow-up of defective children and for treatment of the conditions revealed by medical examination are inadequate, though the provision varies from province to province. At the same time it is necessary to record that enthusiastic medical officers have been able to organise, in some places, treatment centres for defective children and the issue of milk or mid-day meals to under-nourished children. Physical education has also been receiving more attention during recent years.

PHYSICAL DEFECTS

Some interesting figures are given, for certain provinces, showing the percentages, among the pupils examined, of those having specific physical defects as well as of those having any kind of defect. Taking all defects together, the percentages of pupils found defective show wide variations, such as 81.6 per cent for boys and girls together in the North-West Frontier Province, 77.1 per cent and 55.4 per cent for boys and girls respectively in the urban areas of Delhi Province, 29.3 per cent for boys in the rural areas of the same province, 60 per cent and 34 per cent for children of both sexes together in the urban and rural areas of the United Provinces and 45.4 per cent for boys and girls together in Bihar as a whole.

Differences in respect of the same defect for boys and girls living in the same area are striking. For instance, in the urban areas of Delhi province, 24 per cent of the boys examined suffered from enlarged tonsils and adenoids while the percentage for girls was only 4.9. With regard to dental caries the position is reversed, the respective percentages for boys and girls being 6.7 and 12.8.

The New Delhi Municipal Committee has provided a satisfactory scheme by which, in addition to a routine examination once a year and the treatment of all defects falling within the scope of "first aid" by the School Medical Officer himself, ophthalmic and dental services are given by special clinics on certain days of the week, the services of specialists having been made available at these clinics. The municipality spends nearly Rs. 6,300 a year on this scheme which serves approximately 2,400 children and recovers a sum of about

Rs. 1,350 by charging a fee of two annas per pupil in the senior classes.

In the United Provinces, Central School Clinics have been working for the past few years in the cities of Agra, Allahabad, Cawnpore, Benares and Lucknow, a monthly fee of one anna being charged per pupil for their maintenance. In certain other towns whole-time school medical officers attend Sadar Hospitals at fixed hours for the treatment of defective school children. In other provinces some attempt is being made to provide treatment, parents of the children being advised to give adequate treatment through their own medical attendants or through the nearest hospital or dispensary.

FAIRS AND FESTIVALS

Within recent years the sanitary control of pilgrim centres has received increasing attention from provincial health authorities. The measures taken for this purpose have, in fact, reduced to a great extent the danger of explosive outbursts of cholera, although it must be remembered that, as in the extensive epidemic that followed the Hardwar Kumbh Mela in April 1938, large festivals with their inter-provincial traffic in pilgrims, who have often to pass through endemic regions of cholera, always hold out a threat of outbreaks. However, the general effect of precautionary measures now being taken has been satisfactory, for during 1937, all fairs and pilgrimages in the provinces of British India passed off without any serious outbreak of infectious disease in epidemic form.

The constant threat of outbreaks of cholera that these festivals present, in spite of all precautionary measures taken at the festival centres, has brought into prominence the question of introducing a system of compulsory inoculation of all pilgrims. This question was referred by the Central Advisory Board of Health to a special committee which will present a report to the next meeting of the Board. Within recent years, there has been evidence of an increased willingness on the part of the people to submit themselves to inoculation.

HEALTH PROPAGANDA

The importance of health education in the campaign for improved national health has received recognition from health authorities all over the country. From the time rural and urban health organisations began to be expanded about 10-15 years ago, the annual celebration of the "Health Week" by local authorities has been encouraged by public health departments as a means of focussing public attention on health questions. In several provinces, a separate organisation has also been built up for the preparation of suitable propaganda material and for the spread of health education. This is as it should be, because health propaganda is a highly specialised art and, if it is to be conducted on suitable lines, it must be entrusted to one who realises the difficulties and who knows how best to overcome them.

FOREIGN MEDICAL NEWS

Our London Letter

(From Our Own Correspondent)

BRITISH MEDICAL ASSOCIATION TAKES THE LEAD

The Central and Local Emergency Committees of the B. M. A. are responsible to the Government for the supply of medical personnel for the fighting forces and for the civilian population during this war. At the beginning of the last war, the medical profession was without organisation for meeting emergencies, but now, thanks to the foresight of the B. M. A., complete plans and personnel are now made available for all kinds of emergency work and it is indeed a great credit to the Association that the Ministry of Health has entrusted this work to the care of the Association. The part played by the medical men during the recent evacuation of hospital patients, invalids and children in London is really creditable and has evoked the admiration of all concerned. The Association keeps the profession fully informed through B. M. J.'s weekly supplements and Local Committees. There is no doubt that, after the war, the B. M. A. will emerge with greater prestige and power by virtue of services rendered to the nation.

SERO-DIAGNOSIS OF ENTERIC FEVERS

Lieut.-Col. J. S. K. Boyd (R.A.M.C., London), in a short paper, read before the B. M. A. section on Tropical Medicine, pointed out that the usual

The problem of health education in India is complicated by the fact that the majority of the population is illiterate. Moreover, there exist certain age-long customs and habits which cannot be easily changed. Instances are the indiscriminate pollution of village sites with nightsoil and the indifference of the people to contamination of their water supplies. It is difficult to convince the villager that, in respect of many diseases, man is his own worst enemy and that a radical change of habits is essential if sickness and mortality arising from avoidable diseases are to be prevented.

Both public health staffs and voluntary workers engaged in health propaganda continue their task in the face of much discouragement from the apathetic attitude of the people, but from the provincial health reports it is clear that, as far as available, every modern method of propaganda, is being utilised. The provincial reports indicate that hundreds of thousands of people in both rural and urban areas are being brought within the scope of the educational campaign. Whilst the magnitude of the task is such that the results so far achieved may appear to be disappointing, it is only fair to add that several Directors of Public Health have expressed the opinion that distinct progress has been made in the general health education campaign.

November, 1939]

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During the child-bearing period the nutrition of the foetus solely depends upon the quality and quantity of mothers' blood, as the child takes from it all the elements for its proper development.

Such things as anaemia, indigestion, defect in teeth, constipation, etc., of the mother may cause severe and irreparable damage to her unborn infant. In all countries except India the child is born with a robust health but here in this country—particularly in Bengal—it becomes weaker and weaker as time goes on and ultimately fades away. This is due to our nation's short-sightedness in neglecting to take proper care of the mother during pregnancy. None can expect a healthy and robust child from a weak and debilitated mother.

Infant mortality in our country is so high in comparison with other civilised countries that for the future welfare of our country and nation immediate attention should be given to the pregnant and nursing mother's health. It is absolutely necessary for the expectant mother to have plenty of fresh air, light, exercise, and nourishing but digestible diet and to take a proper hygienic care of all parts of the body.

During pregnancy the child in the womb takes all the ingredients for its growth from the mother's blood. This gradually renders the mother lethargic and anaemic in spite of the well-balanced diet the mother takes during this time. Some forms of medicaments are, therefore, required which can replenish the whole system. VINO-MALT is one which can claim as the ideal tonic in such cases as it contains the blood-forming and nerve-invigorating ingredients in its composition. It is specially beneficial to pregnant and nursing women, the exhausted system being speedily toned up through its wonderful tonic property.

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serological methods for the diagnosis of enteric fevers are not entirely satisfactory. In subjects previously inoculated with typhoid-paratyphoid vaccine various febrile conditions may produce anamnestic rises of H-agglutinins indistinguishable from those due to actual infection, while in true infections the O-agglutinins, although more specific, sometimes develop so sluggishly that a diagnostic rise is not obtained. Tests for Vi-agglutinins, only applicable at present to Bact. typhosum, are devoid of H- and O-antigen and possess only Vi-antigen. Vi-agglutinins have an important diagnostic significance in the early stage of infection but after the first week they disappear in many cases; they are also important in the detection of permanent carriers but may be absent in convalescent carriers. An important advance is the discovery of bacteriophage having a specific action in virulent strains of Bact. typhosum. Four serological types of such Vi-phage have been differentiated, one of which, type II, readily becomes conditioned specifically against various strains of Bact. typhosum; in this way thirteen phage-types of Bact. typhosum have been distinguished. These phages offer a simple means for typing unknown strains; a number of spreads on agar plates of the bacterium to be tested can be spotted with drops of the various conditioned phages in standardised dilution and the specific lytic effect observed. The phage type of the bacterium remains constant, being unaffected by passage through man, experimental animals or culture, and the test is of value, for example, in linking up an outbreak with a particular carrier, or in determining the source of an individual infection.

Dr. R. D. Stuart (Glasgow) asked whether continued fevers in India due to salmonella infections might not give confusing O-agglutinins may be found up to a titre of 1:100 T.A.B. inoculation. Dr. P. H. Manson-Bahr (London) said that during the war the H-titre in inoculated persons was found to rise during an attack of malaria. Dr. J. M. Alston (London) asked whether virulence varies with phage-type and whether supplies of bacteriophage are available and easy to maintain.

Replying, Colonel Boyd said salmonella infections are relatively unimportant as they are few and far between in India. He agreed that O-agglutinins and sometimes Vi-agglutinins, may develop after T.A.B. inoculation. Phage types of Bact. typhosum have not shown any antigenic differences in animals. Phage is easily propagated and preserved, and only minute amounts are required for a test.

Our American Letter

(From Our New York Correspondent)

GIRL-MOTHER OF FIVE YEARS

In Lima, Peru, an Indian girl of five years, is said to have given birth to a son by sectio-caesarea. Dr. Mac Cornack, practising physician in Lima, a member of the American College of Surgeons and founder of the Mac Cornack Clinic at Whitehall,

Wis., as well as Dr. Hippolito Larrabure, director of the maternity hospital at which the girl gave birth to her child, have no doubt that the girl is really less than 6 years old. Dr. Mac Cornack followed the case from the time medical attention was first drawn to it, and he said, that the age of the girl, besides other things, is borne out by her milk teeth, and the length and size of her bones. He called attention to the excess of calcium in the girl's body saying it had aided her in bearing a normal baby.

This event is indeed a "believe-it-or-not"-story, and doubts of many doctors about the real age of the girl-mother are understandable. Lima newspapers even have been offended by the doubts which have been uttered by United States doctors.

Menstruation and motherhood in very early years have been described frequently by reliable scientists although no mother of five years of age ever has been described as far as we can see. The first sign of potential ability to become a mother is menstruation. In a case reported by Bauer a woman's menstruation had begun at the age of seven, and that of her daughter at two years. The classic case of Haller occurred in Switzerland in 1759. The girl's menstruation began when she was 2 years old, but already at birth the hair upon her pubis had been entirely developed as well as the mammary glands. She became pregnant with 8 years, had regular menstruation up to 52 years and died at the age of 74. Pregnancy between the 8th and 10th years of age have been stated by Montgomery, d'Outrepoint, Molitor, Carus and others. Even Plinius and Seneca knew already a premature menstruation. Between 100 and 200 cases in literature have been told by reliable sources. An early North American case is that of Van Derweert in 1882. The girl's menstruation began when she was only four months old; the period occurred every 28 days and the menstruation flew 4 to 5 days each time.

It is not enough to be able to conceive, the bearing of the child is of the same importance. Not only the undeveloped pelvis, but the immature heart, lungs and glands are not ready for the burden of childbearing. Thus the theoretical interest in such an event as it is said to have occurred in Lima, may be great; but in a sociologic sense it is an unbelievable monstrosity.

NEW PEAK FOR SMALL-POX

Last year the total number of cases of smallpox in the United States mounted to 15,111 as against 11,687 in 1937 and 7,823 in 1936. Canada also showed a substantial increase of smallpox during 1938, the total cases reaching 127, as compared with 61 in 1937 and 62 in 1936. But the case rate for Canada was only 1.1 per 100,000, as compared with 11.6 for the United States.

The States chiefly responsible for the high smallpox prevalence were those lying north of the Ohio and west of the Mississippi Rivers. On the other hand, New England and the populous States of New York, Pennsylvania, New Jersey, Delaware, and Maryland, including the District of Columbia, succeeded in utterly routing the disease from their

borders; not a single case of smallpox was reported by these States during the year.

The reason of such differences is the fact that people readily accept the principle of vaccination as a preventive of smallpox in part of the States, while in other States it is generally opposed by the population. Three of the Western States actually prohibit compulsory vaccination by statutory regulation.

It is safe to say, the Metropolitan Life Insurance Company points out in an article about this disease, that smallpox can be just as thoroughly eliminated from the Western part of the country as it has been from the States bordering the Atlantic. All that is needed is an aroused determination on the part of the public to scrap its present ineffectual methods of control, and to substitute the easy, inexpensive and thoroughly effective measure of universal vaccination. Neglect of these precautions seems to the Metropolitan little short of criminal.

SYPHILIS IN AMERICAN COLLEGES

A study of syphilis in American Colleges, which was carried out by R. C. Tumbleson, and Howard W. Enns, Division of Venereal Diseases, United States Public Health Service, comes to the following conclusions. Based on a sample of more than 78,000 given college students, the prevalence of syphilis in American Colleges, is 1'99 per 1,000. In Negro colleges, the rate is 26'8 per 1,000. The slightly lower rate among college women is also in line with the national figures. Differences between large and small institutions and regional differences are without significance. Routine testing of all students would seem necessary to find all cases of syphilis.

At present there is considerable difference of opinion among college authorities concerning the value of blood testing and who should be tested. Two-thirds of college officials believe some method of testing is desirable, while nearly half of all institutions provide some means. Nine of 11 Negro colleges recognize the problem to the practical extent of giving tests; 6 of these schools test routinely. A fair proportion of officials believe that syphilis is bounded by class lines and hence blood testing is unnecessary in colleges.

There is considerable agreement concerning the educational value of blood testing, it being recognized that a check placed at this important age-group will result in an ultimate lower prevalence rates for the whole population. Cost has proved to be a minor factor in most cases since free State, country, or city laboratory facilities are usually available which, because of their large volume of testing, can perform laboratory tests at a low unit cost.

5-DAY SYPHILIS TREATMENT

Drs. Harold Thomas Hyman, Samuel Hirshfeld, Louis Chargin, William Leifer and Mrs. Justine J. Wanger have developed a new drip treatment for syphilis. The method which has been the subject of limited clinical tests for about six years, has recently been reported before the Association of American Physicians and the Section on Preven-

tive Medicine and Public Health of the American Medical Association. The work thus far done is so promising that Dr. John L. Rice, New York City's Commissioner of Health, appointed a committee of internists and authorities on syphilis to study and pass opinion upon the possibilities of heavy doses of curative neoarsphenamine.

The average dose given in the course of five days is 4'1 grams of neoarsphenamine or about one-seventh of an ounce. Each tenth of a gram is dissolved in 50 cubic centimeters of a 5 per cent dextrose solution. First a 5 per cent solution of dextrose alone is allowed to drip into the veins for an hour. Then for another hour the neoarsphenamine solution in dextrose is turned on. So the two alternate. Thus in a period of fifteen hours as much as 1,500 cubic centimeters may trickle into the blood. In 5 days about 7½ quarts of fluid pass into the body.

When the patients are discharged from the hospital their blood still reacts positively to the Wassermann test. But they are no longer considered to be sources of infection. Within twelve weeks the Wassermann test usually becomes negative. If the treatment is begun within eight weeks after infection, the response is more rapid than with older cases.

The work has been taken up in France recently. Several more years must elapse before a final verdict is rendered, but the clinicians who are testing the massive-dose drip method are hopeful of the outcome. Dr. Hyman and his associates regard the "Speed Shock" an important part of the usefulness of their method.

CHOLERA'S FIRST INVASION OF THE NEW WORLD

The years 1831 and 1832 were terrible years throughout Europe. From the Caspian Sea Cholera crossed by boat and caravan to the Black Sea and ascended the Danube into Southern and Central Europe, crossed Russia from the south-east to the north-west, and appeared in England during the summer of 1831. Then, in 1832, it came to the New World, to Canada. The story of Asiatic Cholera, from its outbreak in Canada and the United States in 1832 to its final conquest in 1892 is given in a very interesting description by J.S. Chambers, Professor of Hygiene and Public Health, University of Kentucky in his new book "The Conquest of Cholera" (New York, The Macmillan Company).

Ships, river steamboats, stage coaches, emigrant parties, individual travellers, each played its part in carrying this dread disease from one point to another. The doctors of 1832 thought cholera was caused by the aerial poison-miasm-malaria-proposed by Sydenham 150 years before as the cause of epidemic disease. The view was that this omnipotent, inescapable poison was wafted on the wings of the winds.

The Canadian epidemic of 1832, the first in the New World, was a part of the world-wide pandemic which originated in 1826 in the Delta of the Ganges. It came to Canada from Ireland on

(Continued at foot of next page)

INDIAN MEDICAL NEWS

(From Our Own Correspondent)

MEDICAL RELIEF IN MADRAS

"The number of medical institution, of all classes in the Province increased from 1,283 in 1937 to 1,322, in the number of private aided institutions from 79 to 115 and of subsidized rural dispensaries from 404 to 416" says the Government review of the annual report on the civil hospitals and dispensaries in the Presidency for the year 1938.

The Tuberculosis Institute at Egmore, the Tuberculosis Hospital at Royapettah, the Tuberculosis Clinic in the Victoria Caste and Gosha Hospital, Madras and Tuberculosis Sanatorium at Tambaram did good work during the year under review. The number of patients treated for tuberculosis increased from 76,915 to 85,799. The tuberculosis clinic run by the King George Thanksgiving Fund continued to be in charge of contact examination. In December 1938 a ward of ten beds for women was constructed at the Tambaram Sanatorium out of His Excellency the Viceroy's Entertainment Fund and was handed over to the Government. The Government have permitted private patients to construct cottages at the sanatorium.

Anti-leprosy work continued to make steady progress. The number of leprosy clinics increased from 442 to 456 and the total number of cases treated increased from 62,228 to 62,751. Leprosy officers carried out survey work in 82 villages. Students numbering 24,139 in 157 schools were examined and 389 cases of leprosy were detected. Twelve leprosy asylums were functioning during the year.

In accordance with the scheme for the appointment of honorary medical officers in Government medical institutions, seven posts of Civil Assistant Surgeons were thrown open to honorary officers

(Continued from previous page)

emigrant ships between the 28th of April and the 3rd of June. The port of entry was passed without difficulty and the scourge was transported to Quebec, Montreal and other towns along the river. The explosive nature of the outbreak was occasioned by the combination of the intense heat and the heavy rains which contaminated the drinking water. Labouring under the prevailing but fallacious theory of the cause of the pestilence the Boards of Health and the faculties were unable to cope with the epidemic and it ran its natural course. It reached its peak in about ten days, then slowly declined. Most of those stricken had died in from 3 to 6 hours. It seems probable that the cholera came to New York State from Canada (also in 1832) despite some evidence that it was in New York City before it arrived in the North.

and steps are being taken to accelerate the appointment of honoraries to more paid posts.

A re-organisation scheme for the General Hospital, Madras, was sanctioned under which the six surgical and six medical units in charge of officers of the rank of Civil Surgeons, three Chief Surgeons and three Chief Physicians were to be honorary medical officers. The reservation of beds for particular communities was abolished. A separate entrance and a separate dispensary counter were opened in the out-patient department for the use of patients who desire to get speedier attention on payment of a small fee.

The opening of "C" class paying wards for the benefit of middle class patients was sanctioned in the Government General and Rayapuram Hospitals, Madras.

The rates of fees charged for bacteriological, pathological and other tests and examinations in Government medical institutions for private persons were considerably reduced with a view to bring such analysis and examination within the easy reach of the general public.

In March 1938, the Government sanctioned the use of hand-pounded rice in six District Headquarters Hospitals. The Superintendents of the hospitals were unanimous in recommending the use of hand-pounded rice as being more nutritive and better relished by patients. Government have recently sanctioned the extension of the use of hand-pounded rice to all Government hospitals, if genuine hand-pounded rice is available.

Government have decided that Indian male patients in Government hospitals may be supplied with white dhoties with suitable distinctive border instead of the black fringed red cloth.

The rural medical scheme was improved in some respects. A scheme for the deputation of rural medical practitioners for training in, and performance of public health work was sanctioned. With a view to extend maternity relief, midwives were sanctioned to most of the rural dispensaries. The power of appointment and termination of services of midwives employed in rural dispensaries was vested in District Medical Officers. These officers were entrusted with the duty of inspecting periodically the institutions of Indian medicine including rural dispensaries maintained or aided by local bodies and those aided or subsidised by the Government.

MEDICAL RELIEF IN BOMBAY

The triennial report for 1936-1938 records the introduction of unit system in the J. J. group of hospitals. A committee of hospital superintendents was created to discuss and advise on matters of common interest to all hospitals. A blood transfusion service was organised in 1938. X-ray examination of private patients introduced by medical practitioners is now permitted by the Government on payment of a small fee. New centres for anti-rabic treatment were opened. Persons whose monthly income does not exceed Rs. 40/- in Bombay City and Rs. 30/- in mofussil are considered as indigent and treated free but the

levy of one anna fee to out-patients who are neither indigent nor well-to-do still continues. The total number of institutions at the beginning of the triennium was 534. 17 new dispensaries were opened during the year. After the separation of Sind the total number of hospitals was 450 at the end of December 1938. In order to encourage the study and spread of Ayurveda the Government have sanctioned two Ayurvedic schools with hospitals attached to them.

NO PREFERENCE FOR FOREIGN DEGREES

The notion that foreign educational degrees in non-technical subjects even confer advantages in the matter of Government appointments is sought to be dispelled by the Bombay Government. The Note says *inter alia*:

Foreign degrees will not necessarily confer any advantages in Government Service. If with this knowledge students desire to go to foreign universities in order to secure indirect advantages such as those arising from travel, residential universities, etc., they will be at liberty to do so.

A BLOOD BANK FOR CALCUTTA

In a recent broadcast talk from the Calcutta station on "Blood Transfusion," Dr. Sir U. N. Brahmachari said that the "Bank" envisaged a systematic collection of blood from voluntary (unpaid) donors. Before the "donation" is accepted, the donor is medically examined and the blood to be offered is tested as to its compatibility with the requirement of the recipient, the patient.

"Some suitable blood may be available from a blood storage known as 'Blood Bank' where the blood of a safe universal donor has been kept stored. By a safe universal donor is meant one whose blood is compatible with that of any other individual. The advantage of a 'Blood Bank' is that while donors may often be difficult to find especially in cases of poor patients, stored blood is easily available at short notice. Some observers consider that the length of time during which stored blood may be utilized is about ten days. Others hold that the period of therapeutic usefulness of stored blood may continue for even 30 days.

Broadly speaking the functions of a blood transfusion service should consist among others of two parts. First, enlistment of voluntary donors, grouping and examination of their blood, keeping a list of donors whose blood may be available in times of emergency; and secondly, keeping a list of certain donors whose blood has been grouped and tested, and maintenance of a Blood Bank for the storage of blood to be used when no suitable donor is immediately available for a patient who is hovering between life and death."

THE QUALITY OF QUININE

The Bio-Chemical Standardisation Laboratory, Calcutta, after a study of 125 samples of quinine preparations have come to the conclusion that only 26.4% were found to be upto standard or to agree with the claims made on the labels of the containers. That is the reason, it points out, why

EXTRACTS

Infectious Mononucleosis

John R. Paul (*Bull. of the New York Academy of Medicine*, Jan. 39, p. 48) calls attention to the fact that glandular fever under the old terminology is really an infectious mononucleosis in which glandular enlargement is but a part of its manifestation. He thinks it is a definite clinical entity and deplores the indifference and inattention paid to this disease. The author studied 51 cases at the New Haven Hospital and he found that it is more common among young adult males, particularly among those in sedentary employment. The clinical picture is: general glandular enlargement, mononucleosis, increased titre for sheep cell agglutination, leucopenia, sore throat, malaise, pain in the shoulders and the neck and an irregular fever lasting from one to three weeks. In severe cases, the symptoms are more acute and there may also be (1) intense pain in the eyes or in the back of the eyes (2) a papulomacular rash and (3) jaundice. The ultimate diagnosis rests upon increased titre for sheep agglutination. Like the Wassermann test it is essentially a non-specific reaction, but in syphilis we know the aetiological agent, whereas in this disease we do not.

Modern Treatment of Schizophrenia

Karl M. Bowman (*Bull. of the New York Academy of Medicine*, May 39, p. 388) gives an excellent review of this disease and its modern treatment. Krepelin gave the term "dementia praecox", but later Bleuler suggested the term "Schizophrenia" and he regarded the essence of the disorder as a splitting of the psyche. Almost every conceivable theory has been advanced to explain this disease. Heredity, physical factor such as a brain lesion, an endocrine or metabolic disorder; obscure toxemia from foci of infection; psychological factors due to repressions and mental conflicts are some of the explanations of its origin. There are others who believe that it does not arise on the basis of a single cause but that is due to a number of causes—hereditary, organic and psychogenic. The older treatment accordingly varied and depended upon the particular view of the psychiatrist. During the past 2 or 3 decades there has been great emphasis on the psychological treatment, and equal stress was laid on re-education and occupational therapy.

Various types of physiologic treatment were evolved during the last 10 or 15 years but none of them gave permanent results. Fever, sleep and stimulation therapy were all employed by different workers with indefinite results. Lately physiologic treatment was introduced by means of Insulin and Metrazol, and it is believed that insulin coma and/or metrazol convulsions temporarily pace the brain at rest and have some effect in obliterating the newly acquired neural pathways. It is also believed that nervous impulses are blocked from flowing over the newer and abnormal pathways, and that they revert to the normal pathways causing normal behaviour, or at any rate returning to the prepsychotic

medical men have repeatedly complained that quinine has not given the desired and expected results, and concludes that some form of State control for checking and standardisation of this drug is clearly indicated. It also recommends that the profession pharmacy in India should be placed on a better footing.

personality. The essence of insulin and/or metrazol treatment is that the patient is given daily sufficient insulin to produce shock or coma, in other words a relative period of hypoglycaemia. Insulin treatment has got 4 phases: (1) patient is given intramuscular insulin early in the morning with overnight fasting, starting with 10 to 30 units and increasing the daily dose until the patient develops shock or coma. Food is given 4 hours after the insulin injection. (2) The second phase begins when the dose is sufficient to produce severe hypoglycaemic shocks either in the form of coma or convulsions. (3) This phase is continued from 20 to 50 days. (4) The fourth phase consists in reducing insulin dosage and administering carbohydrates within two hours after the injections. The essence of this treatment is the development of the proper type of shock and the termination of the shock at proper time. The maximum period for hypoglycaemia should be six to seven hours. The dangers of this treatment are (1) aspiration pneumonia (2) spasm of different muscles (3) chill due to excessive perspiration.

The use of metrazol as a specific method of therapy for schizophrenia was introduced by Meduna who had been greatly interested in a number of observations by various writers that epilepsy rarely occurred in schizophrenia and that in some way epilepsy prevented the development of schizophrenia. The essence of metrazol treatment is that the patient receives intravenous injection of 5 c.c. of 10% sol. of metrazol. The injection is given as rapidly as possible, since if given slowly no convulsion is produced. Within a few seconds, the patients develop typical epileptic convulsions. The treatment consists in the production of two or three such convulsions a week for a period of three to ten weeks.

While these treatments have given a relatively high percentage of success, the author is of opinion that either insulin or metrazol will not remain with us long as the best method of treatment owing to its inconvenience and dangers.

The Present Status of Protamine Insulin

Herman Lande (*Bull. of the New York Academy of Medicine*, Apr. 39, p. 273) points out that the value of protamine zinc insulin lies in the fact that it makes available a constant supply of insulin throughout the day and night. It has undoubtedly facilitated the treatment of the mild and moderately severe diabetic patient of the mild and moderately severe regular insulin, only controlled by 30 units or less of regular insulin, but it has not solved the problem of the severe diabetic. Perhaps 25% of these cases may be satisfactorily controlled with a single dose of protamine zinc insulin. Another 25 to 50% may be controlled with the aid of supplementary doses of unmodified insulin. In the remaining cases it has been possible to control the nocturnal glycosuria but it has not been possible to keep the urine sugar free during the day without the precipitation of serious hypoglycaemic reactions. Unfortunately, there are no criteria by which one can predict which cases will respond satisfactorily to protamine zinc insulin, because it is not a substitute for the normal pancreas as the insulin is liberated from its subcutaneous depot at a constant rate rather than in response to the physiological demands of the body.

Vitamin B Complex and Their Clinical Importance

J. Norman Davidson (*Post-graduate Med. Jr.*, June 1939, P. 236) gives an excellent review of the recent advances and recounts the various stages in the study of vitamin B complex. At first it was thought to be found in the husks of cereals which prevented beri-beri. In 1925, Goldberger of the U.S.A. concluded that pellagra also was a disease due to vitamin deficiency, and for example, fresh yeast could prevent both diseases but if the yeast was first autoclaved it could no longer prevent beri-beri although it still remained its power to prevent pellagra. Hence he thought that vitamin B consisted of at least two components, vitamin B₁ which prevented beri-beri and vitamin B₂ which prevented pellagra. Within the last few years it has been found possible to concentrate the vitamin from rice polishings and to isolate it in pure crystalline form. Williams in 1936 showed that vitamin B₁ contains both the pyrimidine and thiazole ring systems. It has been given the name of aneurin in Europe and thiamin in America. The next step was the synthesis achieved in 1936 by Williams and Clive. Vitamin estimation is made either by chemical or physiological methods, and as a result of these methods the vitamin B₁ content of various foods has been estimated.

Apart from definite deficiency state like beri-beri, it has been observed that lack of vitamin may arise also from poor gastro-intestinal absorption and produce symptoms just short of beri-beri, such as constipation, anorexia, poor appetite, nausea, etc. For the same reason vitamin B₁ is administered parenterally in cases of alcoholic polyneuritis, subacute combined degeneration of the spinal cord, and polyneuritis of pregnancy. How vitamin B₁ acts on the system is somewhat as follows. In the absence of vitamin B₁, lactic and pyruvic acid cannot be dealt with in the normal fashion. The diphosphate of vitamin B₁ acts as a co-enzyme to the enzyme carboxylase which is necessary for the oxidation of the lactic and pyruvic acids. In the normal course of events in carbohydrate metabolism, lactic and pyruvic acids are oxidised to break down products under the influence of carboxylase and its co-enzyme. If vitamin B₁ is lacking in the diet, sufficient of the co-enzyme is not produced and the oxidation is deficient. Lactic and pyruvic acids therefore accumulate in the body giving rise to various pathological states.

Vitamin B₂ is quite distinct from vitamin B₁. It is now found that it is not a single substance but a group of substances. One of this is lactoflavin or riboflavin present in yeast, whey, meat and eggs. This does not however prevent pellagra. Another substance is the amide of nicotonic acid. Both nicotonic acid and its amide were tested on dogs suffering from black-tongue with dramatic results, and it was equally dramatic in the prevention of human pellagra. Probably nicotonic acid acts as a component of a co-enzyme responsible for intracellular oxidations.

The present position appears to be that nicotonic acid is the pellagra preventing vitamin, or at least part of it, and that one function of it in the body is to act as a component of two co-enzymes which are necessary for certain fundamental intracellular chemical process. Vitamin B₁ and lactoflavin also act as essential components of enzyme systems. Whether or not the connection between vitamins and enzyme systems gives us the key to the elucidation of the true nature of the physiological action of vitamins remains to be seen.

Complications During Artificial Pneumothorax Therapy

R. Viswanathan (*Ind. Med. Gaz.*, Sep. 39, p. 548), encountered the following complications in a series of 300 patients on whom pneumothorax was attempted.

Pleural effusion	... 106
Pain—severe	... 22
—slight	... 17
Surgical emphysema	... 16
Mediastinal displacement	... 15
Spontaneous pneumothorax	... 7
Dyspnoea	... 6
Obliterative pleurisy	... 5
Pleural shock	... 1
Puncture of big blood vessels	... 1

Gas embolism, sepsis and pneumoperitoneum did not occur in his series. He therefore warns against the abuse of artificial pneumothorax therapy by "enterprising young physicians who are liable to use it in season and out of season and thereby bring this excellent instrument into undeserved disrepute".

Post-partum Haemorrhage

Robert M. Corbet (*Br. Med. Jour.*, Aug. 26, 1939, p. 488) writes that according to his investigation into the causes of maternal mortality in New York, 6.8% post-partum was responsible for 7.5% of the deaths in England and Wales and 8.9% in Scotland. He suggests the following measure to reduce the mortality:

- (1) Treatment of anaemia during the ante-natal period.
- (2) Refraining from interference with the normal uterine action during the third stage.
- (3) Realising the danger of attempting delivery through the partially dilated cervix.
- (4) Early recognition of the failure of the normal mechanism of placental separation.
- (5) Having adequate equipment prepared to deal with the haemorrhage rapidly, particularly where the history or the patient's condition suggests the likelihood of bleeding.

He divides post-partum haemorrhage into 3 classes:

- (1) Placental site haemorrhage.
- (2) True atonic haemorrhage where there is no bleeding till after delivery of the placenta.
- (3) Traumatic haemorrhage, particularly lacerations of the cervix.

Clinical Value of the Electrocardiogram

Solomon Strouse and others (*Jr. of A. M. A.*, Aug. 12, 1939, p. 576) warn against the tendency of the clinicians to rely too much on the electrocardiogram for the final interpretation of the heart condition at the expense of a careful history and an accurate clinical examination of the patient. The authors analysed 100 clinical cases with electrocardiograms with the following results:

Electro-cardiographic interpretation	Coincided with clinical evidence	Differed from clinical evidence
Normal	23	16
Probably normal	3	3
Border line	9	9
Probably abnormal	11	8
Definitely	54	46

The above study demonstrates that while the electrocardiogram is a useful tool in clinical practice it constitutes only one part of the clinical examination and that it must be co-related with the rest of the examination. The five gradations of electro-cardiographic interpretation exemplified in the table are an attempt at

objective quantitative interpretation independent of clinical evidence. Great care must be paid to the minutiae of the cardiograph, such as the contour and direction of the QRS complex, the level of the ST segment, and the direction, size and shape of the T wave, as well as the peculiar forms seen in cases of excessive treatment with digitalis and coronary insufficiency. Particular attention should be paid to auriculo-ventricular and intraventricular block. The electrocardiac diagnosis of sub-sternal pain or distress is exceedingly difficult and dubious because the pain may not always be due to coronary disease or insufficiency but to psychoses, certain occupations, diseases of the spine or nerve roots, diaphragmatic hernia, abdominal diseases, lesions of lung and pleura, or cardiospasm. These extracardiac causes have to be excluded, but one must not forget that organic heart disease may be present and the pain still be due to some other cause, and that chest pain of cardiac origin may be present in the absence of electrocardiac abnormalities. The characteristic curve of coronary insufficiency, of digitalis excess, of auriculo-ventricular block, of intraventricular block, of auricular fibrillation, of pulsus alterans and of multiple premature systoles are of special significance in most cases and often tally with clinical diagnosis. But the authors are of definite opinion that the clinical practitioner should resist the temptation to allow the electrocardiogram to make his diagnosis and prognosis for him.

Syphilis from An Internist Standpoint

1. Syphilis may be present without history of initial lesion or definite clinical manifestations (this is especially true in women).
2. A negative Wassermann reaction does not necessarily rule out active syphilis which may include vascular syphilis; neurosyphilis or any other form of syphilis; therefore the test should be used only as one of the signs of syphilis.
3. Most so-called soft chancres are hard chancres and a gonorrheal infection may obscure a co-existing syphilitic infection.
4. The fixed pupil can practically mean only one thing and that is cerebral syphilis (with the possible exception of encephalitis).
5. The tendency in the so-called Wassermann-fast case is to treat the test rather than the patient.
6. A negative blood and a negative cerebrospinal fluid does not necessarily rule out cerebrospinal syphilis.—Willard C. Stoner, M.D., in *Urol. and Cutan. Review*, January, 1939.

Management of Breech Deliveries in Primiparas

T. R. GOETHALS (*American Journal of Obstetrics and Gynecology*, 37: 683, Apr. 1939), from an analysis of 800 pelvic deliveries and 32 cesarean sections in normal primiparous women at the Boston Lying-In Hospital, concludes that the management of breech presentation in primiparas "resolves itself primarily into an estimate of the relative advisability of abdominal section versus delivery through the pelvis." Minor degrees of pelvic contraction are of more importance as an indication for cesarean section than in normal presentation as the test of labor is "of no value for the aftercoming head." The size of the infant in utero must also be considered; this is best determined by x-ray measurements. The x-ray is of value in any case in which cesarean section is contemplated not only "to confirm and control" the findings in regard to the size of the infant, but also to detect gross skeletal abnormalities not found by clinical examination. In the cases in the author's series in which cesarean section was done the chief indications were contracted pelvis, age of the mother (primiparas over forty) and estimated large babies. If pelvic delivery is chosen as the best method "the second stage of labor should be terminated by breech extraction under full anesthesia before the birth of the umbilicus, as classically recommended, has occurred." (*Medical Times*).

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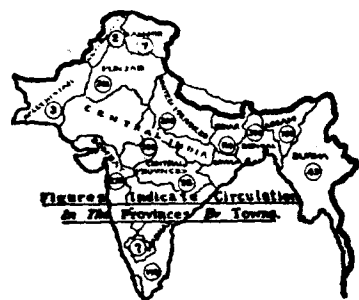
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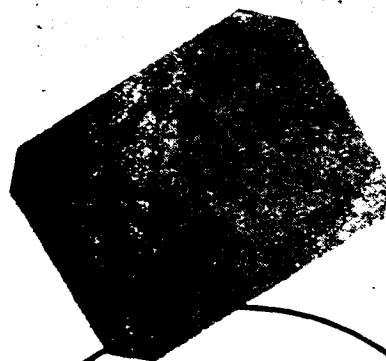
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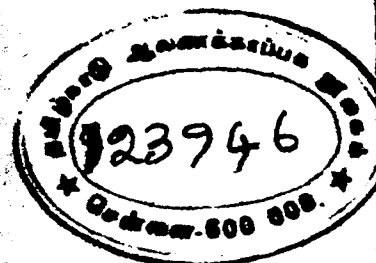
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* *Practitioner*, March 1939 Page 317.

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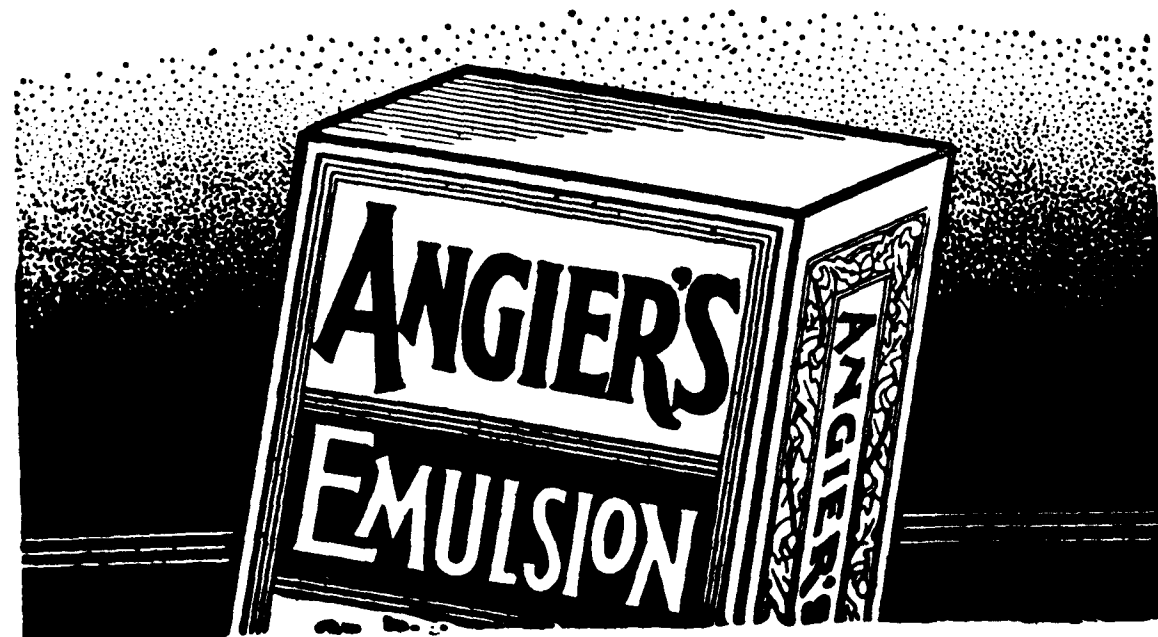
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Laryngitis and other Res-
piratory Affections*

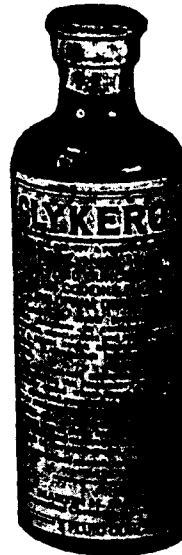
A Bronchial Sedative

Control the cough that
weakens your patient.

GLYKERON quickly relieves
this distressing symptom
because it contains medi-
cally approved respiratory
sedatives.

Your patients with respi-
ratory affections do better
when they sleep better—
without coughing.

GLYKERON may be admin-
istered to diabetics freely
as it contains no sugar or
syrup and causes no dis-
turbance of digestion.



Stimulating Expectorant

GLYKERON loosens the mu-
cus in the bronchial pas-
sages and aids in its ex-
pulsion.

It lessens the hazard of
complications by getting
rid of germ-laden secre-
tions.

Prescribe it for the symp-
tom of cough. Very pal-
atable.

GLYKERON supplied in 3 oz.
as well as 16 oz. bottles.

DOSAGE: Adults, one to two
teaspoonfuls every two or three
hours or at longer intervals as the
individual case requires. Children,
from ten drops to one teaspoonful
according to age.

Literature on request

MARTIN H. SMITH COMPANY · NEW YORK

AFTER THE MOST EXACTING TESTS

LEXIN

**The famous treatment of Snake bite
has been recognized by the five
Faculties of Medicine
in Central America - the habitat
of the Rattle snakes. "LEXIN
works wonders" - they recorded.**

SOLD BY CHEMISTS Re. 1 per bottle (4 drs.)

BOX OF 6 AMPOULES. 6 x 2 c.c. Rs. 2-4-0

P. BANERJI, MIHIJAM, E. I. RY.

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