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EDITOR

V. R. GORAKSHAKAR, B. A., M. B., Ch. B., (Edin.)
OSMANIA GENERAL HOSPITAL,
HYDERABAD-DECCAN

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Temporary Plague Hospital, 1928, Baradari
Hyderabad, Deccan.
(Frontispiece)

Interesting Facts gathered at the 7th Congress of the Far Eastern Association of Tropical Medicine held at Calcutta, December 1927.

AN ADDRESS

BY

R. N. COORLAWALA, F. R. C. S., (ENG.), D. P. H.:
(CANTAB)

*Delegate representing Hyderabad State on the
Central Committee of the F. E. A. T. M.
(7th Congress),*

*Superintendent, Osmania General Hospital,
Professor of Surgery, Osmania Medical
College, Hyderabad-Deccan.*

Ladies and Gentlemen,

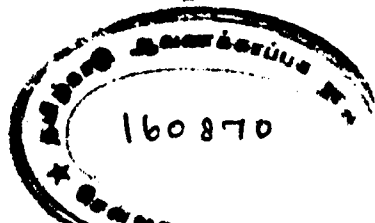
A memorable gathering of medical men took

place when the 7th Congress of the Far Eastern Association of Tropical Medicine was held in India for the first time, and was opened in Calcutta by His Excellency the Governor of Bengal. Over 900 delegates took part in the proceedings and the distinguished visitors from Overseas include many men of world-wide reputation whose names are on the lips of every medical student as benefactors of human race on account of their discovery of the cause or cure of certain fell diseases.

At the opening ceremony, Sir Stanley Jackson read a message of welcome to the Delegates from His Excellency the Viceroy.

Alluding to the public health measures in India, the Governor said the fact that there was a steadily growing demand not merely for Doctors but for Health Officers had justified the Government's policy of first concentrating their efforts chiefly on medical relief.

In Bengal apathy and indifference were disappearing, and in many places there was an embarrassing demand for preventive measures, especially against cholera. Thousands of people were coming forward for injections against Kala-Azar—the chief scourge of Bengal—inoculation against cholera was readily accepted by people who a few years ago would have resisted to death, and numbers of persons in the early stages of leprosy were now seeking treatment. These, said the Governor, were some of the hopeful signs in Bengal.



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The Congress lasted a week commencing on Monday the 5th December and ending on Saturday the 10th December 1927. A few interesting facts that struck me most are here mentioned.

In the section of Surgery, Major-General A. Hooton, C. I. E., I. M. S., K. H. P., brought up the question of choice of operations for vesical calculus. Vesical calculus is of course a common disease. Litholapaxy was put on a sound working basis by many an American and Indian Surgeon and has been considered thoroughly established for many years past as the procedure of election in all but a very few exceptional cases. But since 1914, Litholapaxy was superseded by the cutting operation. Litholapaxy requires dexterity; the patient is discharged early from the Hospital. Patient escapes the knife and in complicated cases the mortality has been reduced to 1.2 per cent. In the combined cutting and crushing operation (Keats) a small perineal incision is made, Urethra opened as far as possible, Director passed into it, dilated with Hegars dilators, and stone then crushed through this channel. The main contra-indications for Litholapaxy are want of dexterity, small Urethra, large or hard stone, tumour of bladder or prostate and cellulitis of bladder, stone impacted at the neck of bladder.

Next to Litholapaxy, Supra-pubic operation is the best. For Litholapaxy expensive instruments are of course necessary. The paper of General Hooton set out to combat the retrograde character of teaching in England and America as regards the operation of choice for stone and after arguments

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in favour of Litholapaxy and Lithotomy had been thoroughly discussed, the Congress agreed that Litholapaxy is the operation of choice for the stone in the bladder.

Sir Frank Connor brought up the question of surgical aspects of filariasis and pathology of filariasis is very imperfect. What is the first early test of filarial infection of the body? Filaria is very widely spread in various parts of India. Generally 10 or 15 years elapse before the disease manifests itself by filarial fever, lymphangitis, orchitis, synovitis, chyluria, elephantiasis, hydrocele, abscess, lymph-glands, etc.

I had the honour of mentioning during the discussion a peculiar manifestation of filariasis in the shape of abdominal tumours, viz.: three cases of filarial cysts of mesentery and liver, a paper read before the Hyderabad Medical Association and published in the January number of the Deccan Medical Journal, 1927.

CAUSES OF PLAGUE.

In the section of plague, the following investigations were considered of particular importance by the Expert Plague Committee.

Bubonic Plague:—1. Further investigations into the methods of destruction of rats and fleas; 2. Investigation on the comparative epidemiological role of the various species of fleas in plague transmission in selected areas of India, as being the most heavily infected country; 3. The species of fleas concerned and their viability under natural conditions; 4. Survey of Plague in the wild

rodents of Northern Asia (Tansbaikalia, Manchuria and other Chinese provinces) by an international mission, provided such mission receives substantial support from the countries concerned; 5. Investigation of the part played by grain and cotton in the dissemination of plague and measures to prevent this spread; 6. Investigation of the conditions under which plague is carried over from one season of incidence to another; 7. Investigation on the relative importance of rodents other than rats in the transmission of plague in various countries; 8. Investigation of rat and flea conditions in ports (shore lighter, ships); 9. The ship fauna being investigated both in ports and during the voyages, in Eastern and Western areas. This information should be collected by the Singapore Bureau for providing information on application to quarantine measures.

Prophylaxis and Therapeutics:—1. Speedy preparation of Anti-plague vaccination; 2. Possibility of reducing local reaction to anti-plague vaccine; 3. Possibility of reducing a plague anti-toxic serum; 4. Further studies on anti-plague bacteriophage and its practical applications and chemio-therapy of plague.

Pneumonic Plague:—1. Investigation of the incidence of bubonic plague cases in out-breaks of pneumonic plague; 2. Relative incidences of cases of bubonic plague, secondary pulmonary plague and primary pneumonic plague in the various out-breaks; 3. Study of the possibility of existence of a special ultra virus of filter-passing form of B. Pestis as the causative agent of pneumonic plague.

Quite recently, I saw a case of plague in Residency Bazaars occurring three months after the last case in that area. A child 6 years old was attacked by plague in an upper-storeyed house in Residency Bazaars on his return with his parents from a healthy locality in the districts, where they had gone away on account of plague 6 months ago. This demonstrates, the interesting fact that plague fleas can remain dormant in infectivity for lengthened periods of time even in our climate as Prof. Mikanorow of Saratow has demonstrated in his paper.

A very interesting paper was read by Prof. Mikanorow of Saratow, on plague in South-East Russia, which showed the marked difference in the epidemiology of plague in the area dealt with as compared with India both in relation to the rodent concerned and the flea carriers of infection. The interesting fact was elicited that fleas would remain infective under the climatic conditions present for periods up to 400 days. The large number of different species of fleas found, all of which were capable of carrying plague, and none of which were the same as those found in India, was illustrated. A discussion then followed on pneumonic plague, and the clinical and therapeutic aspects of the disease.

ENTERIC FEVER.

Lt.-Col. F. A. F. Barnardo opened the proceedings with a paper on Enteric Fever. He emphasised the necessity for early accurate diagnosis before secondary infections obscured the picture. The

gravity of secondary streptococcal infections was stressed, and the need for anticipating this complication by adequate dosage of anti-streptococcic serum was urged. Col. Barnardo strongly advocated close co-operation between clinician and pathologist at all stages of the disease.

HOW DYSENTERY IS SPREAD.

The section of dysentery sprue and other intestinal diseases was presided over by the distinguished physician from Japan Dr. K. Shiga, who is known all over the world for his discovery of the Shiga Bacillus.

The section opened with a paper by Dr. Ukil, dealing with the dysentery of Bengal. These diseases were spread by personal contract, by fleas, and by drinking of contaminated water. In order to test the proportion of infections which might be attributed to fleas, over 100 examinations of these insects had been made.

Both in the paper, and by various speakers during the discussion the fact was brought out that *acillary dysentery was far more frequent than the shiga form*, the percentage of different speakers varying from 66 per cent to 90 percent. The paper on sprue was presented by Col. Mackie, and showed that the medical profession were still far from knowing just what was the cause of this disease and he said that much work still remained to be done.

The paper on Bacteriophage by Dr. D. Heroll opened up a most interesting vista of inquiry and hope with regard to bacteriophage. Briefly, summa-

raised the statements amount to this, that among the Bacilli which were attacking the human body and causing diseases there could be developed a disease that attacked and preyed upon the bacteria themselves destroying them and curing men.

The section of Immunology and Chemotherapy met under the Chairmanship of Prof. Hata. An important paper on some factors influencing the therapeutic value of Salvarsan was read by him and he maintained that the toxicity of salvarsan and neo-salvarsan was great in concentrated solutions and this toxicity diminished as the solution's dilution increased. Further, the therapeutic efficiency of intravenous solution of salvarsan and neo-salvarsan is increased proportionately according to greater dilution.

TUBERCULOSIS.

In the course of a paper entitled "Prevention of Tuberculosis in India" Dr. Ukil (Calcutta) said that the problem of tuberculosis had now assumed an international aspect and was very important to India with her land and maritime relations with other countries.

"Asiatic countries are still much less bacilised than those of Europe and America. As a cause of morbidity and mortality tuberculosis is one of the most important of diseases. The incidence of the toll of leprosy in India is much less in comparison with those of this socio-economic disease. Yet its claims have not attracted the measure of attention it deserves from medical men as well as the State.

It will be to the interest of all the countries to co-ordinate their efforts in the anti-tuberculosis campaign."

It was resolved that the accounts of the Association be changed from Fasli year to A. D. This step was taken to avoid confusion. Till now business in connection with the Journal of the Association was being carried on according to the A. D. year while the subscriptions etc. from the members were being collected according to the Fasli year.

Attention should also be paid towards removing the factors which favoured contagion, namely, raising the standard of living and the hygienic standard of the home by ensuring cleanliness, plentiful supply of fresh air and sunlight. He also suggested the modification of the Factories Act to provide for compulsory health insurance of clerks, menials, teachers, and other classes of workers, and finally the co-ordination between the different anti-tuberculosis organizations.

Dr. Kesava Pai in a paper entitled "the role of gold Salts in the treatment of Pulmonary Tuberculosis" pointed out that Sanocysin and Krysolgan were two salts of which it cannot be said that either has a specific action on the disease though it cannot be denied that they form valuable adjuncts to other forms of treatment, especially that by artificial Pneumothorax; whilst the more diseased is being kept under control by the Pneumothorax, the less affected lung can be influenced by the gold cure.

Whilst Sanocysin produces no severe reactions in moderate doses, Krysolgan is more toxic and

gives more compeasant effects even when administered in much smaller doses than Sanocysin. Haemoptysis and abdominal symptoms were particularly frequent under Krysolgan treatment.

Though of the two drugs Sanocysin is more effective neither can be said to produce the marked and decisive results of Pneumothorax therapy.

But the value of gold treatment consists in its applicability to bilateral and military cases where Pneumothorax cannot be employed.

Sanocysin is more valuable in the exudative cases whilst Krysolgan seems to have a better effect in the Fibrosing cases. This is presumably due to Sanocysin acting chemically whilst Krysolgan acts catalytically stimulating further fibrosis.

Examine urine 4 times a day for albumen during treatment and until all albumen disappears don't give Sanocysin. Shock is negligible. Commence dose with .1 gramme and work up dose. No shock even in large doses.

No marked albumen. If appears stop treatment. Stomatitis is marked and deposit of gold in skin of face and lips. When dose reaches .3 or .4 gramme high fibrile reaction with loss of appetite appears.

A new piece of knowledge in respect of the problem of cavities is that they can occur in the initial stage in rather considerable size. These cavities are divided into primary, secondary, and tertiary depending upon whether they arose from the primary

complex, the early infiltrate, or the adult phthisis. The prognosis of such cavities with simple sanatorium cure and without active, i. e., surgical treatment, is usually bad. 30—40 per cent of such patients at the most remain alive for any number of years. Usually 10 per cent (15 per cent at the most) are clinically cured (usually early cavities). The prognosis is considerably improved by pneumothorax (especially in early cavities). It may be possible to stop T. B. from being a world-wide disease by removing the sources of infection.

It is no longer tenable to state that adult phthisis begins in the apex. Secondary infiltrations with a tendency to decomposition (cavities) can be observed, especially in youthful patients, which lie just under the clavicle, slightly laterally and near the wall of the Thorax. The X-Ray picture shows a round, not well defined shadow at that point. Such an infraclavicular, early infiltration usually induces an acute, severe and open T. B. At the beginning this shadow is about cherry size, but in a few weeks it is already the size of a plum or a peach. There are no definite local symptoms at first, the disease looks more like grippe and the fever and catarrh disappear within 1—3 weeks. Early diagnosis of such cases is seldom although there may be T. B. in the sputum at this stage. The infiltration can heal with a scar or it can lead to similar infiltrations and decomposition in the vicinity (puberal phthisis, galloping consumption). In suspected cases it is therefore necessary to examine well, especially the region under the clavicles

by X-Rays. Be careful also in cases of grippe especially such as recurring attacks which never give the patient a chance at real recuperation (examination of sputum for bacilli with condensing method). For prognosis it is important to remember that such early infiltrates and cavities are not to be judged unfavourable in themselves. They can heal spontaneously and do so regularly under active therapy.

BACTERIOPHAGE.

Bacteriophage and Bacteriophagy by Monsieur D'Herelle, F. (Director of the Bacteriological Service; International Quarantine Council of Egypt).

"Bacteriophage is a "Principle" which produces the dissolution of bacterial cells and reproduces itself in the course of this dissolving process. This principle is present in the intestine of every man and animal; in normal individuals it develops upon saprophytic intestinal bacteria. During recovery from a bacterial disease a bacteriophage principle, capable of dissolving the bacterial agent of the disease, is present in the intestine of the convalescent and even in certain organs.

He has brought out a whole series of experiments (since confirmed by several authors), which show that the bacteriophage is composed of filter passing corpuscles; that these corpuscles are autonomous and possess their own properties entirely independent from the bacteria at the expense of which they reproduce themselves; that these corpuscles possess the power of assimilation and adaptation. Those various properties, autonomy, assimilation

and adaption constituting the criteria of life, every being which possesses them is necessarily living "by definition".

The bacteriophage then is a filter passing parasite of bacteria, protobios bacteriophagus, D'Herelle, 1918, and the phenomenon of bacteriophagy in reality is the result of an infectious disease that prevails amongst bacteria.

In the infectious intestinal diseases of man, and animals, the end result, *recovery* or *death*, is intimately associated with the behaviour of the intestinal bacteriophage.

In normal individuals, bacteriophage lives upon saprophytic intestinal bacteria. By a process of adaptation (experimentally demonstrable in vitro) which is more or less rapid according to surrounding circumstances, bacteriophage is able to parasitize any invading bacteria.

Experiments show that the patient invariably succumbs when the adaptation is lacking. In case of recovery, the improvement begins from the time when the bacteriophage isolated from the stools of the patient is capable of producing complete bacteriophagy in vitro.

The importance of the behaviour of the bacteriophage upon the course of an epidemic is as great as it is upon the process of the recovery.

At the beginning of an epidemic there are disseminated into the environment the pathogen

bacteria, this is the period of the propagation of the disease. Then from the first convalescent, there are disseminated bacteriophages, which have acquired the power of killing and dissolving the pathogenic bacteria in his intestine. From this time more disseminated and the epidemic declines, finally to cease when "contamination" by bacteriophage becomes general.

Recovery and immunity are contagious in the same way and by the same means as infectious disease itself.

Bacteriophage is a Specific in the treatment and Prophylaxis of Cholera and Bacillary Dysentery is demonstrated by D'Herelle.

He has pointed out that observations and experiments show that the behaviour of the bacteriophage is intimately related to the natural process of the recovery as well to the stopping of the epidemics. The best way to verify the truth of such a statement is to realize cross experiments, i. e., to reproduce both processes experimentally by employing cultures of bacteriophages.

In relation to bacillary dysentery, he treated in 1919 several cases of Shiga, and Flexner dysenteries, giving 2 cc. of a culture of a potent bacteriophage, to be taken by mouth. In every case all symptoms definitely disappeared within 24 hours, whatever the gravity might be. Since then bacteriophage treatment has been widely employed in Brazil and in the Sudan, where thousands of cases have been treated, and his first statement has been entirely confirmed.

He strongly warns experimenters that cultures of weak bacteriophages are entirely useless for the purpose of treatment.

In the course of the present year, thanks to the Indian Research Fund Association, and with the collaboration of Major Malone, I. M. S. and Dr. Lahiri, he has been able to make extensive researches in relation to cholera. In the great majority of cases the result of the bacteriophage treatment in cholera has been fully efficient.

They have also tried the stopping of village epidemics by spreading over potent cholera bacteriophages into the environment. To that purpose they added 50 c. c. of a selected bacteriophage culture in the wells supplying the infected area. The first results have been extremely promising. As the experiments are actually continuing the statistics of both treatment and prophylaxis will be given in the paper later on.

OBSERVATIONS MADE WITH PLASMOCHIN IN MALARIA.

Plasmochin is a synthetic chinolin derivative (alkylamino-6-methoxychinolin, presented by the I. G. Dye Works, Elberfeld), resembling quinine. With tertian or quartan malaria its effect is similar to that of quinine in that it kills the plasmodia in every stage of development. After the administration of 0.02 gm. 3 times daily for 1 or 2 days, the attacks of fever abate and in 5 or 6 days, the parasites disappear from the blood. With plasmochin it is however also necessary to continue the treat-

ment for weeks. With tropical malaria it destroys the sexless forms (schizonts) while the sexual gametes are refractory; with tropical malaria plasmochin 0.02 gm. 3 times daily should therefore be combined with Chinin—Sulphur sic 0.25 3 times daily. With this method of treatment, the well known secondary effects of quinine (tinnitus aurium, conditions of intoxication) do not occur. Dragees of Plasmochin comp. (containing 0.01 Pl. and 0.125 chinin sulf sic) are on the market. With tropical malaria it is best to give 2 dragees 3 times a day for at least a fortnight, then after-treatment for 5 weeks at intervals of 2 to 4 days. The enlargement of the spleen subsides quickly, the blood pressure improves in a short time. Sometimes cyanosis and abdominal pain supervene, otherwise no secondary effects; albuminaria never occurs.

LEPROSY.

The Iodide Treatment of Leprosy. Dr. Muir, E. (Indian Research Association, School of Tropical Medicine and Hygiene, Calcutta).

The principle of this treatment is to administer doses of potassium iodide orally beginning with small and gradually increasing to massive doses, the rate of increase being regulated according to the degree of reaction produced.

The power of potassium iodide to produce reactions in leprosy has been recognised by leprologists since the time of Danielson but the reaction has been mistaken for an increase or reactivation of the disease and potassium iodide has therefore been con-

opened the proceedings in the section dealing with cholera.

Col. Russell said that one of the most serious problems, public health officers in India were called upon to face, was the control of recurring and extensive outbreaks of epidemic cholera. The bulletins issued by League of Nations indicated that at the present time, India was practically the only part of the world in which cholera persisted in epidemic form, and as Bengal had been called "the home of cholera" by most writers during the past 200 years it seemed fitting that that disease should form the subject of a discussion at an international congress in Calcutta.

Continuing Col. Russell said: "A review of the historical records makes it evident that the disease known as cholera was familiar to the Hindus, Chinese, Arab, Greek, and Roman writers of the pre-Christian era and that in India the cholera of to-day is exactly the same as it was at least 400 years ago and as it probably ever has been." Because of India's position as a source of infection to other countries, it has been the unfortunate custom in discussing the epidemiology of cholera to look upon epidemics there as relatively unimportant; and to devote the most time and energy to tracing the routes of spread from India to other parts of the world.

It is obvious, he said, that the epidemiology of cholera as it exists in India is the key to the problem, and it is surprising how little attention the epi-

sidered harmful. Experience now shows that the reaction (shown by swelling up and erythema of existing lesions, the appearance of rose-coloured nodules and a rise of temperature) is due to the breaking down of leprous granuloma and, if the treatment be carried through steadily according to the tolerance of the patient, it has been found invariably beneficial. Potassium Iodide has the power to search out the disease and destroy it wherever lesions may exist in the body, whether in the skin, mucous membranes, lymph nodes or nerves. Excessive or prolonged reactions are easily controlled by other drugs, but these seldom occur except at the beginning of treatment in advanced cases. While the more vascular lesions clear up quickly, the more fibrous granulomata may resist even such large doses as 240 grains given twice a week for a considerable time. It is still too soon to say whether potassium iodide will be able to effect a complete cure, but there is reason to believe, that its use is a distinct advance on other forms of treatment. It has the additional great advantage that it is given orally and if precautions are taken, produces practically no toxins or other inconvenient symptoms. It is therefore very suitable for the treatment of patients in the villages where they have to travel a considerable distance for medical aid.

PROBLEM OF CHOLERA.

BENGAL "HOME OF EPIDEMICS".

"Statistical studies in the Epidemiology of Cholera" was the title of a paper with which Lieut-Col. Russell, Director of Public Health, Madras

demio logical features of the disease have received in the past, most writers having been content, either to ignore the question altogether, or make a vain repetition of previously recorded inaccuracies; if the casual factors influencing the periodic outbursts of the disease in this country could be elucidated its spread to other countries would cease altogether or in any case cease to be of any importance.

DEFINITE INFERENCES.

Cholera in India is a very familiar and easily recognised disease, and although many cases of diarrhoea are no doubt strongly included, it has been found that results are not vitiated to any extent by assuming that all deaths registered as cholera are actually such. By using the statistics for different provinces it has been possible, for example, to forecast epidemics of cholera two or three months ahead of the actual outbreaks. It may, therefore, be stated with confidence that the available data are sufficiently accurate for purposes of a comparative epidemiological study and that they may permit of definite inferences being made.

A study of the annual cholera deaths over a long period of years has made it possible to divide the provinces of India into three great groups. The first group includes the provinces of Assam, Bengal Bihar and Orissa, and the United Provinces, where more or less uniform figures are registered annually, and where the average incidence is high. These areas are likely to be epidemic in nature. In the second group are included the Central Provinces,

where sudden peaks in cholera incidence occur at regular intervals. These areas are nearly free from cholera epidemics, and infection is probably always brought in from outside. The northern and central district groups of the Madras presidency are epidemic areas, whilst the southern districts which presents uniform incidence might almost be included in the first group as an endemic area. As with other epidemic diseases cholera spreads widely and rapidly at certain periods, whilst at other times it remains dormant or spreads only sporadically and with difficulty. The regular seasonal appearance of the disease in more or less virulent form is a well-recognised characteristic of its manifestations. It has been found in nearly all the areas where cholera is epidemic, waves of the disease recur once every 5 or 6 years while in endemic areas 4 to 5 years periodicity is most probable. In every case the periodograms show that cholera tends to run a more or less definite course of revival, decline and subsidence in each cycle of years.

SUCCESS IN MADRAS.

It must not be understood, however, that cholera in India adheres to a regular cycle. As Sir Leonard Rogers has stated, the problems associated with the epidemiology of cholera are not so simple as to be explained by the cyclic trend. Koch tried to explain this periodicity "mainly through the influence of the immunity which follows extensive ravages of the disease". Probably other factors have an equal significance, but whatever influence may be at work it is certain that a foreknowledge of the probable ad-

vent of a periodic wave in the incidence of the disease would go far to prevent waste of efforts in unnecessary directions and at unnecessary seasons. In Madras we have for three years past made use of that knowledge with considerable success.

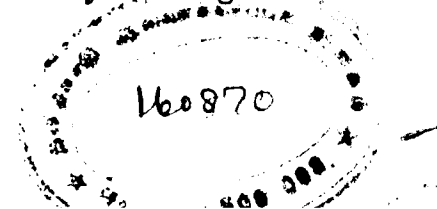
PILGRIMS AND CHOLERA.

Colonel Russell and the new Vaccine.

Proceeding Col. Russell said, "So long as public health departments confine their attention merely to the eradication of the disease so long will their efforts end in disappointment. The proposal to protect millions of pilgrims year after year by means of the new cholera vaccine was one that might make the bravest tremble and the boldest public health administrator submit his resignation. Inoculation against cholera is, of course, no new experiment in India, and public health authorities are well acquainted with the prophylactic value of the new cholera vaccine.

It is obvious in any case that inoculation by itself cannot be expected to eradicate cholera unless extensive sanitary arrangements are made at important towns and trading centres, the provision of pure water supplies, rapid collection and disposal of refuse; and an alert staff; and the immediate notification of outbreaks of the disease are all important essentials which are receiving more and more attention from provincial governments and public health departments.

In the great task of controlling cholera in India we need the co-operation not merely of the govern-



ments in India but of all interested in the welfare of India, and the support of such international bodies such as the League of Nations and the Far Eastern Association of Tropical Medicine will go far to ensure advance. It ought not to be beyond the skill of man with all the weapons of modern science at his command to devise measures to meet successfully many of the influences at work and only when these are introduced will it be possible to hope for the control and eventual eradication of this deadly enemy of mankind.

AVOIDABLE SUFFERING.

A well informed Press, both European and Vernacular, but especially the latter, would be one of their most powerful allies in this great fight; for fight it must be even to waging war and carrying it right into the enemy's camp. This was a work which had to be done for the benefit of Indians. To be effective it must carry conviction and establish its position against immemorial conservatism and tradition; it must therefore be done by Indians. It presents a grand and unlimited field for Indian public health workers, be they male or female; but it was well to recognise that the improvements could not be achieved when the expert labourers were few in number, that these could not be increased to the requisite number without a careful system of specialised training institutes or schools devoted to public health teaching and research and that this could not be done without adequate financial support.

Mercuric Cyanide in gastrointestinal injections.

- A. For children HgCn. 1|100 gr. to 1|50 gr. administered every hour or shorter intervals.
- B. For food poisoning—Meat, fish, vegetable, fruit, HgCn. 1|10 gr. every hour.
- C. In Cholera, HgCn. 1|10 gr. hourly and urgency being over reduce to T. D. S. If 1st and 2nd dose rejected drawback Stomatitis; no food or alcohol, only coffee barley water.

(To be continued in the next issue)

Ophthalmology in General Practice.

BY

S. A. RAHIM, B. A., M. B., D. O. (LONDON),
*Civil Surgeon, Osmania General Hospital,
Hyderabad, Deccan.*

THESE few notes have been written as a refresher to practitioner in treating common disorders of the eye. Only broad principles are here indicated, as a detailed description of these maladies would be only covering the same ground that has been traversed by many excellent books on Ophthalmology.

It may be remembered at the outset that in India disorders of the eye are extraordinarily common, that it falls to the lot of a general practitioner in this country to treat them much more frequently than his colleague in Europe. The writer during his stay in Great Britain visiting eye clinics there can now recall seeing only half a dozen cases of pterygium and blindness due to absolute glaucoma and staphyloma cornea, whereas here one sees daily an equal number in the Out-patient department of a

General Hospital. Here one could say with R. Kipling.

“The strangest things of Kew are the facts of Khatmandu”.

TRACHOMA:—India, Egypt, China and Persia are the homes of this disease. Its danger to the eye from an international point of view was seen in the Great War when the Chinese Labour Corps of 40,000 men with granular lids had to be quarantined in south of France for fear of infecting the army operating against Germany. For a tropical ophthalmologist it is important as it is spread over a large part of India, is infective in nature and is chronic in its course.

In the early stage it can be diagnosed by evert-ing the lids and looking for granules there. Often the disease is elusive and it is only when it has progressed and produced pannus and corneal ulcers that the doctor is consulted.

Treatment:—In the early stages brushing the everted lids with Boric acid if carried on systematically would cure the condition. For cases of moderate degree copper sulphate or silver nitrate in varying strengths is applied once a week to the lids. This is best done under cocaine anaesthesia, and cold compresses can be put over the lid if the patient is uncomfortable.

It is a good tip to remember that copper acts best if the eye is dry and silver if there is much discharge. Zambletti's cuprase argentum is a useful drug when there is a daily necessity of a local appli-

cant to the eyes. In trachomatous pannus and ulcer daily irrigation of the eyes with perchloride of mercury 1 in 3,000 combined with atropine as advocated by Col. Herbert of Bombay is a useful procedure.

HYPOPYON ULCER:—In the eye clinics of India this is fairly common. The abundance of bacteria, neglect of the rural population of this country of any accidents to the eye as the familiar prick of the Babul tree and paucity of medical relief in the villages lead to many eyes being lost before aid could reach them. There is, from the nature of infection, only hope of saving the sight if the measures are taken at the onset of the disease. Dropping atropine in the eye and bandaging it may save a few cases but majority require more active treatment. Dry the ulcer with blotting paper and apply pure carbolic acid to the surface of it with cotton on a piece of match stick. If no carbolic acid is available a metal heated to red heat applied to the ulcer acts equally well. Of course routine treatment with atropine boric fomentations and bandage to the eye should follow later.

GONORRHOEAL METASTATIC OPHTHALMIA:—Most of us are familiar with ophthalmia occurring in infants three or four days after birth which is usually due to gonococci or Koch-Weeks Bacillus. Here we are concerned with the gonorrhoeal ophthalmia of adults. One need but say that the history of the case, acuteness of the symptoms and presence of gonococci in the discharge establishes the diagnosis.

Treatment:—Early stages—Wash the eye freely with the sublimate lotion 1 in 5,000. Iced compresses inhibit the growth of gonococci. Small doses of calomel reduce the inflammation. Treatment of corneal ulcers are carried in general lines.

METASTATIC GONORRHOEAL OPHTHALMIA:—Literature on this subject is rather scanty. It is usually due to gonococci being carried to the eye through circulation. It is often seen with cessation of urethral discharge. Lately I had in my ward a middle aged man admitted for chronic conjunctivitis. He was treated in Warrangal by the doctors there for two months but there was no improvement. On examination it was found that he had pain in the knees, gleet and orchitis of the left testicle. Zinc drops to the eye and a course of seven injections of mixed gonococcal vaccine cleared his eyes and relieved him of his joint pains. As the incidence of venereal diseases especially gonorrhoea is fairly common in Hyderabad and shows a tendency to increase it would be worth while to pay more attention to these cases and reserving a few beds in the hospital for treating and isolating these from other eye cases. I may record here that St. Margaret Hospital London houses gonorrhoeal neonatarum babies and their mothers in the attempt to save eyes and prevent further risk of infection from mothers.

GLAUCOMA:—A few visits to the out-patient room of any Hospital in India would reveal to one the tragedy of blind eyes due to absolute glaucoma. As a matter of fact more people come to us blind

with glaucoma than those in which operative measures can arrest the march of the malady and restore useful sight. To these and these are by hundreds of thousands in India who have absolute glaucoma with the atrophy of the optic disc we can hold up no hope and to whom the joy and usefulness of life are past.

Madras Eye Hospital records about the incidence of glaucoma are illuminating. From 1909 to 1913 over 900 eyes were trephined for the relief of tension, which meant roughly that one eye was operated for glaucoma for every four on which extraction of cataract was performed. These things tend to show the great incidence of glaucoma in this country. Text books on the diseases of eye used largely for teaching in India barely mention what is fairly common in this country—Glaucoma secondary to cataract (inflamed cataract). This is comparatively rare in Europe but common in the East for the simple reason that patients do not resort to surgical aid so freely as in other countries. There are probably two factors in work, one early onset and the other long duration of the cataract. It is the intumescent or the swelling variety of the cataract that gives rise to increase of tension.

It is obvious that the early diagnosis is the important factor of the whole problem as it is only by early treatment by miotics and sclero-corneal trephining that the disease can be arrested. If a patient complains of a little misty sight, occasional pain in the eye and head-ache, if the pupil is slightly dilated and sluggish in reaction test for tension of the eye

which is probably raised. Remember this may be the early signal for glaucoma. Acute glaucoma with ciliary injection, cloudy cornea, dilated pupil and pain few can miss diagnosing. What is required is diagnosis of chronic non-inflammatory glaucoma. If every district surgeon keeps a tonometer and takes the tension of these border-land cases we shall be scientific in our diagnosis and save many eyes by early treatment. A tonometer is as necessary for eye work as a thermometer is indispensable for a physician. One would not think of treating typhoid, malaria or any other specific fever without a temperature chart in hospital practice and just in the same way no scientific record of glaucoma is of any value without a note of tension and field of vision.

Treatment:—In the early stages eserine, adrenalin chloride, can reduce the tension and relieve the pain. But to depend on miotics alone for treatment and cure of glaucoma is like building castles on sand. The only measure which can arrest the diseases and in many cases cure it is sclero-corneal trephining or iridectomy. The pendulum of opinion is nowadays swinging towards trephining rather than iridectomy and with some experience it is easy to perform.

Recent advances in the knowledge of Vitamins.

BY

S. RAGHAVENDER RAO, L. M. & S., (HYD.)

WE all know that 'unknown but essential constituents of food' otherwise known as vitamins are quite essential for the proper growth and development of the body and that their absence from the food is liable to cause diseases such as beri-beri, scurvy, and rickets. Indeed they have been revealed to us by the indirect means of recognising these diseased conditions first and then finding out that they are due to want of some of these vitamins in the daily food.

McCallum, Osborne and Mendel in 1913 observed that the animal fats had a remarkable influence on the growth and development of the body in contrast to the inactivity of the majority of the vegetable oils. For a long time knowledge rested at this

point and to this substance which was present in animal fats and the chemical nature of which was not known, the name of 'fat soluble A.' was given. Later E. Mellanby working on the problem of etiology of rickets showed clearly that certain food-stuffs specially animal fats greatly facilitated the deposition of the calcium salts in the developing bone. In any standard text-book on physiology we can find out that there are three recognized vitamins, one soluble in fat and the other two being soluble in water and consequently known as 'fat soluble A' and 'water soluble B. and C.' The former is supposed to be antirachitic and the latter two being anti-nue-rotic and anti-scorbutic respectively.

In the advance of the knowledge of vitamins rickets has played a very important part. With regard to the etiology of this disease there were two conflicting opinions prevalent for a long time. One school thought that it was solely due to defective hygienic surroundings especially lack of sunshine etc., while the other school was of distinct opinion that it was due to a defective diet. Later on when this fat soluble A vitamin was found in most of the animal facts, it was thought that it was the lack of this vitamin in the food that caused rickets. Until recently it was regarded that vitamin A was preventive of rickets. Lately researches of McCallum of John Hopkins University of Baltimore have demonstrated the fact that the rate of destruction of growth-promoting and anti-rachitic potencies in cod-liver-oil were destroyed at different rates by subjecting the oil to oxidation. He further found out

that certain natural food stuffs showed powerful anti-rachitic properties without any marked effect on growth. Contrary also was true in other cases. Conclusion was drawn that there were two substances at least in codliver oil and for classification purposes names of fat soluble A and D were given. The former had chiefly the effect on growth and the latter controlled the calcification process of the bones.

Most of the oils and the animal fats contain more than 99 per cent of glycerides (combination of glycerol and fatty acids) and these are easily saponified by the addition of alkalies. The rest (less than 1 per cent) is termed as unsaponifiable matter. From physiological point of view for a long time much attention was given to these saponifiable substances and their digestibility or otherwise and their nutritive value in food etc. It is very recently that much attention is being paid to the small quantities of the unsaponifiable substances present and it has been found that these substances if carefully separated and preserved from being oxidised contain the whole of these vitamins.

Again the rickets has come to help in determining the chemical nature of some of these vitamins. In 1919 Hulschinsky observed that children suffering from rickets were rapidly cured on exposure to sunlight or to the light of lamp which emit rays from the ultra-violet part of the spectrum. This rather made the problem difficult and it was rather perplexing to see that if rickets was really due to want of certain vitamins in the food, how could it be so easily cured by exposing the patient to sun-light etc.

Steenbock in America discovered that a food mixture which for want of proper vitamins in it was liable to cause rickets soon became endowed with antirachitic potency on being exposed for some time to ultra-violet rays. It was thought possible that ultra violet rays produced in the food stuffs some substances like anti-rachitic vitamins. Rosenheim and Webster in Great Britain and Steenbock and Hess in America working on this question were able to prove that lipoids such as cholesterol or a similar substance present in the plants phytosterol is really the parent substance of this anti-rachitic vitamin. They were able to obtain an extremely powerful anti-rachitic substance after exposing pure cholesterol to ultra-violet rays for an hour or two. Their researches further showed that this activated cholesterol had no effect on growth and thus had very dissimilar characteristics from vitamin A. This conclusively proved that vitamin A and vitamin D were altogether different from one another. Hess in 1925 performed the following experiments on rats which proved that in animals radiation by ultra-violet rays activates the cholesterol present in the skin and thus either prevents or actually cures rickets. Some young rats were put on diet which had no antirachitic vitamin in it and half of these were given in addition 1 grm. of powdered calf skin while the other half also had the same amount of powdered calf skin which was previously activated by exposure to ultra-violet rays. The set of rats which had untreated calf-skin developed rickets while the others were free.

Up to some time it was believed that cholesterol as mentioned above was the parent substance from which by activation through ultra-violet rays the characteristic antirachitic vitamin developed. In 1927 Windaus doubted this and in conjunction with others was able to show that chemically pure cholesterol was quite inactive in this respect and that this parent substance which gave rise to anti-rachitic vitamin was only present as an impurity. He thought that provitamin was less highly saturated than cholesterol and was probably identical with ergosterin. He obtained very favourable results by the administration of minute doses of irradiated ergosterin to rachitic rats.

As I have said before that knowledge of the etiology of certain diseases has added to our knowledge of vitamins. In Denmark it was shown that in the years 1909-20 that large number of cases of xerophthalmia in children and few in the adults were chiefly due to lack of vitamin A in the diet. This was explained by the fact that the nursing mothers used largely vegetable margarine and the children were given a diet poor in vitamin A such as skimmed milk, butter milk, barley gruel etc. During the year 1919 and the beginning of 1920 no margarine was manufactured and butter was chiefly used by the people and the number of the xerophthalmia cases fell to a very low level. Again they increased when the vegetable margarine was reintroduced.

We are all well aware of the fact that the diseases beri-beri and scurvy are caused by the water

Most of us might have also seen the marvellous way in which these diseases yield to a diet particularly rich in the respective vitamins.

Recently Prof. H. E. Evans of California has proved the existence of a third vitamin of the fat soluble class. He thinks that this vitamin plays an extremely important role in the process of reproduction. J. C. Drummond has confirmed this fact by experiments in his laboratory. Much is not known about this vitamin beyond the fact that it is very stable, it can be distilled safely in superheated steam and that it is not destroyed by either acid or alkali. Like other fat soluble vitamins it is found in the unsaponifiable portion of the oils chiefly of the vegetable ones.

The table appearing on the next page will show at a glance the various vitamins known till now with their nature and the varieties of dietetic articles in which they are chiefly found together with the diseases they are liable to give rise to by their absence in the diet.

Vitamin	Fat or water soluble	Food-stuffs in which they are found	Diseases caused by their want in the diet.
Vitamin A.	Fat soluble	Animal fats Cod liver oil Fish Milk Eggs.	Defective growth. Xerophthalmia or Xerosis
"	Water Soluble	Wheat embryo Rice, Maize, Lentils, peas Walnuts	Neuritis, Beri-beri
"	"	Cabbage Potato Lemon Juice Orange juice Tomato	Scurvy
"	Fat Soluble	Same as in A also skin of the animals Wheat germ oil Lettuce Peas	Rickets Sterility

further delay and remedy the long standing evil from public health point of view.

M. ASHRAFF,
Major, M. B. Ch. R.,
Offg. Director.

Clinical Notes

NO. 1.

A CASE OF NERVOUS DISEASE.

(*Lesion in Corpus Striatum and Pyramidal tract*).

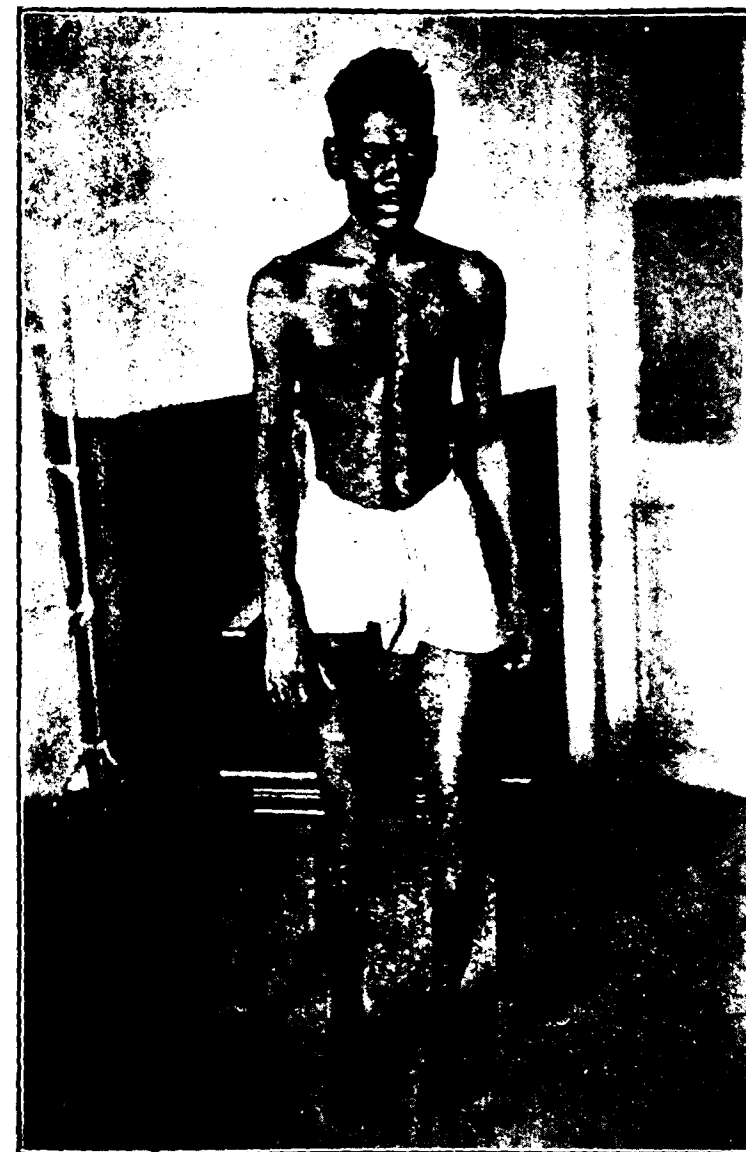
BY

V. R. GORAKSHAKAR, B. A., M. B., CH. B. (EDIN.)

PATIENT, A. B., was admitted in the ward for tremors in limbs. He is 25 years old: has a child and is a clerk by occupation. Four years back he had fever with sweating. He went out while perspiring and soon after found difficulty in walking. Then he found it difficult to form a morsel of food and take it to the mouth. A year ago his speech was affected. He had no gonorrhoea and no syphilis. He is not addicted to alcohol.

The following signs and symptoms relating to Paralysis Agitans are found in this case:—

1. He has a stare. Blinking is absent.
2. Parkinsonian mask is present.
3. Propulsion and retropulsion are present.
In looking up he loses balance.
4. His arms are abducted and bent at elbows.



A case of nervous disease (to face page 137)
Note the Parkinsonian mask and general rigidity.

5. Slight tremors are sometimes present in hands.
6. General rigidity is present. He can get up, get out of bed and turn round only slowly on account of the rigidity.
7. Speech:—It is monotonous; begins after hesitation, then hurriedly pronounces words. Slurring at end owing to haste in completing sentences.
8. Swinging of arm in walking is lost.
9. Can take fingers to nose with eyes shut quickly, but gripping of the hands is done slowly and with difficulty. Thus rapid movements are done with ease while slow movements are done with difficulty.

Other signs and symptoms found are:—

1. Vision was affected when he had fever. Normal at present.
2. He had fever. (Could it be Encephalitis Lethargica?)
3. Cannot close right eye so well as left. Twitchings in that eye are present. It is difficult to say which side is paralysed, right or left. Some little paralysis is present.
4. Knee jerks are much exaggerated. Ankle Clonus is present. No sensory phenomena present.

5. Dragging of toes is complained of. Toes are extended, ankles extended. Movements of flexion, extension are present but slow.
6. No pillrolling movement is present. Tremors are not extensive.
7. Co-ordination is present but cannot form a morsel of rice and so fine co-ordination is lost.

DISCUSSION.

In discussing this case we must note the following points : the Corpus Striatum consisting of the Caudate Nucleus and the Lenticular Nucleus is an important infracortical centre the predominant function of which is motor or efferent. It consists of two cellular systems. The large ganglion cells of Palladian system in Globus Pallidus—associated and emotional movements are concerned with this. Affection of this causes the tremors of paralysis agitans. The other system consists of small cells of caudate nucleus and putamen. Its function is inhibitory on palladian system and co-ordination. Lesion of this causes choreic and athetoid movements.

Affection of globus pallidus (the inner 2/3 of Len. Nucleus) causes rhythmic tremors as in paralysis agitans, hypertonicity of muscles, automatic (blinking of eyes) and automatic associated movements (swing of hands while walking) are disturbed.

Affection of caudate N. and Putamen (the outer 1/3 of L. Neuc.) causes choreic and athetoid move-

ments. Inhibitory influence on the palladian system is disturbed and also co-ordination.

In lesions of cortico-spinal path we have complete paralysis. Not such total loss of power in striato-spinal lesions. Voluntary movements in latter may be impeded by tremors, rigidity, athetoid movements, but they are not lost. Both cortico-spinal and striato-spinal systems have control on muscular tonus. So lesion of either gives increase of muscular tonus along with the paralysis. Thus in Hemiplegia where pyramidal tract is affected the extra-pyramidal (striato-spinal) is not opposed and we get tonic rigidity, especially of extensors of lower limbs with characteristic posture. In Pallidal lesion (as in progressive Lent. degeneration and in paralysis agitans) we get rigidity of voluntary muscles but no changes in reflexes which are so characteristic of pyramidal lesion.

From the symptoms given above we may conclude that in this case we have an affection of both the pyramidal as well as the striato-spinal systems, caused probably by the fever which he has had and which fever may have been of the nature of encephalitis lethargica. Patient is under treatment and Potassium Iodide and Elec. Massage appear to be doing him good.

NO. 2.

Abscess of the Lung, following Puerperal Septicemia.

BY

CAPT. K. N. WAGHREY, M. B. B. S.

The case is recorded as it is rather a rare instance of the sequence of events in puerperal sepsis.

Patient a young lady of 17 previously in very good health, married two years ago. Family history so far as the case is concerned clear, had a full time normal confinement. Had a little temperature about three days before confinement, which left her after a purge. Third day of the confinement pt. got a rise of temp. to 100, which kept on to between 100 and 101 for about four days. The attending Dai said that the placenta was entire and local condition of parts and the discharges normal. Temp. did not yield to the usual Ergot and Quinine treatment. It kept slowly rising. Douchings and attention to bowels brought the temp. down to vary between 99 and 100.4. Assistance of a lady doctor was requisitioned and her report showed that there was a small piece of placenta left behind and the os was open. The piece was removed and a hot intrauterine douch given. That day the temp. shot up to 106 with a fit of rigor. This was only anticipated after the interference done. In two or three days time the temp. gradually came down to and stuck to Normal for about four days. Then again rigors and sharp rises of temp. to 105 or thereabouts so typical of septicemia started. Anti streptococcic Serum, Iodine etc. proved to be of no avail. This state of affairs lasted about five or six days and then the patient was found to have

an acute generalised Bronchitis on the right side, where she had been complaining of pain from the third day of the appearance of these septicemic signs. This condition soon took the form of a broncho-pneumonia and was taken as a septic pneumonia. But there was one thing very striking about the case that while the pt. kept a temp. of a 105 constantly and a pulse rate of 145 to 150 her respiration rate had not even correspondingly increased. Along with this there was a distinctly noticeable foul stink about the patient for no accountable reason. Suspicion of an abscess in the lung was roused. Auscultation revealed bronchitic signs over the whole of the right lung and loss of air entry over a big patch corresponding to the middle and upper part or lower lobe of the right lung. Percussion elicited a dullness over the same region.

The vexed question of diagnosis having been cleared the treatment question was even more vexing. Surgery was out of question, both from her general condition point of view as well as from the results recorded after such heroic attempts. Left to the mercies of nature, it was thought prudent to get an auto-vaccine made and give a trial. The auto vaccine was made (consisting of Bac. Pnemo. pneumococcus streptococcus and Staphylococcus). On one occasion about the time that the autovaccine was being used it seems Nature did help us by the abscess bursting into a Bronchus and discharging itself in the shape of a violent attack of prolonged coughing out of stinky pus like sputum. Ever since the use of vaccine the temp. has been steadily going down

till it has come to stay at 99 and 100. The local signs in the lung are very much improved, the vesicular murmur is more audible and the dullness has become much limited down to a smaller area. Pulse is still sticking at 126, cough is less troublesome and the stink in the expectoration is decidedly absent. Three days ago her temp. again rose to 102 and she developed left "white leg". The leg is doing the usual way and the temp. has again come down to 100 and 99 as before. It is to be hoped the case is well on the lines of a recovery.

To sum up:—

Etiology. Primary abscess of the lung is rare. Secondary abscesses of the lung may occur in any septic train of events, or as a result of foreign bodies getting into the lung.

Signs and symptoms:—Pyrexia, of a septic type generally. Early pleuritic pain over the site of the future abscess. Generally signs of the preceding and accompanying septic condition, dullness over the area, if connected with a bronchus the usual sign of a consolidated patch of lung, if not the usual signs of a cavity provided the contents are not too fluid or a mere diminution of the vocal fremitus and esonance with a large surrounding area of congestion showing fine bubbling rales. The cough is generally unproductive in the beginning, unless the abscess bursts into a bronchus and a free abundant expectoration of pussy material comes out. A noneffective cough and great stink are more in favour of a gangrene than an abscess. The surest way of diagnosis is by the X rays.

Prognosis Grave undoubtedly. Mortality is said to be somewhere about 75%

Treatment : Surgical treatment by drainage of the abscess should be and is said to be successful provided the costal and parietal pleura over the abscess cavity are adherent, otherwise a persistent sinus leading on to various complications may be left behind.

Medical treatment is only Expectant and supporting. Vaccine therapy especially where general condition of patient and local circumstance do not permit of surgical interference with safety, is quite worth a good trial.

Complications and sequelae and termination:—The case may end in spontaneous resolution after a natural bursting open of the abscess into the bronchus. It may go on to a chronic abscess or gangrene. Secondary abscesses of the brain, purulent pericarditis, haemoptysis may occur.

Abstracts

RELATION OF PREGNANCY TO CARDIAC DISEASE

BY

J. M. MUNRO KERR, M. D.,

Regius Professor of Midwifery, Glasgow University.

(British Medical Journal, August 13, 1927, P. 245).

PROF. Kerr approaching the subject said that considering the large number of investigators who have interested themselves in cardiology one would have thought by this time definite decisions would have been reached with regard to the effect of pregnancy upon the anatomy and physiology of the healthy heart. It was not certain whether there was real hypertrophy of the left ventricle or not during pregnancy. Sir Thomas Oliver wrote that on the whole the consensus of medical opinion was that in pregnancy there was a slight increase in the size and the weight of the heart and

that his own experience confirmed it. Sir James Mackenzie wrote that the assumption that the heart hypertrophies during pregnancy is not justified and that all this additional work is met by a call upon the reserve force. The experience of Jensen and Norgard shows that cardiac hypertrophy is of normal occurrence during pregnancy and that it is associated with dilation of the heart in about 60 per cent cases.

In normal pregnancy there is no increase of blood pressure. A distinct rise or fall of blood pressure in pregnant women is a danger signal. The functional disturbances which may occur are palpitation, tachycardia, slight cardiac irregularities, dyspnoea on exertion, soft blowing murmurs on the pulmonic area, and accentuation of the second sound. Some of these are undoubtedly caused by mechanical disturbances while the others are caused by disturbed innervation, alterations in metabolism; and overactivity in the endocrine glands more especially the thyroid. With regard to the organic diseases of the heart—lesions associated with murmurs and irregularities of cardiac force and rhythm—the cardiologists have taught us that it is the condition of the heart muscle that determines the seriousness of the lesion. But in pregnancy the problem is complicated by the fact that it is associated with insidious metabolic disturbances and overactivities in ductless glands, all of which may play a part in aggravating a tendency to decompensation.

In the Royal Maternity Hospital Glasgow, in the year 1926, 56 cardiac cases were admitted (1.6

percent of the total admissions). Of these 7 died in the wards and 51 were discharged alive. The youngest of these 7 fatal cases was aged 27 and the eldest was 44, and the mean age being 33.2 years. The parity of the fatal cases ranged from 3 to 9, with a mean of 4.6 pregnancies. All these fatal cases were suffering from mitral disease. The author says that all evidence indicates a general tendency to earlier and more pronounced decompensation with each succeeding pregnancy. According to Mackenzie evidences of heart failure are to be found not in the examination of the organ, but in the manner in which the circulation is maintained in the different organs of the body. Duskiness of the face, slight increase in the respirations, occasional crepitation in the base of the lungs, and breathlessness on slight exertion, are often more important indications than occasional cardiac irregularity that the heart is finding the strain too great. At this stage with careful dieting and nursing etc., the pregnancy, labour, and puerperium can be safely negotiated. Prognosis is rather grave when cyanosis, edema, and albuminuria are present.

Cases of Aortic regurgitation are not very common in pregnancy. But with good compensation, the author has seen several cases pass through pregnancy and labour with comparatively little disturbance. But in his opinion it is better to terminate pregnancy even if moderate effort produces any distress. For with aortic regurgitation, once distinct decompensation develops it is impossible to arrest the progress downhill.

In mitral regurgitation if the condition of the cardiac muscle is good prognosis is favourable both as regards the pregnancy and labour. (In the statistics quoted for the Glasgow Maternity Hospital there was only one death in the total of 17 cases.)

Mitral stenosis is the most serious of all the cardiac lesions and one which is difficult to gauge, the Glasgow Maternity Hospital's showing a mortality of 24.5 per cent. The condition is still more grave if it is marked with cardiac irregularities breathlessness on least exertion, crepitation at the base of the lungs and especially if these are not relieved by simple treatment.

Treatment:—While in a considerable number of cases the damaged heart is able to stand the strain of pregnancy to a considerable extent and no obstetrical treatment except the shortening of the second stage by forceps delivery is necessary, there are undoubtedly many exceptions. In every case the physician and the obstetrician must co-operate. If the ordinary medical treatment has failed or proved inadequate, and if the symptoms indicate that the pregnancy should be terminated every care should be taken in selecting the method by which the results can be obtained giving the least amount of shock to the patient. Termination of pregnancy if once decided upon should not be too long delayed. In the early months if the induction of labour is decided, it necessitates dilating the cervix prior to removal of the ovum. If the dilation or stretching is done rapidly it has a very depressive effect on the heart. This is not desirable in the case of an al-

ready damaged heart. If to avoid this the gradual method by tents is adopted, the time is lost and also it is not free from the risk of septic infection and moreover though it may be done in a multipara without the administration of the anaesthetic it is not possible to do so in a primipara. The author says that he has long been convinced that in such a case, where the uterus is to be emptied in the early months, vaginal hysterectomy (vaginal Caesarean section) should be employed. He says that it is a comparatively simple operation, can be performed in 10 or 15 minutes, at one sitting and is attended with little shock.

Again in terminating the pregnancy in later months the old methods of inducing the labour either by bougies or rupture of membranes, though easy in a multipara require dilation of cervix at least in the former method. In any case there is no guarantee that one or two days may not elapse before the labour starts. If these methods are employed the patient already in a critical condition is faced with nervous tension of waiting for the labour to start, and then the strain of labour itself. The author recommends Caesarean section in such cases and says that in six cases of his treated by this method there were no deaths and quotes similar favourable results from Lennie's statistics (Glasgow Maternity Hospital). Some of the worse cases admitted to the hospital were treated with this surgical method. There is one peculiar advantage for the abdominal Caesarean section for this condition. It enables the operator to sterilize the patient at the same time by excising the portion of the tubes.

As regards the cases in which the labour comes on spontaneously, termination is satisfactory in many of them if left alone. But it is better to shorten the second stage by forceps delivery. Again in primipara the forceps delivery is attended with distinct shock, as the child has to be dragged through the vagina not previously dilated. Here also Caesarean section can be better procedure to employ.

At the conclusion of the paper he refers to the fatalities occurring in the puerperium in cardiac cases. In such cases the pregnancy and labour are satisfactorily tided over, and all seems well after the delivery and on the following day. Then suddenly the failing compensation sets in and nothing can be done to save the patient. This may be due to either the degeneration of the hypertrophied muscular fibres or absorption from the decidual debris in the uterus. Therefore the patients suffering from the cardiac disease must receive special attention during the puerperium.

RAW PANCREAS IN SPRUE.

(Journal of Tropical Medicine and Hygiene,
P. 230, June 15, 1925.)

A. Castellani advocates administration of raw pancreas in typical cases of sprue with copious white motions and sore mouth. In his experience in three cases complicated by typical diabetes, insulin caused glycosuria to disappear but it had no effect on the sprue symptoms. Raw pancreas given in two of the above cases benefited the sprue symptoms but

had no effect on glycosuria. In cases of sprue complicated with diabetes he recommends subcutaneous injections of insulin along with the administration of raw pancreas by the mouth. He further says that Scott's treatment by parathyroid and calcium lactate may be tried along with the administration of raw pancreas.

THE CERVIX UTERI AS A SOURCE OF INFECTION.

E. Hoenig writing in the Medical Journal and Record (New York) of Sept. 21, 1927, states that chronic endocervicitis is an extremely common condition, being present in more than half of the women who have given birth to children. Want of proper attention to this condition has been the cause of several diseases in women. He insists that the practitioners should always be on the look out for this condition. Chronic endocervicitis is a great source of pelvic inflammation; it may cause sterility. It generally acts as a septic focus and is responsible for several systematic disturbances. He further states that its continued existence predisposes to the later development of cancer. The most common cause of this affection is gonorrhoea but many other organisms are also liable to cause it. The childbirth with its attendant tears etc. is the greatest predisposing cause. The best treatment in the opinion of Dr. Hoenig is the surgical removal of entire disease-bearing focus by Sturmdorf's operation; the entire endo-cervical mucosa from the external to the internal os is enucleated, and the denuded cervical canal is accurately relined by a cylindrical cuff of its vaginal sheath.

PROTEIN TEST FOR THE UREA FORMATION: FUNCTION OF THE LIVER.

(Archives of Internal Medicine, 39 : 787, June 15, 1927.)

Philip Cohen and S. J. Levin describe a new test for liver function based on the normal conversion of amino-acids to urea by liver. Ordinarily after a protein meal (1 gm. per kilogram of weight) the blood urea will increase as the blood sugar does after a glucose meal. The rate of increase is from 50 to 70 per cent above the fasting level in 4 hours. When liver is not functioning properly, this increase of blood urea after a protein meal is diminished, usually below 50 per cent and some times no increase is noted at all in 4 hours. This test has been corroborated by other tests for sub-normal function of liver. Naturally when the liver regains its healthy condition there is the corresponding increase in the blood urea after a protein meal.

AUTOBLOOD THERAPY IN GONORRHOEAL EPIDIDYMITIS.

(Wiener Klinische Wochenschrift, 40 : 1384-1387 November 3, 1927.)

Michael Scherman, writing in the above journal, says that seeing the severe reactions produced by the use of vaccine and other modes of treatment he gave a thorough test to the efficacy of auto-blood injection. He treated 24 cases during the course of the year. 3 c. c. of blood was withdrawn from the cubital vein and was injected immediately intramuscularly. The dose was increased by one c.c. every other day till a dose of 7 c. c. was reached.

our injections were ordinarily sufficient. Condition of the urine improved after the second injection and the general condition after the third one. The results varied according to the duration of the disease and when this was of less than a week, the first injection of 3 c. c. was well tolerated, the urine clearing within 24 hours. After the second injection the swelling and the pain of the epididymis increased accompanied with a rise of temperature (102). However after the third injection the condition markedly improved; pain and swelling subsided rapidly and finally a continued treatment of 5 days generally brought about a cure or at least a great amount of relief. In cases where the disease was of a longer duration, no such stronger reaction was noted, but the disease gradually but surely improved in the same way as it did in the former case. The author explains the difference in reaction in the above two cases on the principle of 'negative phase' and recommends that in cases of fresh epididymitis the period between the first and second injections should be long enough to prevent severe reactions. Being encouraged by the satisfactory results, he tried it in other gonorrhoeal complications such as acute prostatitis, strangury, terminal haematuria, and arthritis of the knee joint and obtained improvement of the condition as well as relief to the patients.

—*International Medical Digest.*

STAINLESS IODINE OINTMENT.

Mr. W. P. McEwen in a paper read by him before the Australian Pharmaceutical Conference

gave the following formula for the preparation of stainless iodine ointment.

Iodine in powder	$\frac{1}{2}$ ounce.
Oleic acid	1 ounce.
Soft paraffin	11 ounces.

Mix iodine and oleic acid and heat gently with stirring on a water bath. After the combination takes place add paraffin, stir, and allow the ointment to cool. Lanoline may be used instead of paraffin.

Deccan Medical Journal April 1928.

DYSENTERY IN HYDERABAD.

DURING the last few months two discussions were held on this subject in Hyderabad—one at a meeting of the Hyderabad Medical Association in the Osmania Hospital and the other at a meeting of the British Medical Association in the King Edward Memorial Hospital. On the former occasion Capt. Wats of the I. M. S. opened the discourse a summary of which has been given in the last issue of this Journal. On the latter occasion Major Walker of the R. A. M. C. discussed the question of diagnosis between Amoebic and Bacillary Dysentery. According to both these officers, Bacillary Dysentery appears to be more in evidence in the Army than Dysentery of the Amoebic type.

The statistics of the General Hospital of Hyderabad would seem to show that the Amoebic variety is more in evidence in the Civil population of Hyderabad. This conclusion is based on the fact that Emetine treatment has been beneficial in a large

proportion of these cases. In applying this test we have the support of the writings of Sir Leonard Rogers. Another test suggested by the same authority is that of the ratio between the number of cases of Dysentery and that of cases of Liver Abscess. Sir Leonard Rogers considers the ratio of 6 : 1 sufficient to assume the prevalence of the Amoebic type. Our statistics give a ratio of 2 : 1 and we may therefore safely conclude that the Amoebic type predominates in the Civil population of Hyderabad. Seeing, however, that the results obtained by the workers in the Army differ from the statistics of the large General Hospital of Hyderabad it is very essential to give more attention to the bacteriological diagnostic methods, and to carefully record the findings.

Reaction to litmus of the Dysenteric stool is suggested as a diagnostic sign. The amoebic stool is acid—the bacillary alkaline. This, however, is of value only when the specimen of the stool is examined in the very early stage. The test though simple is not quite reliable.

The agglutinative test even is not supposed to be quite reliable and it is of value only one or two weeks after the commencement of the disease.

Sir Leonard Rogers points out that a high leucocytic count is in favour of the amoebic type. A count of more than 20,000 is almost diagnostic of amoebic as against bacillary dysentery.

Bacteriological examination is very difficult and requires time but this must be done.

An abundant cellular exudate in the stool with macrophages and a preponderance of polymorpho-nuclears is characteristic of bacillary dysentery.

Clinical signs and symptoms are well known and are often of great diagnostic value along with the laboratory findings.

Much has been said about the unwarranted use of Emetine. It is true Emetine is a depressant drug but the quantity actually used is very small. Sir Leonard Rogers suggests much larger quantities than what are used by the local medical men. If no benefit is obtained after 3 days the drug may be discontinued and the quantity that is likely to be used during the period of these 3 days being not more than 3 Grs.—it is often less—no bad effects are likely to be met with. Accepting the view of Sir Leonard Rogers we would suggest that in every case where we are doubtful and where bacteriological findings are not easily and quickly available Emetine treatment should be started. The saline treatment is of course of value in those cases where we have no doubt about their bacillary nature.

Post Graduate Notes

CARDIAC ARRHYTHMIAS (*Contd.*)

HEART BLOCK.

NORMALLY the stimulus to contraction from the S. A. Node is regularly transmitted from the auricle to the ventricle along the bundle of His.

A delay in this transmission causes auricle-ventricular dissociation of the first degree—a tendency to heart-block. If transmission is interrupted occasionally some of the auricular systoles do not reach the ventricle-suppression of some of the ventricular contractions occurs—we get incomplete or partial Heart Block. Complete Heart Block we get when all conduction between auricle and ventricle is arrested. Auricles and ventricles contract independently. There is bradycardia due to this dissociation between auricles and ventricles. Bundle of His. is the seat of affection. Syphilis, Rheumatism, and connective tissue degenerations are the causative factors. We have functional block due to loose administration of Digitalis. Transient block may occur during Rheumatic fever or erysipelas. Organic block is due to sclerosis of bundle of His.

Suggestive signs and symptoms are:

Slow pulse 50 or less.

Sudden drop in pulse rate during acute infection.

Stokes-Adams syndrome (permanently slow pulse with syncopal attacks).

Gallop rhythm, reduplication of the heart sounds and actual dropped beats at the wrist. Care should be taken not to confuse a dropped beat with a premature contraction.

Graphic records will give positive proof of heart block.

Treatment:—

In low grade blocks due to sinoauricular block curtail physical activities. Digitalis should not be used.

In toxic blocks Epinephrin 1/65 gr. subcutaneously gives good results.

In high grade block (complete heart block and bundle branch block) atropine 1/100 gr. does good.

If complete block exists Digitalis cannot do further harm but can help by its action on cardiac muscle. Don't use Digitalis if Stokes Adams Syndrome is present.

In our next issue we propose to deal with this subject more in detail.

Association Notes

ON 23rd March 1928 a general meeting of the Association was held in the Osmania General Hospital at 5 p. m. Besides several interesting clinical cases, there were a lot of pathological specimens shown by Dr. R. N. Coorlawala at the meeting. There was a specimen of multiple calculi numbering about 50 all of the size of a big pea and it was told that there were innumerable other vesical calculi in the same case of too small a size to be preserved. The interesting fact about these calculi was that though they were multiple, they were not faceted. Probably they were moving all the while in the bladder and hence acquired the round shape noted. The other specimens showed included, sarcoma of the testis of a large size, elephantiasis of the scrotum the skin of which was partly leucodermic, multiple fibroids of the uterus etc.

The clinical cases showed included two nervous cases described below in detail, a case of right heart failure which improved well on digitalis treatment, a case of gastric ulcer operated once in the Madras General Hospital and operated for the second time by Dr. R. N. Coorlawala in Osmania General Hospital for the recurrence of symptoms and is now

improving satisfactorily, fracture of patella operated and some other cases.

The discussion centred round the first mentioned two nervous cases, one of which was shown by Dr. V. R. Gorakshakar, and the other by Dr. S. W. Hardikar, who opening the discussion gave the following history of his case.

Abdul Rahman Khan, aged 12 years, was admitted into the children's ward of the Osmania General Hospital for awkwardness in movements and inability to move the right arm upwards and forwards. Duration was said to be five years. Mother cannot say definitely when and how the complaint began. The boy was normal in infancy. About five years ago she first noticed the awkward movements in the boy's right arm and his difficulty in picking up objects. The speech was also affected, being slow and lalling.

At present when asked to raise the arm (right) forwards, the forearm is extended and pronated, the limb is first carried backward as in the attitude of a waiter receiving tips; it is then brought forwards but has to be helped into the horizontal position with the other hand. There are gross lateral movements of the fingers and of the neck at the same time; the mouth is also open and the tongue protruded very often. There is a certain amount of jerkiness in the movements of the left arm also. There is a slight ankle drop on the right side and the right leg is carried forward in a semi-circle while walking. The intelligence of the patient is normal. There is no

definite paralysis of any of the muscles. There is a positive Babinski but other reflexes appear normal.

Major Ashraff, Dr. H. J. Chinoy, Dr. Latif Sayeed and Major Naidu took part in the discussion. Major Naidu said that he also studied the case and found much difficulty in eliciting the history from either of his ignorant parents. With greatest difficulty he was able to get the following history. Patient's power of speech was not at all developed till the end of his third year. At the beginning of the fourth year the parents first noticed the abnormal movements of the arm etc., which the mother attributed to some "sa yah" (possession by an evil spirit). As per mother's statement the condition was growing worse. He said that he also noticed the athetosis of the right hand and to a certain extent of the left also, and the patient's characteristic gait (cross legged). He asked the two usual questions—where is the lesion and what is the lesion? Continuing the discussion he said that it might be presumed from the history and the progress that the affection was congenital and that the lesion was central. Movements affected more or less the whole body. Assuming that the lesion was central the next question was whether it was cortical or deeper. He agreed with Dr. Hardikar that there was no actual paralysis but he thought that there was some paresis. There were no sensory disturbances. Finer movements of the fingers as in writing were normal. But once he removed the hand from his table same abnormal movements of the arm and fore-arm occurred. He thought that it was a case

of cerebral diplegia. Though this condition is generally due to some birth palsy it may not be always so and non-development of some area of the brain as well may cause the same condition. An inflammatory lesion of the cortex or sub-cortex may ultimately give rise to same signs and symptoms. It was in a way a form of double hemiplegia. Dr. Naidu further said he worked on the case chiefly from the point of view of athetosis and the cause of this was very uncertain. In children athetosis is generally due to hemiplegia. Prognosis in his opinion was not good. Dr. R. N. Coorlawala said that speaking broadly such lesions were either traumatic, congenital, or infective, and in the particular case under discussion and from the history available the former two could be excluded. If it was the latter it must have been due to either encephalitis or acute anterior polio-myelitis. He thought that it was worth while to make a thorough examination of the cerebro-spinal fluid. Dr. Hardikar while replying to the discussion said that his chief aim was to find out whether the lesion was at present quiescent or progressive, whether there was total or partial destruction of the cerebral area or cells concerned. In case of the lesion being originally inflammatory it must have been quiescent now and the prognosis was not so bad as Dr. Naidu thought and it might be even hopeful. He thought that the re-education of the muscles might do the patient some good.

R. RAO.

The adjourned General meeting of the Association was held in the Osmania General Hospital on

Friday the 6th April 1928, when Dr. R. N. Coorlawala, F. R. C. S. (Eng.), read his paper about the Far Eastern Tropical Congress. The paper is being published in this Journal.

After the reading of the paper the following business was gone through at the meeting.

It was resolved that the accounts of the Association be changed from Fasli year to A. D. This step was taken to avoid confusion. Till now business in connection with the Journal of the Association was being carried on according to the A. D. year while the subscriptions etc. from the members were being collected according to the Fasli year.

The Committee's recommendation to hold the next election of the office bearers in January 1929, was unanimously agreed to.

The third resolution put by the Hon. Secretary on behalf of the committee to include an Assistant or a Sub-Assistant Surgeon in the managing committee was discussed.

Dr. Coorlawala and Dr. S. A. Rahim strongly supported the resolution and were of opinion that by including an Assistant or a Sub-Assistant Surgeon in the Committee a greater amount of interest would be taken by that particular class in the affairs of the Association. Major M. G. Naidu and Dr. S. W. Hardikar opposed the resolution. Assistant and Sub-Assistant Surgeons present in the meeting were strongly against the resolution. The consensus of opinion was that according to the existing rules of

the Association nothing prevented an Assistant or a Sub-Assistant Surgeon from being elected to any of the offices of the Association, and as such the present innovation was superfluous. Further they said that they did not desire any thing like class representation. The resolution was put to vote and lost by 14 votes against 9.

R. RAO.

News

Major Khaja Moinuddin, M. D., Director, Medical and Sanitation Depts., has proceeded on six months' leave to Haj and Major Ashraff M. B., Ch. B., will be officiating as the Director.

Major Inayet Ali Khan, M. B., Ch. B., Civil Surgeon, Osmania General Hospital, has been granted six months' leave to proceed to Haj.

Khutubuddin, L. M. & S., Officiating Civil Surgeon, Nizamabad, has been granted six months' leave for proceeding to Haj.

Khazi Ahmed, L. M. & S., has been posted as Officiating Civil Surgeon, Nizamabad, for six months.

Narsimlloo, L. M. P., has been posted as the officiating M. O. in charge of Musheerabad Dispensary vice Khazi Ahmed, L. M. & S.

The transfers of Namasivayam, L. M. & S., Muzaffar Hussain, L. M. & S., and Assistant Surgeon M. V. Rajanna reported in the last issue of this Journal have been cancelled.

C. G. Keskar, L. M. P., Sub-assistant Surgeon (Leave reserve) has been posted as M. O. in charge of Ambad Dispensary:

V. Raghavender Rao Kulkarni, L. M. P. has been appointed temporarily as a Sub-assistant Surgeon (Leave reserve) and posted to Aurangabad.

Ajit Kumar Ghosh, L. M. & S., M. O., Kalwakurti, has been posted to the Civil Hospital, Chaderghat.

Jagannath Rao, L.M.P., Sub-assistant Surgeon, (leave reserve) has been posted as M. O. in charge of Kalwakurti Dispensary.

Harigopaul Modaliar, L. M. & S., has been transferred from Civil Hospital, Chaderghat to Osmania General Hospital.

Gabriel, L. M. P., has been posted as M. O. in charge of Odgir Dispensary vice Narhar Madhav Rao, L. M. P., who is transferred to Osmania General Hospital

Dhruva Rao, L. M. P., District Sanitary Assistant Beed, has been posted as M. O. in charge of Andola Dispensary.

C. Masicharan, L. M. S., has been posted as District Sanitary Assistant Beed.

* * *

The following Medical Officers have passed the grade examination held in the month of Ardibehisht 1337 Fasli.

Gulam Ghouse, L. M. & S.

Govind Triambak, L. M. & S.

K. D. Joshi, L. M. P.

Syed Mohiuddeen, L. M. P.

Gurulingam, L. M. P.

M. Sanjeevarao, L. M. P.

Damodar Balkrishna Lele, L. M. P.

OSMANIA MEDICAL COLLEGE.

The following students have passed the final Board Examinations held in the month of April 1928:—

L. M. & S. (Hyd.).

Mohamed Abdul Ali Khan.

Minepure Bhagawan Yuvaraj Singh.

Ravoori Devadassen Krupadanam.

Belgaum Setu Rao.

Tukaram Prahlad Barshikar.

Hastings Ernest Adams.

Ramakrinsha Dhondur Joshi.

Samala Ramakrishna Reddy.

Nilkantha Vithal Kulkarni.

Arcot B. Srinivas Modaliar.

Thonangi Bhaskar Rao.

Bodapati Lakshminarasimha Rao.

Ganchi Narasimlu Naidu.

Mahomed Abdul Sattar.

G. Sultan Shariff.

Rungaswamy Naidu Numperumal.

Mrs. Lily Narayen Reddy.

Athipakam Natesan Pillay.
 Namalikanti Venkatakrishna Rao.
 L. M. P. (Hyd.).
 Miss Bridget Taylor.
 Mrs. Daisy Ilma Clarke.
 Miss. Hephzibah Sebia Grace Ephraim.
 Mrs. Hannah David Charles.
 Kishen Mahadeo Humnabadkar.
 Kurial Nudubalki Thimmappa Kamble.
 Kona Brahmanada Rao.
 Gudiboyana Samuel Sudersanam.
 Ramchandra Ganesh Garood.
 Kundadka Kantappa Rai.
 Panganamamula Lakshminarayana Rao.
 Tanjore Yogendra Narayen Rao.

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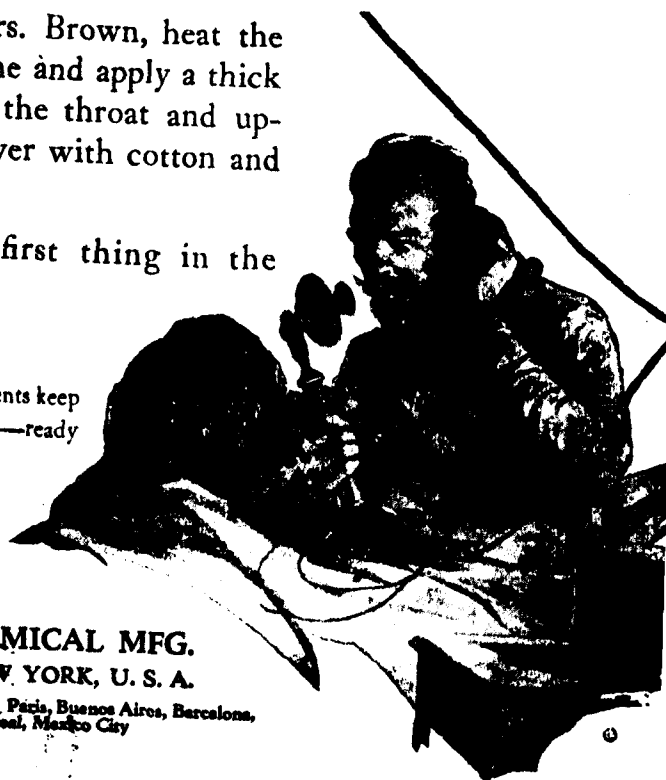
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gauze.

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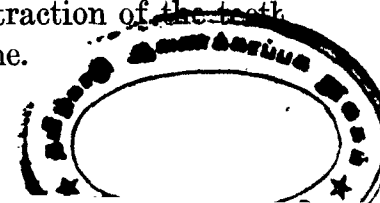
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TREATMENT OF SCIATICA.

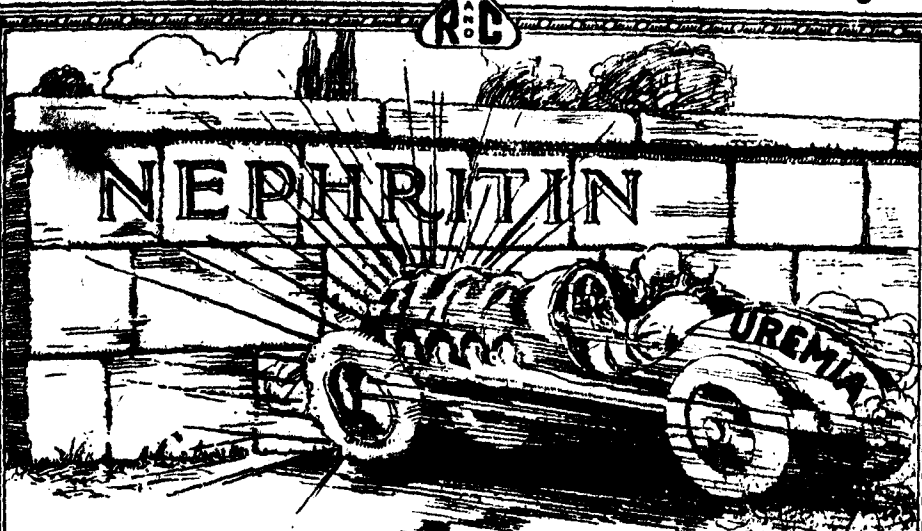
The term sciatica denotes an inflammation of the interstitial tissue of the sciatic nerve or its roots. J. P. Martin, M. D., M. R. C. P., writing in the "Lancet" indicates four or five methods which may give early and rapid relief, if not complete cure, the choice depending on the severity and on the stage of the ailment. These are: (a) electrical methods (b) use of oxygen (c) Injection of saline (d) epidural injection of antipyrin (e) Surgical methods. With all of these methods, the general principles which govern the treatment of inflammatory conditions must be practised.

The patient must be kept at rest in bed and heat in some form should be applied to the affected limb. John H. Anderson, M. D., C. M. G. (Lancet, April, 1927) maintains that in this condition "heat is always grateful, either as a poultice, hot bricks or sandbags, radiant bottle." In view of the fact that its active ingredients are readily absorbed, ANTI-PHLOGISTINE has a favourable effect on the inflammation in the fibrous tissues, and by penetrating among them and loosening them it separates small inflamed surfaces and breaks down many minute adhesions.

As for the general treatment, in the early stage the first essential is, with the aid of simple hypnotics, to secure sufficient sleep for the patient, in order that he may not become exhausted. As soon as the acute phase has subsided the patient should have a general tonic. Debilitating factors such as infective foci, glycosuria or albuminuria should be sought for and constipation carefully treated. If the patient has pyorrhea the extraction of the teeth is to be recommended at this time.



NEPHRITIN



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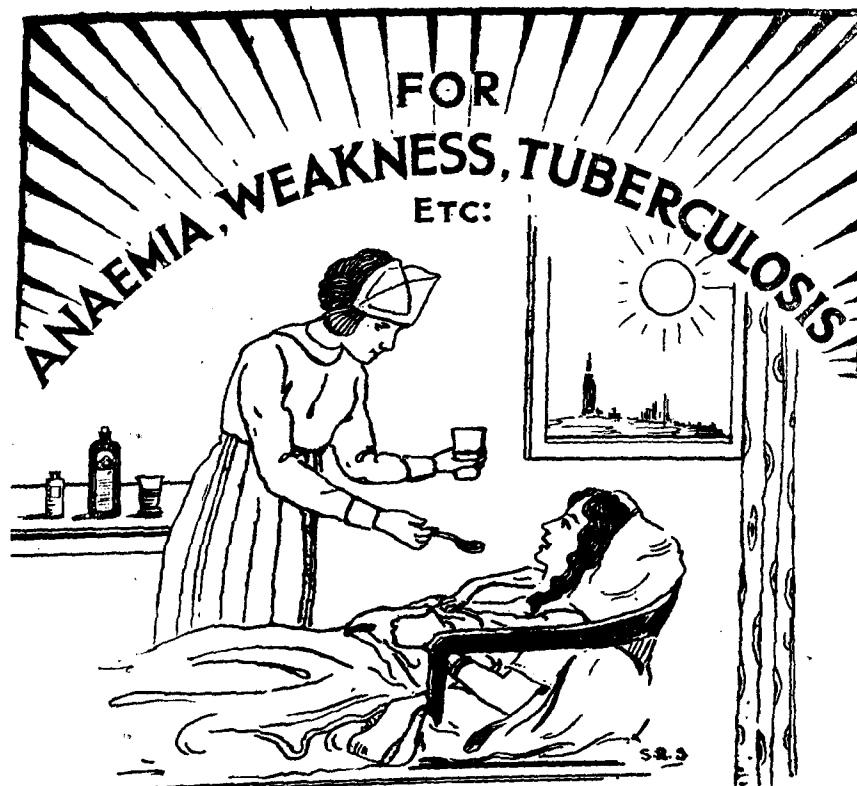
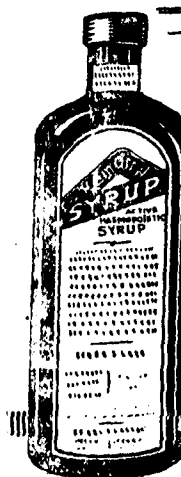
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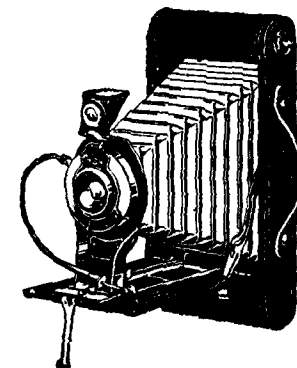
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ENGLISH LITERATURE:

Vad and Mohile, Ind. Med. Gaz. August, 1927.

Fletcher and Kanagarayer, Ind. Med. Gaz., Sept., 2

Manson-Bahr. The Lancet, January, 1928.

Proc. Roy. Soc. Med. xx, 919, 1927, Br. Med. J.

Sinton, Paper read on the VII Congr. of the

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