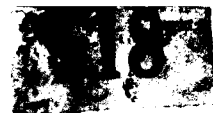


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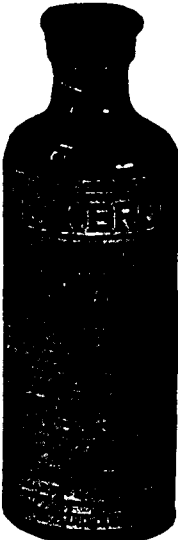
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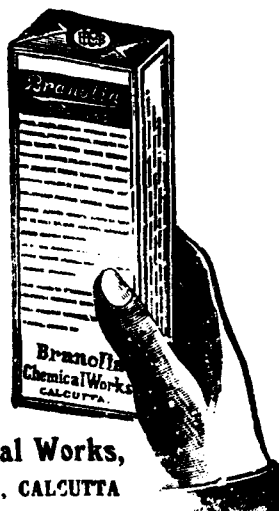
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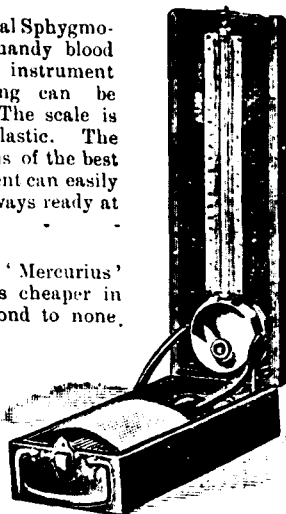


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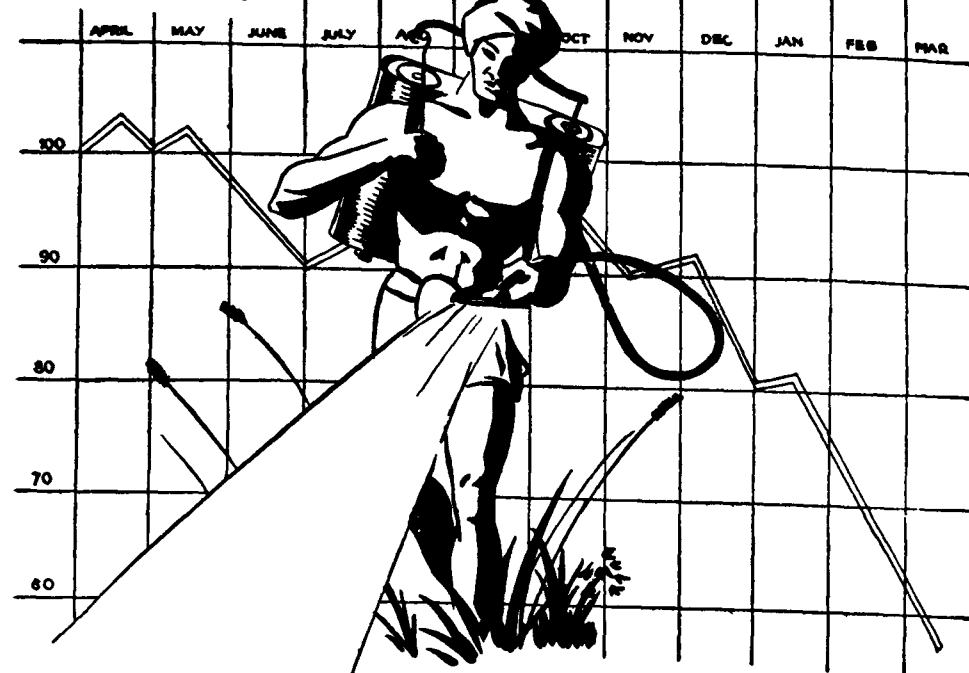
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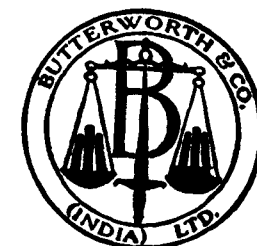
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The Managing Editor

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Original Articles

ANÆSTHESIA AND ANÆSTHETISTS*

By DR. BAKTWAR SINGH, M.S.M.F. (Pb.)

Many strides have recently been made in the theory and practice of the art of Anæsthesia and every practitioner must take note of them and give full benefit of his knowledge to his patients. Any avoidable pain given or injury (mental or physical) inflicted on the patient through lack of proper knowledge of Anæsthesia on the part of the General Practitioner is morally wrong and professionally unjustifiable. The comforts of the patient should demand our maximum attention and this is my apology for selecting this common and general, though an important but yet neglected subject for discussion.

History of Anæsthesia.—Before discussing the subject it would not be without interest to give a brief history of the art of Anæsthesia. The idea of using drugs for relieving pain is very old. In ancient books, mention is made of such drugs as *Mandragora*, *Mandrake* and *Napenthe* which were used to relieve pain by inducing forgetfulness or oblivion of grief and sorrow. *Hyoscyamus*, *Belladonna*, *Solanum Bhang* or *Cannabis-indica* are even now very commonly used in India by the villagers. I remember to have seen a "Jarrah" or the so called "Indian Surgeon" giving a big dose of *Bhang* to a patient before using his crude methods of stitching and treating multiple wounds in a village. A similar drug, *Dakha*, was known to the Negroes of Southern United States and of Brazil. Like the ancient Indians, the Chinese, Egyptians, Romans and Jews were equally conversant in using such sedative drugs in relieving pains.

Besides drugs, other methods as compression of arteries and nerves, bleeding to cause Syncope were also in vogue in those days. Hypnotism and Mesmerism also had their chance. All these methods were crude and primitive and much progress was not made till the Nineteenth Century. Freezing salt solution, Ice, and Ether spray were introduced for causing local insensibility. Morphine injections around the nerves were also tried. Sir Humphry Davy in 1800 used the Nitrous oxide Gas or *Laughing Gas* in his operative works. In 1846, Doctor W. T. G. Morton of Boston used Sulphurous ether. His results were appreci-

ated. He was given a prize and a monument was erected to his memory in Boston, after his death in 1868.

Doctor I. Snow of St. George Hospital, London, published a book on ether inhalation. The then well known Doctor, Sir James Young Simpson, was in search of some better drug and methods of Anæsthesia. After much research work, at the risk of his own life, he made a personal trial of Chloroform in 1846 and thus made a most valuable discovery. Chloroform now supplanted all other drugs owing to its easier administration, pleasant odour and speedier action. Its use in obstetric cases was opposed by the church on religious grounds. Dr. Simpson quoted scriptures and wrote "My opponents forget the 21st verse of the 2nd Chapter of Genesis. It is the record of the first surgical operation ever performed; and that the Maker of the Universe before He took the rib from Adam's side for the creation of Eve, caused a deep sleep to fall upon Adam". Gradually the opposition to the use of Chloroform subsided and the "impious frustration of the curse of Almighty upon women" began to be looked upon as the greatest boon science ever conferred upon mankind.

Chloroform and Ether still hold the field in General Anæsthesia. Some research work was done in the direction of Local Anæsthesia and Koller introduced Cocaine in 1864 and later on many drugs of the same type as Novocaine, Stovaine, Tropocaine, Eucaine and other combinations used as basal Narcotics were introduced and every effort made to make an Anæsthesia safe, certain and easy.

After all this prolonged and hard work, Anæsthetics can now be safely used. Mortality resulting from over dose of an Anæsthetic is only one in ten thousand. Higher mortality reported is mainly due to other factors, such as impurity of drug, injury to the patient, bad state of health and similar other so called "Bad Risks" which, now, on account of the improved methods of administration of Anæsthetic are often considered negligible by the bolder surgeons of to-day.

Technique of Modern Anæsthesia.—Modern surgery entirely depends upon the modern anæsthetic and the complete reliance and confidence of the surgeon in his anæsthetist. An anæsthetist requires, even in the simplest operation, a certain amount of preliminary consideration and discussion not only with the surgeon but with the patient also; co-operation between the Surgeon and the Anæsthetist is thus essential, not only during the actual operation but also in the careful

* A paper read at a clinical meeting of the Delhi Branch of A.I.M.L.A. on 8-6-35.

preparation of the patient in order to secure best result out of the complicated technique of modern operative surgery. It is no longer sufficient for the Anæsthetist to pack his chloroform inhaler, Gas cylinders, mask, lint, ether etc., and light-heartedly start out just before the appointed hour of the operation. Many a patient is neither ignorant nor indifferent to the subject of Anæsthesia but on the other hand takes a lively interest in the choice and manner of induction. His previous experience may be helpful and his wishes, within certain limits, should be met with provided they are not contra-indicated for some reason or other. The surgeon on the other hand may have his own idiosyncrasies which need be satisfied, as after all an anæsthetist plays the role of a subordinate in the so called surgical team. In head, neck, thorax and abdominal surgery especially, anæsthetic and the apparatus used must conform to the surgeon's demand. In other operative fields, the surgeon should deem it wiser to allow the Anæsthetist to follow his usual practice rather than to insist on methods in which he is less skilled. An anæsthetist should always keep in mind that he is present there primarily as an assistant to the surgeon and thus should always try to meet his wishes in regulating the depth of an anæsthesia according to the stage and nature of operation.

It is often stated that "light anæsthesia" is dangerous. This needs, however, some qualification. If "inadequate" or "incomplete" or "pseudo or sleepy" is substituted for "light" a few will disagree. Nitrous oxide Gas and Oxygen, when given alone, certainly give no greater depth of Anæsthesia than "light anæsthesia" and the question of danger of "light anæsthesia" in such cases never arises.

The success of Anæsthesia lies in satisfying the surgeon's requirements with the minimum amount of anæsthetic. This is much easier with Mixture preceded by "Basal Narcotics" than with open ether alone as the adjustment of depth is much finer with the former, while the latitude of safety with ether is much greater, and the finer levels of anæsthesia are more difficult to maintain. Properly given, nitrous-oxide-ether induction is the easiest, pleasantest and most satisfactory but a high degree of skill, acquired by long and continuous practice, is required and a few have got the knack of following this method faultlessly.

During the maintenance of anæsthesia the Vital importance of keeping the air-passages patent should never be overlooked. The

stertorous breathing may soon be followed by deficient oxygenation, congestion, salivation and the whole vicious sequence. In a slight degree it may impair muscular relaxation and mar recovery by unpleasant symptoms of headache and heaviness. The aim and object of producing a perfect anæsthesia with maximum safety without subsequent sickness or other ill effects should always be before us. The consciousness of the induction of an anæsthetic is frequently looked upon as an ordeal to be avoided even by adults. It is undoubtedly expedient to spare the young children the knowledge of an impending operation and an anæsthetic. These objects are easily secured, more than ever before, by the introduction of various "Basal narcotics" and the greater knowledge in the use of nitrous oxide and oxygen. Numerous improvements in the gas oxygen machines, the finer adjustment valves and the accurate devices for measuring and varying the proportion with or without ether and chloroform vapour have greatly facilitated and improved the art of anæsthesia. The supply of gas free from moisture has eliminated the freezing of valves and the necessity of warming them.

All these improved methods of induction and maintenance of anæsthesia are availed of to the maximum and their use has become very popular in Europe and America. The comforts of the patient receive first consideration at the hands of the surgeon and the anæsthetist and the mental outlook of the public towards anæsthesia is altogether changed. The people feel gratified at the satisfactory results obtained through improved methods of anæsthesia and the horrors and ordeals of anæsthesia have become memories of the past.

Safety of Anæsthesia.—This is a very important point and every effort must be made to secure it. By the introduction of improved methods of administration of anæsthesia the whole outlook has been changed. Chloroform and ether are nearly cent per cent safe and many operations taken as bad risks in olden days are now done with excellent results. To ensure safety, the anæsthetic must be administered in a warm, moist and diluted condition. Warm and moist vapour chloroform is thrice as safe and ether twice as safe than when given cold. Warm vapours do not allow the body temperature to become subnormal and recovery after anæsthesia is accelerated. It is less irritating and produces less secretion in the air passages. Acidosis and post anæ-

sthetic Bronchitis, Pneumonia etc., are comparatively rare.

Administration of oxygen along with the anæsthetic is essential. It produces deep, smooth and safe anæsthesia, prevents cyanosis and duskiness of face, tones up the cardiac muscles, raises the blood pressure and saves the body cells from destruction. The work of Haldane and Yandell Henderson on carbon-di-oxide drew attention to the practical use of this Gas in general anæsthesia. It is a great respiratory stimulant and is administered in five to ten per cent dilution with air and oxygen. It tends to abolish "Stridor", raises blood pressure, lessens surgical shock and makes the respiration regular and deep. At the end of anæsthesia, by stimulating respiration, the elimination of the anæsthetic and recovery are accelerated and the chances of sickness minimised.

Anæsthetics can be divided into two groups.

1. Volatile
2. Non-Volatile.

1. **Volatiles.**—Nitrous oxide-oxygen anæsthesia alone or along with basal or local anæsthesia is more frequently practised in Europe and England in these days. Its use in India is not so common, perhaps on account of paucity of trained hands and equipment of special technique and apparatus etc. It is a safe method and gives sufficient muscular relaxation.

Ethylene with oxygen is very commonly used in America. It is claimed to produce greater relaxation than Nitrous oxide. Its disadvantages are that the gas is not easily available and is unpleasant in odour and easy to explode.

Ether still holds the ground for its own advantages. It is administered in various ways. The important ones are the following:—

1. Open Ether.
2. Closed Ether.
3. Vapourised Ether.
4. Nasal Method.
5. Rectal method.
6. Intra-tracheal and
7. Intravenous Method.

Rectal method needs a little elucidation. Ether is given mixed with olive oil and the calculation of the dose is one ounce of 65% solution for every 20 lbs of body weight. Generally it is given in the proportion of 4 ounces of ether, two ounces of olive oil and two drams of Paraldehyde. Sometimes, it is given in the proportion of six ounces of ether dissolved in two ounces of olive oil. The advantages claimed by this method are:—

1. Less ether is used.
2. Rapid recovery.

3. Less troublesome after-effects.

4. No stage of excitement.

Other methods are either so well known or rarely used that they need no detailed discussion.

Chloroform.—is not now so extensively used as before. Its chief use is in the induction stage and the anæsthesia is generally maintained afterwards by a mixture of chloroform and ether or ether alone. It is a dangerous drug and should be used with care. Chloroform and ether still hold the field as general anæsthetic and it would be of interest to show in a tabular form the merits and demerits of these two drugs.

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3. It is not inflammable.	Being inflammable should not be brought near the fire.
4. A small quantity is enough for an anæsthesia.	A large quantity is needed to produce anæsthesia.
5. The smell of chloroform is not disagreeable.	The smell is disagreeable
6. The stage of stimulation is shorter, therefore less struggling.	The stage of stimulation is very much protracted and there is more struggling.
7. The fall of temperature is slight.	The fall of temperature is great (Hare observed 4.4 F. in man.)
8. The stage of anæsthesia is more complete and the degree more profound.	The stage of anæsthesia is shorter and the degree of anæsthesia is less profound.
9. Cardiac, respiratory and vaso-motor-centres are readily paralysed. Hence chloroform is not so safe an anæsthetic.	Ether is a safe anæsthetic in these respects.
10. Nausea and vomiting less common after-effects.	Nausea and vomiting common after-effects.
11. Elimination is rapid and the smell does not hang about so long.	Elimination is slow and the smell hangs about for a long period.
12. Bronchial and lung complications are uncommon.	Bronchial and lung complications such as Bronchitis and pneumonia are very frequent.

13. Death from syncope is more probable in subject of cardiac weakness. Death from syncope is less probable even in subject of cardiac weakness.

Divinyl Oxide.—It is a promising recent addition. It is a clear liquid, more volatile and less explosive than ether. Non-irritating and sweetest in odour. Induction is smooth, easy, prompt and even with complete muscular relaxation.

Carbon-dioxide.—In ten per cent solution with oxygen it is administered as respiratory stimulant. It makes the respiratory movements deep and regular, minimises the post-operative bronchitis and pneumonia. It is eliminated rapidly, post-operative recovery is accelerated and the chances of sickness reduced.

Basal Narcotics.—The term, though recently coined, is not a new one. Opium, Cannabis-indica etc., were employed previously to gain this end. Recently some more complex chemical compounds have been introduced. These can be given by mouth, rectum, or by vein. The most commonly used are the following.

Paraldehyde.—The drug has long been used as a basal Narcotic with good results. It is administered dissolved in normal saline per rectum. It provides a safe, sure and certain method of avoiding more unpleasant after-effects of an operation. Sleep generally comes on rapidly and recovery period is prolonged from five to eight hours and so the patient does not feel the unpleasant odour of the drug which is excreted through the lungs. Post-operative restlessness is uncommon. In matters of safety and certainty of action the drug compares very favourably with other drugs and it facilitates the task of the anaesthetist without adding to his anxieties.

Avertin.—It is a product of Bromol and is not merely a narcotic but a true anaesthetic. It is either given per rectum or intravenously and the safer dose is calculated as grains $1\frac{1}{2}$ for each $2\frac{1}{5}$ lbs. of body weight. No previous or after washing of rectum is necessary. When given intravenously the patient feels drowsy and goes to sleep within ten to fifteen minutes and is fit to be taken to an operation room. In the beginning, the respiration is shallow and appearance ashen which may be mistaken for cyanosis. Pupils contracted, pulse remains good and blood pressure, as in normal sleep, falls only by 10 to 15 M.M. of Hg. Its greatest advantage is in the fact that its effects on the cardio-vascular centres are nearly negligible and therefore this method

is selected in diseases of the heart and blood vessels when other drugs are contra-indicated. The condition is ideal for the surgeon. There is minimum bleeding. Muscular relaxation is complete and the diminished excursion of the diaphragm is an additional advantage in abdominal surgery.

Post-operative condition also is very satisfactory. The patient appreciates the easy induction and the after-effects are not so unpleasant. Post-operative vomiting and restlessness are seldom troublesome. Morphine and other derivatives of Barbitone need not be employed as pre-medicaments or adjuvants. Atropine is the only thing to be used for its beneficial effects, so well known to the medical profession.

Ready made solution of the drug is available in the market. It is a very good anaesthetic in Grave's disease. Thyroxine neutralises and detoxicates the drug. Such cases can, therefore, safely take larger doses of Avertin as the toxic effects are minimised. The drug is detoxicated in the liver and is excreted by the kidneys. These organs, therefore, may sometimes be damaged. Present opinion indicates that Avertin is an extremely useful addition to the range of anaesthetics now available for administration.

If desired, the narcotics can be interrupted by injection of Coramine and Ephedrine etc.

The Barbiturates.—Derivatives of Barbituric acid are extensively used as narcotics. Uncertain action on certain individuals, respiratory and circulatory troubles and mental excitement are some of the common defects of this group of narcotics. Some of the commonly used drugs of this group are discussed below:—

Sodium Amytal.—A white crystalline powder given intravenously dissolved in water at the rate of one gramme per minute makes the patient go to sleep. Gas oxygen and ether anaesthesia are given later on. Cardio-Vascular centres are depressed more but reflex excitability is at a lower level, than when Avertin is used. Its use in delivery cases is gaining popularity. Three grains of this drug followed by 30 grains of Chloral hydrate are sufficient to cause a safe and painless labour though the period may be prolonged.

Nembutal.—is more toxic than sodium amytal. Therefore a smaller dose is given. The period of detoxication is short, only 3 to 4 hours. The drug may be given by mouth or intravenously. Muscular relaxation is not so good but insensibility is more complete than with Avertin. Cardio-vascular centres are very much depressed.

Pernocton.—Grains Four and a half dissolved in 3 c.c. aqueous solution (ready made ampules) given intravenously at the rate of 1 c.c. per minute makes the patient go to sleep so quickly that he becomes unconscious before the needle is withdrawn. This shortens the induction period, so troublesome to the patient and the anaesthetist in general anaesthesia. It is said that post-operative vomiting and mental restlessness are more prone to occur. The recovery period is 3 to 6 hours.

Out of these drugs Nembutal is commonly used. It may be given by mouth, but the dose is rather difficult to be estimated. Intravenous route gives excellent results and is satisfactory. Sodium Evipan (Bayers) also gives satisfactory anaesthesia when injected intravenously.

Synergistic Anaesthesia.—This principle has long been recognised and a busy general practitioner knows very well how to augment or counteract the action of certain drugs when combined with other ones.

Morphia, one eighth grain dissolved in 4 c.c. of 25% solution of Mag Sulph injected subcutaneously, gives better results than in purely aqueous solution. Its value is increased by 50 to 100 per cent. When so combined, only small doses of Morphia are required and its action is more prolonged. Nausea, vomiting and distention and other unpleasant after effects of Morphia are considerably reduced. Better muscular relaxation, no excitement stage and smaller dose of anaesthetic, thus avoiding dangerous results of an overdose, are the other favourable points. One of course should never forget that the use of Mag sulph injections should invariably be avoided in patients suffering from kidney disease.

Spinal and local Anaesthesia.—The use of the drugs of the Novocaine group has recently become very common in this direction with great advantages to the patient and the surgeon. The following are the indications where this method of anaesthesia is usually preferred by the surgeons:—

1. Cardiac Disease, as Mitral and Aortic diseases.
2. Respiratory diseases, as Emphysema, Asthma, Pneumonia and Tracheal obstructions.
3. Kidney diseases, as acute and chronic Nephritis.
4. Aneurisms of Aorta, Goitre, Atheroma, Status Lymphaticus and Rectal operations.

5. Bladder operations, as Prostatectomy, for Stone, or growth in bladder etc.

6. Abdominal operations as Hernia, where complete relaxation of muscles without post-operative vomiting and straining are the desired ends.

7. Intestinal obstructions and Amputation, to minimise shock and in all other emergency cases where the patient is very nervous, had meals and is not prepared for general anaesthesia.

Contra-indications.—are very few. Septic conditions, Pyæmia, Syphilitic and other lesions of the cord and Gangrenous conditions may be mentioned under this heading.

Advantages.—Quick induction and simplicity of technique and apparatus; safety in heart, lung and renal diseases; no preliminary preparations of patient; complete relaxation of muscles; avoidance of post-operative vomiting, retching and restlessness, and other lung complications; facility to the surgeon owing to less oozing of blood and less venous engorgement and other straining factors are the other advantages. There is no post-operative shock, rather the shock in accident cases is lessened, consciousness is retained and the patient can co-operate with the surgeon in coughing out the sputum in the throat, in giving further consent for radical cures when the same are not first planned. No retraction of tongue resulting in asphyxia or inhalation of vomitings are the other additional points in favour of spinal anaesthesia. This long list of advantages should not of course lead one to the conclusion that there are no disadvantages in this technique. Uncertainty of amount and length of anaesthesia required, dry spines, injury to cord, persistence of paresis on account of injury to the nerve resulting in fibrosis and paralysis of intercostal muscle in some cases (not so common as thought before) are some of the disadvantages of this method of anaesthesia. Judging as a whole, spinal anaesthesia provides ideal facilities and is therefore the method of choice in modern surgery.

Drugs used.—Cocaine was the first drug used for this purpose, but has long been given up owing to its toxic effects. Eucaïne, Novocaine, Tropocaine, Alypin, Stovaine and Percain are some of the other drugs used but Novocaine has nearly replaced them all in recent times.

Novocaine.—Novocaine is generally given in one to two C. C. doses of four to five percent

RADIO THERAPY IN GLANDULAR DISEASES

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The high hopes held out by the pioneers of Surgery in the field of Glandular tuberculosis have not been realised. It was at one time thought that by removing the affected glands by means of knife, the disease would be radically cured. The proud name *radical method* which they gave to this mode of treatment as opposed to the older methods which were disparagingly referred to as *conservative methods*, indicates the sure faith which inspired the first workers in the field. Their enthusiasm led to extensive and heroic operations. The expected results, however, did not come off and it was slowly realised by them that they were only treating the local condition of a disease which had infected the whole body. At best, their treatment was palliative which was also the case with what they were pleased to call *conservative methods*. Pure surgery had to descend from its high position and call to her aid the other medical branches. Good hygienic conditions, invigorating climate, pure air and Sun were recommended, though still main work

(Continued from previous page)

solution in the sub-arachnoid space between the 1st and 2nd for higher analgesia and 3rd and 4th lumbar vertebrae for lower analgesia. These are the proper sites for the required injection.

For local anaesthesia half to one per cent solution of novocaine is used and the locality for the operation is thoroughly infiltrated before starting the operation. Four to five ounces of this solution can be injected at a time and many important operations as Hernia, Hydrocele, Resection of ribs, removal of tumours Etc., are done now-a-days under local anaesthesia with excellent results. Local anaesthesia is gaining popularity every day on account of its inherent advantages.

The art of anaesthesia has been greatly revolutionised in recent times. From crude and primitive stage, it is reaching scientific accuracy and perfection. Further research work in the direction of basal narcotics and drugs required for Spinal and Local anaesthesia making the process safe, easy and certain would, I believe, lead the profession to the desired goal of being more useful to the suffering humanity.

was to be done by the knife. The results however continued poor. Even with the aid of vaccines, chemical therapy and various other branches of physiotherapy no better results were achieved. Thus surgery gradually became relegated to an inferior position in the treatment of glandular tuberculosis. The general practitioner is not the wiser for this surgical adventure. He still gropes in the dark so far as the treatment of this disease is concerned. He is not put on the therapeutic high road. He prescribes now one line of treatment, now another, all having one common merit that he has no faith in them. But the fight with the scourge is not therefore abandoned. Experiments with new methods are constantly going on. Among the latest methods which are thus being tried is Ray Therapy which is comparatively of recent growth. It is being chiefly tried in cases of surgical tuberculosis. In Nawanagar Solarium, in the course of one year 1934-35, we treated 59 cases of Glandular Tuberculosis and the results have been very encouraging so far, so that the revival of the hopes of finding a radical treatment for the disease would not be wholly unjustified. Of course, Ray Therapy does not lay claim to an exclusive line of treatment. Pure air, plenty of Sun light, a suitable dietary, rest and good hygienic conditions are prescribed by the Ray Therapist in addition to his special line of treatment. Even surgical operations have to be performed before the treatment could be given with advantage. Thus in 20 cases the glands had to be operated either because they were enlarged to an enormous size or were threatening to burst up or on account of the presence of fistulous tracts. I append here a classified record of the 59 cases treated by us at the Solarium. On the whole, by Ray treatment the general condition of patient improved very much and good aesthetic results were obtained. Average period of treatment was from two to four months.

Analytical Summary of Cases treated

1. Aetiology

- History of tuberculosis in the family was found in 5 cases and history of contact with tuberculous patients was available in 2 cases.

- Age. It is found commonest in the first and 3rd decades of life.

1 to 10	... 19 cases.
11 to 20	... 16 "
21 to 30	... 22 "
31 to 40	... 2 "



Case No. 1. Before Treatment



Case No. 11. Before Treatment



Case No. 25. Before Treatment



Case No. 51. Before Treatment (Left and right side Views)



Case No. 35. Before Treatment



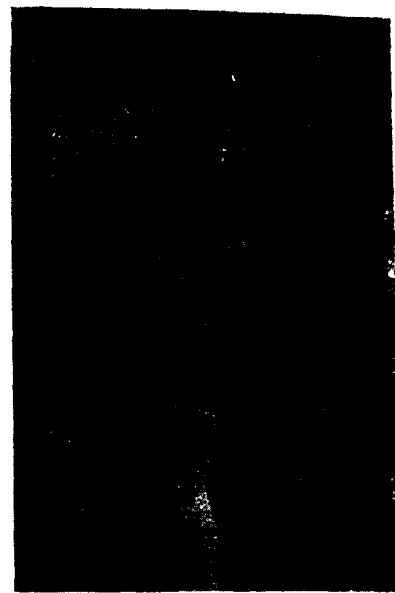
Case No. 36. After Treatment



Case No. 38. Before Treatment



Case No. 45. Before Treatment



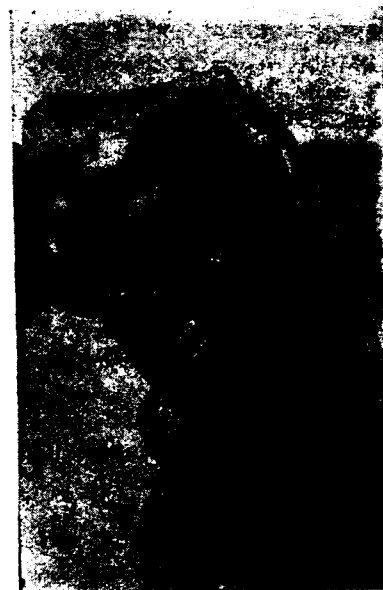
Case No. 55. Before Treatment



Case No. 56. Before Treatment



Case No. 58. (Left) After Treatment (Right) Before Treatment



Case No. 57. Before Treatment



Case No. 57. After Treatment



Case No. 59. Before Treatment

3. Sex.		
Male	...	27 "
Female	...	32 "
4. Residence.		
City life	...	47 "
Village life	...	12 "
5. Caste.		
Hindus	...	40 "
Mahomedans	...	16 "
Others	...	3 "
6. Primary cause was found in 35 cases.		

2. Pathology
Site: Neck 50 cases 8 cases of bilateral enlargement of glands.
2 cases of glandular lesions on one side of neck and axilla.

Axilla 6 "
Groin 3 "
Duration of disease :
Minimum 25 days.
Maximum 10 years.
Average 10 months and 20 days.

Stages of Glands :

1. Simple Adenitis with free movable glands ... Cases 14
2. Peradenitis and caseation... " 35
3. Suppurating adenitis and fistulae ... " 10

3. General Symptoms

Were observed in 12 cases. They were fever, emaciation, anæmia and debility. Secondary pyogenic infection was observed in 5 cases.

4. Treatment

All patients were advised rest, fresh air and good hygienic conditions. Quantity of fat in the diet in the form of milk and butter was increased. They were advised to protect themselves from chill and dust. Jamnagar climate is more or less sea climate and that was very beneficial in glandular tuberculosis. Cod liver oil, iron and calcium were generally administered. Operative treatment was resorted to in 20 cases under the following circumstances.

1. Massive enlargement of glands ... 5 cases
2. Caseation ... 3 "
3. Secondary infection and sinuses ... 12 "

Out of the cases treated, 48 received outdoor treatment. 11 patients were kept indoor. Radio Therapy consisted of Solar radiations, total or ultra violet, artificial ultra violet and

Deep X-ray. Best results were seen with solar radiations where ultra violet and total radiations were given in a combined form. Some cases improved only after exposure to Deep X-rays.

Skin sensibility tests showed that most of the patients were not very sensitive to solar radiations, hence they could be given large doses of these radiations without ill effect.

Table No. I

Sun light	(Natural	(STR)	52
	Artificial	(Arc lamp)	14
Ultra violet	Natural	(SGUV)	53
	Artificial	(Mercury lamp)	3
Deep X-rays	—	—	8
Duration of treatment			
Minimum	...	2 weeks	
Average	...	7 "	
Maximum	...	20 "	

Results

Cured ... 25 cases
Relieved ... 17 "
Discontinued otherwise ... 17 "

Conclusions

1. General health improves far better under this line of treatment.
2. Scars left behind are nearly invisible and there is very little disfigurement.
3. No interference with lymphatic circulation.
4. Natural protective power of lymph glands retained.
5. Educational value. Patient learns up the habits of regulated and open air life.
6. This is really the radical line of treatment as natural resisting power of the body is stimulated to rise up to the occasion.
7. Radiotherapy is not the quack method of application of artificial rays by any man without proper means and knowledge. Skin sensibility of each patient must be studied. Solar radiation ought to be accurately measured. Proper doses of different kinds of rays ought to be adjusted. There should be facility for Deep X-ray or Radium rays for cases which do not improve under Solar radiation. Radio Therapy is a special branch of medicine and good results can only be obtained if scientific study and method are brought to bear upon the treatment of each case.

No.	Regd. No.	Sex	Age	Residence	Caste	Disease	Duration	Test			Duration of treatment	Treatment	Result	No. of cases
								Immediate Se 1	Deferred Se 2	Pigment Se 3				
1	88	S	9	Vijerkhli	H. Koli	Adenitis Neck	2 months	—	9	—	25 days	Arc	DT	1
2	50	M	15	Jamnagar	Hindu	"	6 weeks	—	—	—	20 days	"	"	2
3	391	N	22	Bhavadar	H. Lohana	Bilateral	2 months	1	4	12	1 month	STR & SGUV	"	2
4	86	M	12	Kutiyana	H. Lohar	"	8 "	—	—	—	2 "	"	Cured	2
5	102	M	17	Jamnagar	H. Brahmin	Axilla	6 weeks	3	12	—	2 "	"	"	2
6	402	M	28	"	H. Nagar	Neck	1 month	6	12	—	2 "	"	DT	2
7	198	K	20	"	Moh.	" Bila-teral	4 "	—	—	—	8 "	STR & SGUV Arc Deep Xray	Cured	2
8	54	C	28	"	Hindu	"	2 "	—	18	—	2 1/2 "	"	"	2
9	70	H	8	"	Moh.	"	2 "	—	14	—	15 days	STR & SGUV ARC	DT	2
10	281	A	21	Ladpur	"	"	2 1/2 "	10	14	18	20 days	"	"	2
11	316	M	25	Jam Bhimdi	Khoja	Axilla	2 years	2	12	17	8 months	STR & SGUV	Cured	8
12	338	J	30	Jamnagar	H. Brahmin	Neck & Axilla	2 1/2 "	—	—	—	15 days	STR & SGUV ARC	DT	2
13	349	B	4	"	H. Darji	"	6 weeks	8	—	—	1 month	"	Cured	2
14	359	M	18	Kalavad	H. Bania	Neck Bi-lateral	5 years	3	8	12	20 days	STR & ARC HG Lamp	DT	2
15	381	S	23	Jamnagar	H. Darji	"	1 1/2 mths.	—	—	—	4 months	STR & SGUV Deep Xray	Cured	2
16	403	J	7	"	Pakkali	Neck	2 "	8	12	—	1 "	AB & ARC	DT	2
17	413	C	7	"	H. Brahmin	"	2 "	2	10	15	8 "	"	Cured	2
18	482	K	24	Dwaraka	H. Kadia	"	8 "	6	12	—	1 "	STR & SGUV ARC	"	8
19	482	D	20	Menderla	H. Bania	"	2 years	—	—	—	2 1/2 "	STR & SGUV ARC & Deep Xray	"	2
20	490	M	22	Jamnagar	H. Brahmin	Axilla	2 "	—	12	—	1 1/2 "	STR & SGUV	"	2

21	491	N	22	M	Khamblhalis	H. Satvara	Neck	7 months	8	14	—	8	—	—	2	STR & SGUV Deep Xray	"	2
22	558	S	8	M	Jamnagar	H. Khavas	"	2 "	—	—	—	12	—	1 14	18 days	STR & SGUV	DT	1
23	557	J	10	F	Dhoraji	Moh.	"	4 "	—	12	—	4	13	6	21	"	"	2
24	583	H	21	M	Jamnagar	H. Barber	"	1½ "	—	—	—	7	—	3	2 months	STR & SGUV ATR & AGUV	Cured	2
25	582	N	9	F	"	H. Bania	"	8 "	10	—	—	7	18	2	15 days	STR & SGUV ATR & SGUV ARC	DT	2
26	623	N	15	F	"	H. "	"	8 "	12	16	—	4	17	5	8 months	STR & SGUV ARC	Cured	3
27	678	G	16	M	Palitana	H. "	"	2 "	10	—	—	10	—	—	20 days	STR & SGUV	DT	8
28	769	J	2	F	Jamnagar	Vora.	"	4½ "	10	—	—	12	18	—	20	STR & SGUV	Cured	2
29	766	K	22	F	"	H. Brahmin	"	4 years	12	16	—	4	17	5	8 months	ARC & SGUV	Relieved	2
30	958	J	28	M	"	Parsee	Groin	2½ mths	10	—	—	10	—	—	21 days	STR & SGUV	Cured	1
31	1007	S	5	F	"	H. Brahmin	Neck	25 days	3	12	—	2	8	2	25	STR & SGUV	"	1
32	917	M	25	F	"	Moh.	"	3 years	—	—	—	5	8	18	2 months	STR & SGUV	"	1
33	895	U	20	F	Jamnagar	Christian	Groin	3 Years	6	3	—	—	—	—	20 days	"	"	1
34	1182	M	20	F	"	H. Kadia	Neck	6 Months	14	18	—	14	18	12	25	"	"	2
35	1085	B	20	F	Idar	Hindu	"	8 "	—	18	—	10	14	18	20	"	Relieved	3
36	765	D	25	M	Balammbha	H. Darji	"	6 "	2	12	—	3	12	2	5 Months	"	"	3
37	1029	A	35	F	Jamnagar	Parsee	"	2 "	3	11	14	9	12	—	4	"	"	1
38	139	V	2	F	"	H. Bania	"	2½ "	—	—	—	—	—	—	27 days	"	"	2
39	184	A	18	M	"	Moh.	"	1 "	18	—	—	18	—	—	22	"	"	2
40	1465	O	25	M	Kutiyana	Memon	"	2 "	3	10	2	—	—	—	2 Months	"	Cured	2
41	1499	S	2½	F	Jamnagar	Vohra	"	2 "	—	—	—	—	—	—	1½ "	"	"	3
42	1546	H	2½	F	"	"	"	1 Year	—	—	—	2	8	—	15 days	"	DT.	3

No.	Regd.	Name	Age Years	Sex	Residence	Caste	Disease	Duration	Test			Duration of treatment	Treatment	Result
									Immediate Se 1 Se 2 Se 3	Deferred Se 2 Se 3	Pigment Se Se 2 Se 3			
43	1642	M	16	M	Jamnagar	Moh.	Neck	7 Months	6 10 14	7 18	—	14 Mths.	STR & SGUV	Cured
44	1750	J	6	M	"	H. Lohar	Axilla	10 "	—	6 9	4 9 18	20 days	"	DT.
45	1772	A	10	M	"	Moh.	"	1 "	6 10 12	18	—	2 Months	STR & SGUV Deep X-ray	Relieved
46	1842	D	35	M	"	H. Girasia	Neck	10 Years	5 13 16	—	—	2 "	STR & SGUV Deep X-rays	"
47	1876	A	25	M	"	H. "	"	1 Month	6 —	—	—	15 days	STR & SGUV	DT.
48	247	S	7	F	"	Hindu	"	1 "	2 14	3 11	—	15 "	"	Relieved
49	175	M	23	F	Khaparda	H. Lohar	"	1 "	3 8	4 10	—	25 "	"	"
50	257	A	25	F	Jamnagar	H. Bania	"	1 "	2 12	16	—	20 "	"	DT.
51	274	H	30	F	Jam Jodhpur	Moh.	"	2 Years	6 10	5 11	—	1 1/2 Mths.	"	Relieved
52	327	M	11	F	Jamnagar	H. Bania	"	2 Months	2 11 14	—	—	15 days	"	"
53	373	B	7	F	"	Moh. Vohra	"	8 "	1 4 14	5 14	—	18 "	"	"
54	478	S	25	F	Dhoraji	H. Bania	Groin	1 Year	1 10	1	—	1 Month	"	"
55	1185	N	16	M	Jamnagar	H. Nagar	"	6 Years	—	12 14	—	2 Months	"	"
56	1773	R	17	M	"	H. Vanza	Neck	10 "	2 5 11	15 18	15	2 "	"	"
57	751	A	4	M	"	M. Vora	"	1 1/2 "	14	4 12	4 8 16	2 1/2 "	"	"
58	1334	I	3	M	"	H. Bania	"	3 "	—	—	—	2 "	"	"
59	1310	G	25	F	Khambhali	H. "	"	6 "	—	—	—	2 "	Deep X-ray	Cured

Stage I:—Simple Adenitis with free moveable gland

" II:—Periadenitis and caseation

" III:—Suppurating adenitis with Fistulae

PARAPLEGIA*

BY DR. BRAHUSPATHY, K.I.H.,

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Of the many disorders of the nervous system, those that affect the motor system and lead to motor disturbances consist of various forms of paralysis, one of which comprising a series of phenomena affecting the portion of the body bilaterally, particularly the lower extremities, is commonly termed as Paraplegia. As it is only one of the symptoms of the affection of the spinal cord, a large number of diseases can be brought under this category. The most common affection of the spinal cord with symptoms of paraplegia that comes to our mind is Tabes or Parenchymatous Neurosyphilis. It is therefore necessary to pay sufficient attention to this particular condition which is so commonly seen and comes under the care of medical men for curative measures. When viewed from a pathological view-point it can be seen that all lesions that affect the transverse fibres of the motor tract of the spinal cord are liable to produce paralysis of both sides resulting in varying degrees and types of paraplegia.

For the sake of convenience, it is useful to adopt the classification as under:—

- (1) Spastic Paraplegia due to compression as in:
 - (a) Pott's disease
 - (b) Tumours
 - (c) Injury
- (2) Condition arising from inflammation of the spinal cord comprising of:
 - (a) Myelitis
 - (b) Haemorrhage and embolism.
 - (c) Spinal meningitis
- (3) Sclerotic condition of the cord resulting in:
 - (a) Tabes
 - (b) Ataxic Paraplegia
 - (c) Toxic sclerosis
 - (d) Infantile Paralysis
 - (e) Senile Paraplegia,
 - (f) Functional Paraplegia.

I. Spastic Paraplegia

It is characterised by a rigid or spastic condition of the muscles on the affected part.

*Received for publication on 17-6-35. Slightly rearranged by the Editor. This thesis secured Dr. N. R. Karandikar's prize of Rs. 35/. The donor is one of the oldest member of the A.I.M.L.A. and ex-editor of this Journal. Ed. I.M.J.

This is the result of degenerative changes in the motor neurons of the spinal cord and is due to sclerosis of the pyramidal tract caused by causes other than syphilis. This is the chief differentiation between this and tabes which is due to syphilis.

Symptoms.—The first symptom that attracts the attention of the patient is the growing weakness and subsequent stiffness of the legs, with a feeling of heaviness even after slight exertion. The tendon reflexes are exaggerated. As the disease advances, there supervenes rigidity of the muscles of the leg which impedes movement. Usually the affection is limited to the lower extremities, but arms also get involved in very rare instances.

- (a) *The Paraplegia in Pott's Disease.*—(Tubercular caries of the spine) is due to pressure on the spinal cord of the extra-dural inflammatory products. This affection is commonly met with in children, mostly in girls. As the disease falls under Tuberculosis, I shall rest content with a brief clinical description of the same.

The first symptom complained of in Pott's disease is a peculiar pain near the navel or back which may be mistaken even for mild cases of appendicitis. There is also a sense of constriction right round the hip. The general condition of the patient presents a "typical Tubercular picture." Paralysis of the legs gradually set in which later on emerges to rigidity. There is a slight curvature of the spine with a tender spot pointing to inflammatory mischief and caries. Psoas and popliteal abscess may develop when the diagnosis is very simple and easy. The following is an illustrative case:

A young girl of 10 came complaining of pain over the iliac region of six months duration. On examination a saucer-shaped hard swelling was found in that area. Just above the 10th dorsal vertebra there was a slight swelling with pain and tenderness. There was also a slight lateral curvature. An "X" ray photo revealed the exact condition of the Vertebra and spine. The abscess was drained and the patient had a good relief of her pain and her general condition improved. But after 3 months she developed a Lumbar abscess, pointing as a fluctuating tumour at Scarpa's triangle. Paraplegia had already progressed and her condition was low. She was for a time treated by quacks and when she was again brought to me no surgical or medical treatment was of any avail.

- (b) *Paraplegia due to tumours.*—includes all tumours which interfere with the function of the spinal cord by compressing it from outside or by in-

vading it. More common among them are granulomata, paracystic cysts, neo-plasms, aneurisms and Tubercular growths, giving rise to pain, progressive paraplegia and anæsthesia. Diagnosis and treatment depend upon the causative agents and condition of the symptoms.

- (c) *Injury*.—resulting in damage to the spine and subsequent hæmorrhage is not an uncommon cause of paraplegia, a special variety of which goes by the term *Railway spine* due to railway accidents. The paraplegia is either partial or complete according to the degree of involvement of the motor tract. The following case of injury to the spine was under my care a year ago which is worth-while recording here.

A lad of 18 years while stealing mangoes in a garden fell down which gave him some pain at the back and a little *shake*. He got over it after application of liniments and fomentations. After a month, he was seen walking dragging his left leg and after a fortnight, there was paralysis of both legs. Then he developed anæsthesia of the lower extremities. After two months, he came complaining of pain at his back when a tender spot with inflammation was found at the Dorsal spine. Paraplegia increased slowly and the patient died after a month, treatment being of no value.

Caries of the spine is always associated with marked curvature. The finding of Tubercular foci in the body and X-ray examination will be important aids to diagnosis.

2. Inflammatory conditions of the spinal cord

This can be classified under

- (A) Myelitis
 1. Acute myelitis
 2. Chronic myelitis
 3. Compression myelitis
- (B) Hæmorrhage and embolism.
- (C) Spinal meningitis.

- A. (1) *Myelitis (acute)* frequently follows acute infective diseases such as typhoid, malaria, influenza and small-pox and in some cases after puerperal septicæmia. It is a transverse softening of the cord due to inflammation from one of the causes mentioned above. In almost all cases the onset is rapid and sudden with headache, chill and tingling of the ankles and feet. Subsequently weakness and heaviness of the legs develop. There is complete loss of sensation and motion. There is girdle pain and a band of anæsthesia, below which is

the area in which sensation and motor power are lost. Paralysis is at first flaccid but gradually rigidity supervenes. Bladder and Rectum get involved soon. Reflexes are exaggerated.

- (2) *Chronic Myelitis* represents the same features but the progress is slow. It should be regarded as the terminal stage of either acute or compression myelitis. The objective symptoms are paralysis, spasticity and changes in the reflexes and the subjective are pain, weakness, heaviness and loss of the use of legs and sphincter involvement.
- (3) *Compression Myelitis* is due to Tubercular disease of the vertebra, tumours of the spinal cord, malignant growths, abscess and fracture of the spine. Symptoms are paralysis, stiffness and rigidity, deformity, changes in the reflexes, spastic gait, pain, tenderness and sphincter disturbances.

B. Hæmorrhage and Embolism

Hæmorrhage and Embolism also account as causes for myelitis but the primary cause is either accident or valvular disease of the heart. Symptoms are therefore similar to compression myelitis.

C. Spinal Meningitis

The spinal cord has two coverings, the dura and pia-mater, the inflammation of which is called spinal meningitis. As the two coverings are closely adherent, affection of the one is likely to extend to the other. The various forms may be described separately.

- (1) *External Pachymeningitis* is an inflammation of the outer layer of the Dura-mater. This is always caused by some diseased conditions such as Tubercular abscess, vertebral caries, bed sores etc. Symptoms of irritation of both motor and sensory nerve roots are the first to appear. Pain in the back passing down to legs, stiffness and muscular spasms, paralysis and sphincter troubles develop slowly and gradually one after the other.
- (2) *Internal Pachymeningitis* or Hæmoma of the Dura is rare. Symptoms are pain, loss of power, atrophy, anæsthesia, rigidity, and paraplegia. Reflexes are exaggerated.
- (3) *Acute and Chronic Leptomeningitis* is a disease of infective origin following

abscess of the ear, carbuncles, septicæmia, pneumonia and influenza. The onset is sudden with high temperature, pain, rigidity, tenderness over the spine and stiffness of the whole body. After a long or short interval, there is stupor, which passes on to deep coma which carries away the patient.

- (4) *Multiple Sclerosis* is due to patches of sclerosis scattered all over the entire nervous system; chiefly occurs in young people. The main symptoms are dizziness, impairment of vision and speech, lameness, spastic paraplegia, exaggerated reflexes, "intention tremor", uncontrollable laughter and epileptic attacks. Headache is common. The spinal fluid gives negative Wassermann reaction. Hence diagnosis can be definite when this test gives negative results. This condition is also associated with hysteria, paralysis agitans and syringomyelia.
- (5) *Syringomyelia* is a chronic disease caused by malformation or degeneration of the neuroglia of the central canal of the spinal cord. The following symptoms appear slowly. Atrophy of the muscles is the most important. There is also fibrillary tremors and paralysis of different degree. Deviations of the spinal column are very common. Spasticity with symptoms of spastic paraplegia is common in severe cases and develop during the fatal termination of the disease. There is difficulty in walking, stiffness and coldness and cyanosis of the extremities, hesitation in speech, mastication and swallowing with a tendency to burn or freeze in fingers or toes. The difficulty to walk follows, weakness and emaciation noted in the arms. Bladder and Rectal symptoms occur when the lesion is low in the cord. Being of chronic nature, many complications can supervene.
- (6) *Muscular Dystrophy* is a disease of infancy and can be included under one of the above divisions, though it is not characterised by a definite development of paraplegia. The involvement of the lower extremities with atrophy of the muscles of the legs and the clumsy way in which the

patient walks and gets up, justifying the term "frog walk", are some of the features of this obscure lesion.

- (7) *Progressive muscular atrophy* produces varying symptoms depending on the condition whether the bulb or the spine is affected. Though the paralysis is chiefly limited to the upper extremities, still there are cases when the legs get involved giving a pseudoparaplegia which gives very complicated picture for an early diagnosis. This generally occurs in young persons who are used to hard labour. Atrophy, fibrillary twitchings, paralysis and deformity are the chief symptoms.

3. Sclerosis

Under this head are grouped a number of lesions which are commonly met with and which can be discussed under :

- (a) Tabes
- (b) Ataxic paraplegia
- (c) Toxic sclerosis
- (d) Infantile paralysis
- (e) Senile paralysis
- (f) Functional paraplegia

(a) *Tabes Dorsalis or locomotor ataxy* is a chronic syphilitic lesion affecting the neurons of the spinal cord. It is entirely an adult disease and is considered syphilitic in origin as spirochetes are detected in the spinal cord in most cases. As Wassermann test is positive in a large percentage of cases, it is definitely stated that it is caused by the direct result of syphilitic virus. Exposure to cold, sexual excess, intemperance in alcohol and tobacco, prolonged fatigue are the chief contributory causes.

Symptoms.—The entire course of the disease can be discussed under (i) pre-ataxic (ii) ataxic (iii) paraplegic, even though there is no sharp line of demarcation between the three stages.

- (i) *Pre-ataxic stage* is characterised by lightning pains, loss of knee and ankle jerks and girdle pain. In some cases there is gastric pain leading to vomiting. In early cases and in the earlier stage there is hesitation in voiding urine which gradually emerges on to retention. There is also anæsthesia present at the medial side of the hands and soles giving rise to a feeling as if treading on cotton-wool. Pain on pressure over the calves is also present in some cases.

The ocular symptoms consist of diplopia, inequality of the pupils and the presence of Argyll-Robertson's sign. There is also absence of deep reflexes.

- (ii) *In the ataxic stage* incoordination of the movement in the lower extremities is marked. The ataxia become gradually worse and subsequently invade the upper extremities. The peculiar tabetic gait and loss of equilibrium on standing now supervene. The paralytic stage follows. Incoordination becomes complete. Bladder troubles also set in. In a few cases the ataxic period comes to a close, suddenly ushering the patient to the third stage.
- (iii) *Paraplegic stage.* In this stage the patient loses control over the movements of the lower extremities making him powerless to move about. There is complete loss of control of sphincter—urinary, rectal and sexual. Deep ulcerations on the buttocks do appear and also bed sores.

The course of a typical case is as follows:—

The patient at first finds difficulty in walking, especially in the dark or with eye-lids closed. He may have rheumatic pains for months which are sharp and cutting and which grow in intensity with the advent of rainy or cold weather. There is a feeling of numbness in the feet and hands with a tendency to reel from side to side while washing the face or closing his eyes. As the disease advances, he notices some difficulty in voiding urine or there may be dribbling of urine. At this stage urinary, rectal and sexual sphincters give trouble by retention of urine, constipation and sexual weakness. He then feels numbness of the feet and legs giving rise to a feeling of cold water running down the legs to the feet. Incoordination may slowly develop now. The patient feels as if he is walking on cotton. A feeling of tightness round the abdomen and trunk is also characteristic. The weight of the body is found to decrease slowly. In trying to walk on a line or to place one foot in front of the other the patient finds great difficulty and in many cases impossibility. He staggers and falls if he is made to stand with

eyes closed and the feet approximated. The objective symptoms set in gradually after this, which comprise loss or diminution of knee and Achilles reflexes, Argyll Robertson pupils, optic atrophy, vomiting. Paraplegic state sets in. Osteo-sensibility is lost.

There are disturbances of general nutrition leading to emaciation and anæmia, atrophy of the muscles, bed sores, and perforating ulcer of the foot which is usually circular, perforating down to the bone and causing spontaneous fractures.

Diagnosis.—When the disease has only a few and ill-defined symptoms, there is difficulty in arriving at right conclusions but when the symptoms are well defined, the physician finds no difficulty what-so-ever. The first and the most important diagnostic sign of Tabes is Argyll Robertson Pupils, particularly the "fixed pupil". Bilateral loss of knee-jerks occurs only in Tabes as also Achilles reflex. Romberg's sign is very characteristic, (*i. e.*) swaying of the patient when he is made to stand with eyes closed and feet approximated. Ataxia of locomotion, sphincter disturbances, paralysis of ocular muscles, optic atrophy and trophic changes are the other diagnostic features. If loss of tendon reflexes, pupillary changes and ataxia were to be absent in any one case, we can be positive that it is not a case of Tabes.

Clinical Varieties

- (1) The Bulbar type in which cranial nerves are involved. Laryngeal and pharyngeal crises occur in these cases at irregular intervals, followed by ocular palsies and optic atrophy. Cord symptoms occur in a few cases and ataxia is rare.
- (2) Cervical type is characterised by the affection limiting to upper portion of the body. Supinator reflexes are absent, Argyll-Robertson syndrome are present and also diplopia and ptosis. If, with the symptoms described under the bulbar type, there are also cervical cord symptoms, it is then termed "Superior Tabes". There is also a variety which goes by the name of "Juvenile Tabes" occurring in young persons, as the name signifies.

Treatment.—If Tabes is to be prevented, early and appropriate treatment for syphilis

has to be given. All medical men are in favour of lumbar puncture for Wassermann's reaction test and also to find out whether there is lymphocytosis and an increase in globulin content in the spinal fluid as an indicator of latent syphilitic infection. The best prophylaxis is a thorough and prolonged anti-syphilitic treatment, controlled by blood and spinal fluid tests. This consists of administration of mercury in its various forms, Iodides and later-day modifications of Salvarsan. Mercury should be given in large doses either alone or in conjunction with salvarsan both by mouth and by injection.

Iodide still holds the field in the treatment of Tabes. As large doses cause disorders of digestion, it should be used with caution.

Preparations of Salvarsan are given either intradermally, intramuscularly, intravenously or intra-theccally. I choose solu-salvarsan because it is practically painless on injection and can be given intramuscularly. The other chief advantage is that it does not cause any toxic effects in very thin and emaciated patients. Sulfarsenol is not as painless as solu-salvarsan. Intrathecal injections are far preferable in cases of Tabes. Bismuth preparations are always good in cases where arsenical combinations are contra-indicated. Hydrotherapy is good in selected cases. Electrotherapy is now gaining ground. Massage with electricity is very beneficial in some cases. Re-education of ataxic patients can be undertaken by specialists. Psychotherapy is now considered to give better results with some physicians. Symptomatic treatment consists in the use of Phenacetone, Pyramidon, Antipyrin, Belladonna, Cannabis Indica, Medinal, to relieve pain and gastric symptoms. The general condition of the patient should be attended to by suitable and nourishing food, rest and warm baths.

(b) *Ataxic Paraplegia* is due to primary sclerosis. This is a rare affection and is marked by the characteristic gait. This is usually hereditary. It is differentiated from Tabes by the presence of spastic rigidity, increased knee and ankle jerks, Argyll-Robertson pupils and the absence of lightning pains.

(c) *Toxic Sclerosis* includes a variety of affections which result in paraplegia, the foremost of which is Beri Beri even though it is a disease resulting from faulty metabolism and is directly caused by the deficiency of accessory food principle or vitamin in the diet. Paraplegia after fevers occurs as the result of

Toxins affecting the spinal cord. Two typical cases were observed during my stay here. Following an acute attack of typhoid fever, a lad of 22 years, developed ulceration of the intestines and hæmorrhage. With some difficulty he was brought round. When the febrile symptoms subsided, he developed slow and steady thinning of the muscles of the legs which left him paraplegic. It took one year to re-educate the muscles of the lower extremities before he could be able to walk about. Paraplegia following an attack of Diphtheria occurred in a child of two years. After an acute attack, presenting the typical symptoms, the child recovered with a course of antitoxin treatment. The child was putting on flesh and was quite alright for six months. Later, the child was found unsteady in her legs, and gradually began to drop on her buttocks when made to stand. Knee-jerk was lost. As the case was known to me, a course of treatment by Diphtheria anti-toxin brought round the child.

Multiple peripheral Neuritis and Poliomyelitis come under the same category.

Amyotrophic lateral sclerosis is characterised by weakness, atrophy and rigidity beginning at first in the hands and then extending to the legs. The symptoms progress slowly. The speech is affected, hips get atrophied and there is difficulty in swallowing. The muscles of the face begin to waste. Mind becomes feeble and the patient becomes emotional and child-like. Breathing becomes difficult from paralysis of intercostal muscles. Atrophy, exaggeration of reflexes, twitchings, spastic gait, paralysis and mental disturbances gradually develop.

(d) *Infantile Paraplegia*, as the name implies, occurs in infants. It is due to prolonged labour which cause compression on the foetal spine and subsequent hæmorrhage. The difficulty in diagnosing the case early is experienced and it manifests only when the child begins to walk.

(e) *Senile Paraplegia* or General Paralysis of the Insane or Dementia paralytica is chiefly due to syphilis. Alcoholic excess, continued mental strain, fatigue and old age are predisposing causes. There is sleeplessness, loss of appetite and symptoms of Neurasthenia. Memory of recent happenings is lost though it may be good for the past events. The patients are generally depressed, irritable and in many cases a belief that they are persecuted

by their own relatives is very prominent. They generally wake up early and cause some commotion in the house. There is tremor of the muscles of the face while speaking. They cannot control urine or stools.

(f) *Functional Paraplegia*.—Under this head can be included all other forms which has paraplegia as one of the symptoms.

Hysteria, Railway spine, Diver's Paraplegia, and Reflex paraplegia can be put down under this head. Hysterical paraplegia is a typical functional paraplegia. It is sudden in its onset. Paralysis is not complete and is also inconsistent and evanescent. The chief diagnostic point is that in this type there is no incontinence of urine and faeces. The previous history of the case and the sex of the patients will be of further help in correct diagnosis. Railway spine occurs after Railway accidents due to severe shock or injury to the spine.

Diver's Paralysis or Caisson Disease occurs in men who work under water or under-ground tunnel, where there is high atmospheric pressure. Constant subjection to this pressure and sudden release from the same—as is inevitable among such workers—produce a chronic congestion of the cord and subsequent paraplegia. The history will dictate the diagnosis.

Remarks

Diseases that may lead to a condition of paraplegia have been dealt with in a very cursory way. The symptoms, differential diagnosis and complications are to be derived from each classification. As for treatment, the usual routine is well known (*viz.*) rest, warm baths, fomentation, fixed jackets, electricity, high frequency current, Radium and Deep X-ray and nervine and general tonics are recommended in all cases where the cause is unknown. When known, the primary disease should be treated. Toxins, if any, should be eliminated. Specific diseases require specific treatment. Hence an attempt was not made to dilate under each head. Beyond general outlines, it is unnecessary to harp on any one particular line of treatment as two cases do not present similar symptoms and signs. The details of the treatment are left to the medical attendant who knows how best to serve his patients.

CAUSES AND TREATMENT OF MIDDLE EAR SUPPURATION

By DR. C. V. C. RAO, (DIPLOMAN OF VIENNA)
Broadway, Madras

II

Predisposing causes

i. *Constitutional*.—Depressed constitutional states or lowered vitality render the individual more susceptible to this disease than are the physically and constitutionally robust. This is the reason for the greater prevalence of the middle ear suppuration among the ill-nourished and poorly housed children of the poorer classes. The extent of this is not sufficiently recognised, since, when once the drainage from the ear has been established by a large perforation, the patient suffers no pain and presents no constitutional symptoms sufficiently pronounced to attract attention.

ii. *Age*.—Children suffer more frequently than adults due partly to the influence of pharyngeal adenoids, partly due to their greater susceptibility to the acute infective diseases which give rise to otitis media and partly due to certain anatomical differences in the eustachian tube. The tube in children is shorter, wider and horizontal, while in adults the tube is oblique, longer, nearly double the length and narrower.

iii. *Nasal obstruction*.—Undoubtedly, conditions that produce nasal obstruction are most potent predisposing causes of tympanic disease. The presence of large masses of adenoid tissue in the nasopharynx with or without the enlargement of the faucial tonsils, constitutes a constant menace to the ears, which can be corrected only by removal of the growth.

Other lesions that interfere with nasal respiration are marked deviations of the nasal septum, septal spurs and hypertrophic Rhinitis. While these conditions in adults predispose primarily to catarrh of the naso-pharynx and secondarily to middle ear suppuration, adenoids play the prominent role in children.

Exciting causes

Acute Rhinitis or common cold in the head. This is the most common cause and more so in cases in whom strongly predisposing conditions exist.

Acute infective diseases

Measles, scarlet fever, diphtheria, influenza and typhoid in the order of frequency.

Part I dealing with Diagnosis and complications appeared in Vol. XXIX No. 9, page 456. Ed. I.M.J.

External causes

Sudden and prolonged exposure to cold, inhalation of irritant vapours, injudicious use of nasal douche, diving or swimming.

It is important that the Aurist should take into consideration all the ætiological factors in the production of aural discharge in a given case and try to prevent recurrences. To treat only the acute condition, without precautions to prevent recurrences or development of insidious chronic processes which may follow, is not doing our duty to the patient.

Treatment of aural suppuration

Acute otitis media, catarrhal and suppurative.—

General treatment consists of absolute rest preferably in bed, light and easily digestible diet, preferably liquid diet on the first and second days and thorough cleansing of the bowels with calomel gr. iii. at night followed by a saline purge next morning.

Local.—If the case is in the early stage *i.e.*, without bulging of the drum membrane, we can give a chance to the abortive treatment, which consists of rest, catharsis and liquid diet with measures to alleviate the pain. Dry heat to the ear preferably hot water bag with the patient lying to the same side as the affected ear with contact of the ear to the bag, the heat being adjusted by covering the bag with necessary layers of linen, is very useful. The following prescription will alleviate the pain.

Codeine
Ext. belladonna aa gr. i. ft. 8 powders, one to be
Phenacetin taken every 4 hours.
salol aa gr. xx

This abortive treatment can be tried only for a reasonable time and if no relief from pain is obtained within 24 to 48 hours, myringotomy should be resorted to at once. In fact there is not much chance for us to try this abortive treatment, since by the time the patient comes to us the trouble has already sufficiently advanced with a bulging drum and severe pain, which could instantaneously be relieved only by a prompt incision of the drum.

After the incision of the drum membrane, there is prompt relief of the pain. There may not be much discharge, immediately after incision but discharge starts only after 24 hours. Hereafter our aim is to keep the canal clean of the discharge and prevent the middle ear, getting secondarily infected and facilitate free drainage from it. The response to treatment also greatly depends, as in any other surgical case, upon the vitality and resistant powers of the patient.

To keep the canal clean, it may be necessary to irrigate it with warm boric lotion (1 in 200) once or twice a day, and then plug the concha with absorbent cotton. Although irrigation, when judiciously carried, is good and effective, it is not always possible and within reach of every one, to manage it cleanly and efficiently. Hence I suggest the canal may be cleaned with dry absorbent cotton wool rolled on a stick, until it is clean (without friction to the canal walls). The attendants of the patients must be asked to do this two, three or four times a day, depending on the flow of the discharge, with attention to cleanliness and to plug it with cotton.

This treatment alone will cure in about a fortnight's time, an acute suppuration with closure of perforation, provided that the ear is not secondarily infected. It is very important to test the hearing of the patient after an acute suppuration is completely cured and if defective hearing or noises are present, blowing air through eustachian catheter will surely not only improve his condition but thereby you have perhaps prevented a case from becoming one of chronic middle ear deafness, at which stage probably nothing would improve him. Hence it is very important that, after an attack of acute middle ear suppuration the hearing must be tested and if found defective the patient must be educated about the evils of its neglect and the importance of its being immediately attended to.

If a case of acute middle ear suppuration does not respond to the above treatment or at least does not show signs of abatement, it means, perhaps, that infection is spreading to mastoid and other parts. If this is suspected by the classical signs, as increase of discharge, mastoid tenderness, persistence of pain and temperature, etc., operative recourse must be resorted to, before severe complications like sinus infection and brain abscess develop.

The treatment of chronic middle ear suppuration

When we realise that the persistence of aural discharge is due to the sepsis persisting in the diseased mucous membrane or to some necrotic process going on or to the want of free drainage either due to unhealthy granulations or polypus, we can easily have a conception of the aims of our treatment. The treatment is purely local. I don't propose to go into the details of treating necrotic conditions or polypus etc., but would like to confine myself to the treatment of chronic discharges due either to changes in the mucous membrane like hyperplasia or unhealthy granulations.

Use of irrigation in this case is attended with serious consequences, hence better for a general practitioner to disregard it, although in a few cases like attic suppuration, it is indicated. This had better be left to an aural surgeon. After cleaning the canal of pus with cotton on probes, the meatus is filled with 95% alcohol for a few minutes, after which it is thrown out and boric powder is insufflated. The object of the treatment is just the same as in a surgical wound treatment—cleaning the parts and promoting healing of the ulcer by attention to septic conditions. With this object in view, several medicines are tried, the object of all being only to combat sepsis—Boric Alcohol drops (20 gr. to 1 oz.) can be used by the patient once at night. And if they smart too much, they can be diluted with water. When granulations are unhealthy and plenty, a mild scraping is carefully resorted to. But in general practice touching them with silver solution (20%) is better. In some cases, dry treatment, cleaning with alcohol and insufflation with boric powder will do good and in some cases, mild irrigation with boric lotion (1 in

200) and some antiseptic drops may suffice. Attention to naso-pharyngeal conditions, to combat any sepsis there, is very important, as otherwise the treatment can never do much good so long as sepsis is being supplied to the ear from nose and pharynx through the eustachian tube. If a case does not respond to the above treatment after a reasonable time, necrotic bone changes or some other causes contributing to inefficient drainage must be suspected—then it becomes an aural surgeon's case.

If a chronic case of middle ear suppuration shows frequent acute exacerbations with pain or if the discharge is out of all proportion to the middle ear lesion with mastoid tenderness, it should be taken as evidence of spread of infection and mastoid operation is indicated.

These articles are written, at the request of the *Editor, I.M.J.* with a view that it may be of some help to the general practitioner in his daily practice; hence if I did not go into the minute details, which are of interest only to the aural surgeon, I may be pardoned.

Clinical Memoranda

A RARE SYMPTOM OF KALA-AZAR

By DR. GIRIJA PADA BISWAS, L.M.F.

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A Mohammedan child, male, aged 11 months was brought to the dispensary for the treatment of following complaints.

- (1) Intermittent fever of one month's duration.
- (2) Enlargement of Liver and Spleen.
- (3) 50 % of hairs of his scalp were grey—almost white.

I was really astonished to see such grey hair in a child of that age. I examined the case and though I suspected the case to be Kala-azar I put him under anti-malarial treatment for 12 days, but with no effect. A powder containing Equinine, Ferri Arsenas, Pulvis Ipecac and Rhei were given in proper doses during apyrexial period.

The anti-malarial treatment having thus failed, I examined the child's blood and found Col. Chopra's test positive.

Fortunately the Veins at the bend of the elbow were prominent and I began to inject

urea-stibol intravenously. Altogether 12 injections were given, six of 01 grm. each and the other six of .025 grm. each. The temperature came to normal and the Liver and Spleen were very much reduced at the end of treatment. *The most astonishing thing, however, was that the grey hairs turned black after treatment for Kala-azar.*

Remarks : My object in publishing this case is, that, though I treat at least 300 cases of K. A. a year in this dispensary, yet, this was the first case which had the remarkable symptom of grey hairs, obviously due to Kala-azar as the result of treatment indicates. I hope I am not wrong in this conclusion.

SOME COMMENTS IN THE USE OF FILIX MAS FOR TAPE WORMS

By DR. PRIYO GOPAL MUKHERJEE, L.M.F.

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That the use of Felix Mas for Tape worms is not safe under certain conditions will be evident from the following illustrative case.

A Mohammedan male, aged 38, was suffering from irregular fever for 3 years. He complained of passing melon-seed-like things in his faeces. He also complained of indigestion, loss

of appetite, flatulence, sometimes diarrhoea, palpitation of the heart, and gradual loss of strength.

My Clinical examination of the patient revealed the following :—

- (1) weak, pale and emaciated.
- (2) Tongue coated and moist.
- (3) slightly œdematous feet.
- (4) Spleen, greatly enlarged, 2" below the umbilicus. Liver also was slightly enlarged.
- (5) Heart, hæmic murmur present.
- (6) Temperature, normal in the mornings; 99° to 100° F in the evenings.
- (7) Pulse 92, Respiration 23 per minute.

The treatment I gave was as follows :—

Firstly, I treated his indigestion and flatulence with carminatives but with no effect.

Secondly, I treated his fever with Quinine, Iron Etc. The fever subsided.

Thirdly, after some days I gave him a saturated solution of Mag sulph (1 oz.) thrice daily for two days. Diet—Milk and Sago. On the third day I gave him the following mixture.

Ext Filicis Liquidum	ms xxx
Gum acacia	Q. S.
Aqua ad	oz. 1.

After taking two doses of the above mixture at half an hour intervals, a tape worm came out which was alive and measured 30 ft. long. I gave him a third dose of the mixture. 15 minutes afterwards he passed another motion but no worm came out. I gave him then the final dose of Mag sulph.

Four days after this treatment, the patient developed jaundice which progressed rapidly and on the 12th day after this complication he unfortunately died from intestinal hæmorrhage.

That he died of toxic infective jaundice is apparent but how far filix Mas was responsible in augmenting this condition cannot be definitely determined.

Yet it would be safe not to administer it, albeit of the obvious presence of the Tape-worm,

- (1) In weak and anaemic patients.
- (2) In patients suffering from kala-azar, typhoid fever, black-water fever, septicæmia etc.
- (3) In patients who had a history of jaundice.
- (4) In patients who are suffering from gastro-enteritis or entero-colitis.

The above illustrative case will show that Urine and Blood should be examined for bile before giving Filix Mas.

Filix Mas contains Filicic acid and Aspidine of which Filicin is the active principle. The drug when taken by mouth is not much absorbed by the stomach and remains in the intestines to exert toxic action on the tape-worm. It does not actually kill the worm but lowers its vitality and drives it to the large intestines, so that, when this drug is followed by a smart purgative the worm is easily expelled. It should however be remembered that Filix Mas is soluble in alcoholic and oily preparations and that the patients should therefore be warned from them during the course of treatment. It is in these soluble media that Felix Mas tends to get absorbed and produces toxic symptoms, such as colitis, jaundice, nephritis, muscular weakness and even collapse. It should also be remembered that, if the first course of treatment does not expel the worm, the second course should not be begun too quickly—at least a ten days' interval should be maintained.

Practical Suggestions and Reminders

(Continued from the previous issue)

17. *Sub-acute or Chronic Appendicitis.*—Such a case without recurring attacks of colic is often difficult to diagnose. Dyspeptic symptoms due to this condition are often mistakenly attributed to neurasthenia or duodenal ulcer. The wasting, loss of weight, cachexia and low fever are mistaken for chronic tuberculosis. X-ray is to be sought to aid the diagnosis. If it is not available, a white blood

count often gives a valuable hint in pointing to the existence of inflammation. Once properly diagnosed appendicotomy should be performed.

18. *Dangers of Blood Transfusion.*—Blood transfusion is now more commonly done than before. Scientific advance has practically minimised its dangers. Yet they should be borne in our mind. They are.—

- (1) Incompatibility of transferred blood.

(2) Transmission of disease from the Donor's blood.

Incompatibility is avoided by blood-grouping tests. In every big clinic tested universal Donors are made available. The two important transmissible diseases—important because of their common prevalence—are syphilis and malaria. Wassermann's test and examination of the peripheral blood for M.P. may be sufficient. But those who know the fallibility of these tests will or ought to concede that transmission of these diseases to the patient is possible in some cases.

19. *Diabetic Coma*.—Its treatment, thanks to Insulin, has become simpler; but the results, as before, are uncertain, though Insulin has got many successful cases to its credit. If death occurs even in spite of Insulin, it is due to one or other of the following reasons:—

- (1) Failure to combat Hyper-glycæmia and Ketosis.
- (2) Kidney damage leading to retention of urea and onset of uræmia.
- (3) Circulatory failure.

A practical plan of treatment will be as follows:—

- (1) Preliminary Blood-Sugar estimation is made. For this purpose Dr. Bose's bed-side apparatus is very handy. It is also very cheap.
- (2) An initial dose of 40 units of Insulin is given.
- (3) Subsequent doses of Insulin are adjusted according to the percentage of Blood-Sugar.

If blood sugar estimation is not possible, as it is in general practice, glucose should be given either by mouth or by the vein to combat Hypoglycæmia which may result after Insulin administration; otherwise glucose is not necessary. If there is pronounced de-hydration, Saline infusion is necessary with a drop or two of Adrenalin. Big doses of alkalies are injurious as they often fail to stop ketonuria. A dram of sodi-bicarb to a pint of distilled water given intra-venously will be found sufficient to check the acidosis, together with Insulin

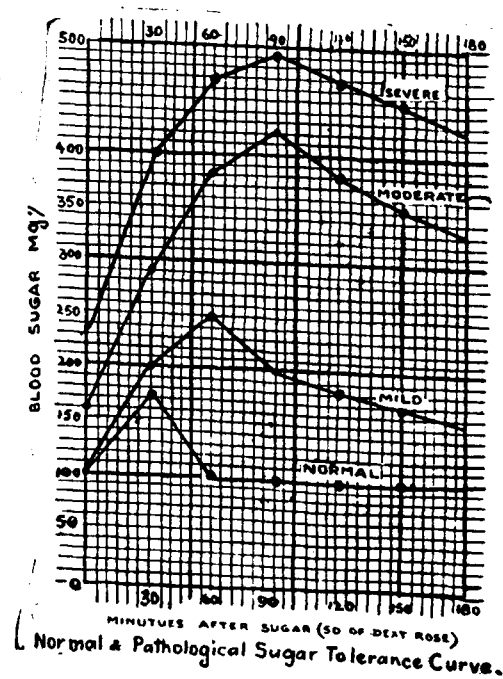
and Glucose. Strophanthus may be required in cases of cardiac failure.

The aim of treatment in diabetic coma is to bring a comatose patient back to consciousness—and not complete eradication of glycosuria.

20. *Kidney Threshold*. This may be normal, low or high. It is said to be normal when there is no sugar in the urine and when the blood-sugar is only about 180 Mg. %: low when sugar can be detected in the urine even when the blood-sugar is within normal limits: high when sugar cannot be detected even though the blood-sugar is as high as 200 or 250 Mg. %. It is therefore obvious that diagnosis of Diabetes Mellitus should be confirmed by blood-sugar estimation—i.e., a sugar tolerance test after 50 G. of Dextrose. Urinary sugar test should be considered as only the first hint at diagnosis and should be confirmed by sugar tolerance test.

21. *Normal and Pathological Sugar Tolerance Curve*.

The following diagram is self-explanatory.



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COL. H. W. ACTON

By the death of Lieut. Col. Hugh William Acton, C.I.E., I.M.S., Director of the School of Tropical Medicine, Calcutta, India loses one of the brilliant research workers in the field of Tropical Medicine. His passion for research, his zeal for work, his prodigious industry, the sympathy and understanding which he unfailingly showed towards his colleagues and those who worked under him will, for a long time,



remain unequalled. It is not that he made any sensational discoveries on account of which he became suddenly famous; but his call to fame came through persistent work and inquiry in fields where the whole truth was not known or where it was imperfectly grasped. It came to him without his knowledge. He was a practical worker with an eye to practical results. Theory and dogma might, sometimes, have commanded his respect but never his acceptance till the whole thing was proved true by observation, experimentation, and application. He did not stumble into discoveries by a stroke of fortuitous chance but

by careful scientific analysis and verification of results by other workers. All these will naturally involve a tremendous amount of intellection and industry, perseverance and patience. He possessed these qualities in abundance and applied them in the pursuit of human knowledge and in the relief of the suffering.

Of athletic build and endearing manners, remarkably youthful in appearance and happily devoid of patronising attitude, he easily won the affection of those with whom he worked and of the people of Bengal where he had spent the best part of his service. As a Professor in the Calcutta School of Tropical Medicine, he earned the respect and admiration of his students from all parts of India. As a researcher, he was well-known for his quick and intelligent grasp of the problem on hand, for the accuracy of his statements and sobriety of judgement. As the Director of the Tropical School of Medicine he was an invaluable counsel and guide to all those who were engaged in research in that Institution in its various departments.

Born in 1883, he received his general education partly at Gravesend and partly at Bedford. He received his medical training at Middlesex Hospital and had a distinguished record as a medical student. In the competitive examination for I.M.S. he stood first and he entered this Service in July 1907. The child was already the father of the man.

The first three years of his service was spent in the Military in the North-Western Frontier. In July 1910, he was posted to the Pasteur Institute of India as its Assistant Director. Here it was that he in conjunction with Col. W. F. Harvey, the then Director of this Institute, worked for two years to evolve a satisfactory Anti-rabitic Vaccine. At that time the Anti-rabitic inoculation was not free from danger and the methods of storage, preservation and preparation were also equally un-

satisfactory. Col. Acton, in collaboration with Col. Harvey, Sir David Semple and Major Fox introduced the Carbolic Vaccine which is even to-day the standard and reliable Antibiotic prophylactic in spite of recent attempts at modification by etherisation. His early work on the Negri Bodies of Rabies had foreshadowed much of the later work on diseases caused by filtrable Viruses.

When, in 1912, Col. Harvey was transferred to the Central Research Institute, Kasauli, Col. Acton succeeded him as the Director of the Pasteur Institute of India. In his place, Col. Knowles was posted as the Assistant Director. This combination was both fortunate and propitious. To those who had closely followed developments and investigations in modern Tropical Medicine, it is not possible to think of Acton without being reminded of Knowles. They worked together in this institute on various subjects, ranging from snakes and snake venoms to latent malaria in man, hill acclimatization, Bird Malaria etc. Acton's outstanding contribution during this period was the now famous memoir on Snakes and Snake Venoms. This memoir bears the mark of industry, keen observation, zeal for greater knowledge on obscure subjects and the desire to know the ultimate truth. As Col. Knowles once said : *

"It took ten years to get a new discovery into the text books and thirty years or more to get a mistake out of them. I am glad to see that Col. Acton's early work on snakes and snake venoms is now getting into the text books; his other works would get there in time and would profoundly influence the development of Tropical Medicine."

He was once again reverted to the Military in 1916. But to one who was imbued with a zeal for research and knowledge, nothing was an impediment. He was posted as pathologist and surgical specialist at No. 12, Indian General Hospital, Amarah, Mesopotamia. Oriental Sore and Sand-flies attracted his attention this time. He observed that the sites of sand-fly bites closely correspond with the sites of ulcers. The identical Leishmania Tropica was found in the ulcer as well as in the Sand-fly. He therefore postulated, which is as yet uncontradicted, that the sand-fly was a Vector of Leishmania Tropica and that its bite caused local lesions of ulcerative type, known as Oriental Sore. Since then, Sand-fly has become a close suspect as a Vector of Leishmania and we are all familiar with the

recent researches leading to the incrimination of Sand-fly as the cause of human infection with L. Donovan, though definite conclusion has not yet been reached.

He returned to India in the year 1918 and was posted to the Malaria Convalescent depot at Dgshai. This town is situated at a high altitude where re-infection with Malaria can reasonably be excluded. It was thus a suitable place for the study of the relative and comparative efficacy of quinine and other cinchona alkaloids in the treatment of Malaria. He grasped this opportunity, as was his wont, and turned it to useful purpose. He discovered that the other much neglected alkaloids of cinchona were as effective as quinine, if not more. The latter is very costly while the former is comparatively cheaper and therefore within the reach of poor people who will otherwise go without treatment. Herein lies the significance and importance of this piece of work. He also found that prior administration of alkalies would give better curative results than with cinchona alone, besides the other advantages of alkaline medication, namely, its influence in minimising the anaphylactoid malarial paroxysm, in lessening the symptoms of cinchonism, in maintaining the alkaline balance of blood and in minimising relapses. These preliminary observations were further confirmed by him at the Laboratory of Medical Research Institute at Hampstead. He was thus the forerunner of the now famous Sinton's Cinchona-alkaline mixture.

Just three years after this, in the year 1921, he was appointed as the professor of Pathology, Bacteriology, and Helminthology at the Tropical School of Medicine, Calcutta. He had now come to his own, relished this new atmosphere of research and fully utilised the opportunities before him for further work which has made him so famous. His work at this Institute is still fresh. There is no doubt that much of it will be appreciated and approved in course of time. Epidemic dropsy, Filariasis, and various tropical skin diseases were studied in conjunction with his other colleagues of the School. Much debris has been cleared though more remains yet.

He became the Director of this School in 1928. In this capacity, he showed himself, not only as a first class researcher, but also as a great organiser and administrator of a Research Institute. He built up a splendid dermatological clinic for which he gathered a wealth of bacteriological and pathological material. He founded a department of medical Mycology, the first of its kind in India. He organised the other

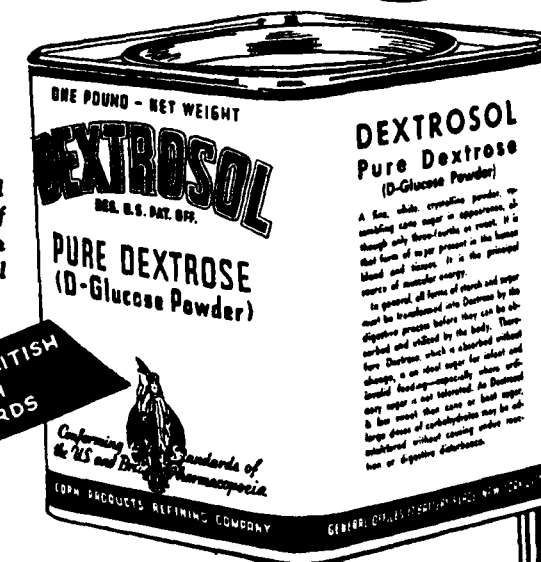
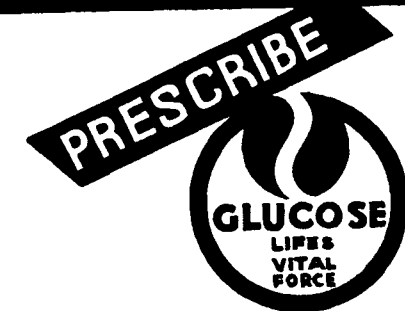
* I.M.G. Vol. LXVI, No. III, page 158

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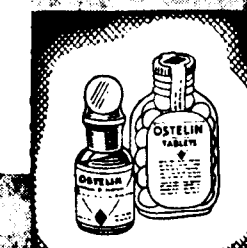
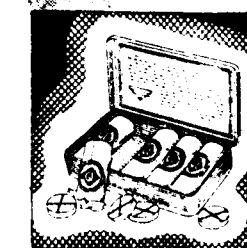
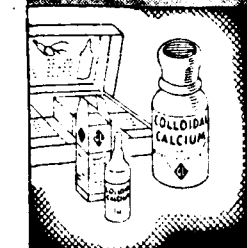
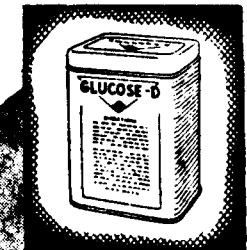
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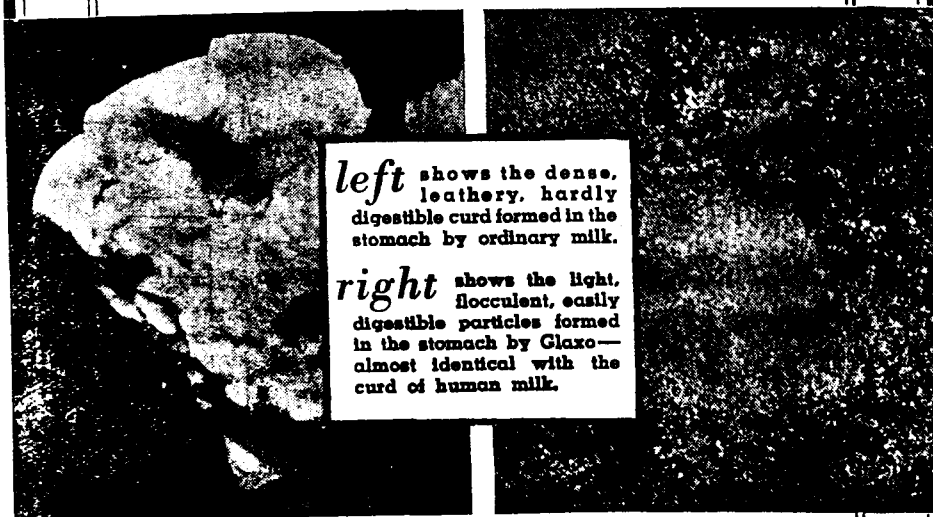
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(Hutchinson. "Lectures on Diseases of Children," and Ed., p. 39.)

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departments of the School, led the workers by precept and practice and imbued them with a missionary zeal for sacrifice and devotion. He solved their doubts and difficulties by a timely suggestion or a useful hint which will put them again in the right tract. He became their natural leader and was looked upon by his colleagues with oriental reverence.

His death has left a gap in the field of medical research in India. We will miss his familiar contributions in the pages of the *Indian Medical Gazette* and the *Journal of Indian Medical Research*. He will be remembered with gratitude and reverence by Indian Medical Profession and his works will ever be to us a reminder of his charming personality, his genius for research, his quick, almost an intuitive, grasp of intricate problems and his extra-ordinary kindness and generosity towards those who worked with him and under him. Col. Knowles sums up his personality in the following words*, which we fully and respectfully endorse:—

"I disagree with the usual definition of genius as 'an infinite capacity for taking pains'; in scientific research I would rather define genius as 'an ability to see further through a brick wall than any one else'. Give Col. Acton a problem at which other research workers had been bungling for 20 years, and he would soon grasp the essentials of the problem, outline a programme for investigation and then get the right man to work at it".

May his soul rest in peace!

THE PROBLEM OF QUACKERY

While it is no doubt true that quackery is more common in India and on the side of this continent than in Europe and America, it is not totally extinct in the latter countries. The most favourable soil for quackery is the credulous mind of man and its prevalence is directly proportional to the degree of human credulity, brought about by a concatenation of causes—such as, want of education, weakness of mind, belief in the reported success of such a treatment and the specious sophistry of the quack. We have seen that even some of those who are highly educated fall easy victims to popular quacks, especially when they are suffering from some chronic incurable disease.

Quackery, however, cannot be easily or satisfactorily defined. At best it can be defined by a series of negations. Ordinarily it means, pretensions to medical skill or knowledge. But the nature and the standard of medical skill and knowledge always vary, not only among the votaries of one particular system, as for example, allopathy, but among those who believe and practice different systems of medicine, Ayurveda, Unani, Homœopathy, Siddha and so on. It is not reasonable to call any of these as quacks.

There are some free lances in every country who evolve a system of treatment for all diseases to which the flesh is heir and who carry on a lucrative and open trade, untrammelled either by law, society or their own conscience. Does the quack fall within this group? Obviously yes.

In other words a quack is one who does not follow any system of medicine, modern or ancient, but evolves and follows a system—if it can be so called—of his own which may be the result of his own particular but uncorroborated experience or may be a sheer concoction of his imagination imposed upon a gullible public. Thus, the quack may be said to be of two types, one whose special claim is his experience of a system of treatment albeit it may be his own; the other is a sheer pretender to medical skill and knowledge in which he has got neither belief nor experience. Both these types are ubiquitous in India for reasons which shall be discussed presently and to a lesser extent in Europe and America.

The first type is not less dangerous than the second. Their pretensions differ but in degree. Both exploit the weak state of the mind of a patient who is naturally susceptible to mental instability during disease. Both take credit for results which rightly belong to *Nature*. Both attribute the unsuccessful results to indiscretion and negligence of the patient to the so called "directions" of these quacks. Law has still to invent its weapons of attack against these pests without any offence to the natural rights of man. Society is indifferent. The victim takes shelter under the solacing doctrine of Inevitability of Fate. The result is, the human tragedy continues.

There is one fundamental difference, however, between these two types of quacks. The first is aggressively bold, decries openly all other acknowledged systems of medicine except his own and boldly challenges to offer cure where scientific remedies had proved a failure. The other sneaks his entry and exit as per the

* I. M. G. Vol LXVI. No. 3, Page 157

circumstances that face him. The first type, therefore, is decidedly dangerous and is difficult to eradicate, because it lives and thrives on the partial or complete success, apparently due to his treatment, but really due to natural causes.

To this type belong the various "specialists": the osteopath, the barber surgeon, the country Dai, the massage curer, the bone setter, the spleen and liver specialist, those who claim to cure appendicitis, hydrocele, hernia etc., without an operation and so on *ad nauseum*. The struggle between the Osteopaths of England and the British Medical Council is well known. They even claim the right of medical registration in that council. The bone setters in the different rural parts of India are familiar to the practitioners and we have seen with our own eyes the number of patients, not inconsiderable, they treat daily in one or two centres we visited some years ago. The profession is practically hereditary among them and the technique is kept as a closed secret. We had closely observed their methods of reducing a dislocation or setting up a fracture, and we had also examined some of the convalescent patients with a view to find out the result of their surgical art. They practice manipulation, attachment of weights, bandaging, massage etc., in a crude manner and any successful result out of these procedures was more probably the result of sheer chance than to the principles of their art. We particularly remember a case of a fracture of Spinal Column being buried up to the neck as a method of treatment. The Dai is a well known figure in Indian homes. The spleen and liver specialists have become quite common, at least in this presidency of which we have got some knowledge. The wonder of it is that these liver specialists diagnose enlargement of these organs by mere sight and say: *this is 4 months spleen, that is 6 months liver*. It is not uncommon to find in our practice, parents bringing their child for examination to us to find out whether the spleen or liver or both are still enlarged *even though it is under the treatment of the spleen and liver specialists*. Every child taken to their "Clinic" is suffering from enlargement of liver and spleen—a pre-determined diagnosis which calls for neither proof nor logic. Treatment has perforce to be given and *his is the best*. None can doubt or question; the disease must get cured, if not with one course of Rs. 10/- cost of powder, with two or three such courses! Let us hasten to state that the daily number of children who are treated by these specialists is really considerable. But the relief obtained is,

as a rule, imaginary. We can multiply instances of these "Specialists" in all types of disease, but we stop.

Apart from psychological cause, to which we referred earlier, the other causes that breed quackery in India and make it live are, chiefly, the illiteracy of the masses, the prevalence of too many systems of medicine—time honoured but not passed through the crucible of modern science,—the apathy and indifference of the people and lastly the unwillingness of the Government, being foreign, to interfere owing to its natural anxiety not to wound the susceptibilities of its subjects.

"Treat the cause" is a well known principle of treatment. If quackery, therefore, has to be rooted out from this land, the causes that produce them have to be tackled. But these are so subtle, so complex, so baffling that, we consider in our moments of despair, it will be an impossible task. Yet, it has to be undertaken if disablement and death are not to be the lot of people who are beguiled to be treated by type I or type II quacks.

It is said by some who ought to know better that religious superstitions of the people of India are a barrier against progress in the eradication of quackery in this country. Superstition is not a peculiar feature of our people alone. It is, in truth, a common frailty of an average man of this *Terra Firma*. It is the excesses of superstition and the resultant weakness of mind that are partly responsible for the perpetuation of quackery in this land for the last three or four centuries. We shall answer the apologists of quackery in the words of that militant monk of India, the Swami Vivekananda, who when told by a friend:

"I think that indigenous drugs such as vairs use are well suited to our constitution"

replied:

"My idea is, that it is better even to die under the treatment of a scientific doctor than expect recovery from the treatment of laymen who know nothing of modern medicine, but blindly go by ancient books without gaining a mastery of the subject, even though they may have cured a few cases."

This has been the spirit of Hinduism and it is not fair to lay to its account the putrid excretions of abnormal beliefs and abnormal superstition that have been evolved by a play of known and unknown causes.

If, therefore, suppression of quackery has to be achieved we have to begin with three things.

*The complete works of Swami Vivekananda—M. M. Edition, page 221.

1. Education of the people on proper lines,
2. More active spread of modern medicine and to acquaint the people with the benefits thereof,
3. Consolidation of all acknowledged systems of medicine, ancient and modern, into one scientific system.

We shall discuss these items briefly.

1. *Education*.—It is not literacy alone *i.e.*, ability to read the alphabets, that we understand by education. The school boy, from the very beginning of his education, must be taught the principles of hygiene in progressive stages suited to his age and the class in which he reads. By the time he reaches the high school class he must understand the advantages of hygienic living and scientific treatment. Adult education, by means of lectures and propaganda must also be simultaneously instituted and this must enter the country-side vigorously where quackery is rampant. The result of this education is a question of time. Our educational authorities should take up this aspect and tackle it more seriously and with greater enthusiasm than what appears to be the case at present. An intensive practical teaching should be introduced instead of mere theoretical platitudes in the class room. The boys should not only be taught and examined but the teacher should see that they practise what they are told. The suppression of quackery depends on the extent and influence of such education given.

2. *More qualified doctors and hospitals*.—The insufficient number of qualified doctors makes it possible for the quacks to practise; unless the latter are replaced by the former, the people are not likely to give up their allegiance to quackery. This we consider as one of the most important reasons for lesser prevalence of quackery in the west, where doctors and hospitals are fairly distributed among the population. In India, however, there are about 45,000 qualified practitioners for 300 millions of her population *i.e.*, 1 in 6666·7. Hospitals are few, centered round important cities and mofussil towns and are generally inaccessible to villages. Hospital attendance is still not satisfactory, though it is progressively increasing in recent times—illustrating the fact that given opportunities for scientific-medical relief rural folks will rise to the occasion and give up quackery. The Rural Medical Relief worked under the auspices of the Madras Government is a happy scheme which is capable of killing quackery in course of time. But the way in

which it is worked has despoiled it of its attractiveness to sacrificing and self-respecting medical men and therefore its usefulness and further progress. If the policy of the provincial Governments is a little more generous and vigorous than what it is at present, perhaps due to economic stringency and other considerations of expediency, the problem of the suppression of quackery is but a question of a short time, say a decade or two. We are quite sure that the Government realises the importance of this problem but its lethargy and indecision have been a stumbling block against progress in this direction. We appeal to it to bestir itself in the matter not only because it is the primary responsibility of the State to guard against lives being avoidably lost, but also because it is within its capacity to initiate a scheme of organised medical relief.

(3) *Consolidation of the prevalent systems of medicine into one scientific whole*.—The systems of treatment practised within India are quite a great number. The vast majority of the people of India are still attached to their traditional systems, which, whatever might have been their past claims, have been languishing owing to historic causes and have evolved such dangerous accretions that unless they are removed and the systems pass through the filter of modern science they are capable of much harm to human life. We cast no aspersions against Ayurveda or Unani, Tibbi or Siddha; but we will be untrue to ourselves if we do not give out our apprehensions, that, unless these are confirmed or corrected by the present accepted canons of scientific research they are not likely to survive the onslaught of time and co-incident progress. The way in which these systems are catered to by the various provincial Governments—notably of Madras—under the spell of so-called public opinion, does not seem to help these systems in a material manner. Mere opening of Unani or Ayurvedic hospitals or mere registration of these physicians in a separate register does not constitute a serious attempt to assess the scientific value of these systems of medicine. Unless this is done, it is impossible to resuscitate them. And the only way to do it is by assimilating what is best in them and making them a part of the scientific medicine which commonly goes under the name of allopathy. We do not like the term Allopathy—we would rather prefer to use a general name such as scientific medicine. We are not competent to say whether such a wholesome combination is possible; but we wish it were possible, so that lingering remnants of traditional systems of medicine

may not lull the suffering public into a false sense of security.

We have refrained from putting "legislative measures against quacks" as one of the items in this outlined campaign against quackery—and advisedly so. It will be like putting the cart before the horse. We have often heard many medical associations in India discussing this question and resolving to urge the Government to take steps against quackery. But questions like these cannot be solved easily by the Government, unless a strong public opinion backs it and until the medical relief given by the duly qualified practitioners of scientific medicine (allopathic) is more extensive than is actually the case at present. These two conditions are, to our mind, essential if the Government can boldly initiate legislative enactment against quacks. Besides, the Government will have the real legal trouble of precisely defining who are quacks and what is quackery and without such a precise definition it is not possible to enact a law in this respect. But there is one method by which even the present code of laws can be invoked and about which many are ignorant in India. Suppose one is treated by a quack and there is a misadventure, the patient can sue him for civil damages and in some instances for criminal injuries. But this is a procedure rarely adopted by the proverbially patient and forgiving Indian and thus the miscreant escapes even this only process of law. Even if this existing law is utilised by the victims to quackery, to that extent it will act as a check against its spread.

Direct legislation against quackery, for the above reasons, we consider as impracticable. We are definitely of the opinion that the necessary public opinion is not sufficiently strong to back any such act of legislature. We are not at all sanguine that it will even evoke favourable comments from any appreciable number of the members of either provincial or central legislature. The names of *tradition, history, habits* etc., will be invoked: the cry that personal freedom is endangered will reverberate in the Council hall. And if by sheer chance or a fortunate accident the measure passes successfully through the legislature it will be like "The Sarada Act" ineffectually and feebly enforced.

Not that we are against such a legislative enactment, but that we believe that if such an enactment is to be of practical value, the public must first be educated enough and their co-operation has to be obtained before

we can seek legislative interference. Otherwise it is foredoomed to failure.

This is the reason why we had laid so much stress on the spade work and unless that is undertaken by those who are interested in the suppression of quackery, we can never hope to tackle it with even a small degree of success.

Current Comments

India is, perhaps, the only country among the civilised countries of the world where the Medical Services are artificially divided into mutually exclusive compartments. In the picturesque words of Col. Bhola Nauth*

"The Medical Administration of India, as we find it to-day, may be compared to some medieval village which was built without plan or design by some bygone chief in medieval times. In the course of ages, the village has grown into a town, by adding suburbs of modern villas and antiquated hovels. But in all this extension, it has retained its medieval character, its crooked streets and narrow alleys. In the middle of this confusion of old hovels and new buildings, stands the baronial hall. The hall is a superb pile of buildings but quaint and antiquated untenanted except by the ghost of a bygone past. Now if you wish to modernise the town, you must prepare a well thought-out plan of reconstruction, and secure an honest improvement trust; knocking down the baronial hall will not modernise the town."

The Medical Service is divided into many parts: The Indian Medical Service, the Provincial Medical Service and the Subordinate Medical Service. There is also the Indian Medical Department—rather a curious designation—purely military and constituted of military Assistant Surgeons (mostly Anglo-Indians) and Sub-Assistant Surgeons.

The Indian Medical Service is essentially a military service. But in reality it is partly military and partly civil. The appointments to this Service are made by the Secretary of State for India and those who enter this cadre must necessarily possess a British Registrable Qualification. A certain percentage of civil posts is reserved for them. And this percentage

* Presidential address before the 11th All India Medical Conference, Delhi.

small as it is, yet covers almost all the administrative and important posts in the Medical Department. The First Surgeon or The First Physician of a big General Hospital is invariably an I.M.S. Officer. The Surgeon-General or the Inspector-General of Civil Hospitals is necessarily from the ranks of the Indian Medical Service, not to say of the many important Civil Surgeoncies and Research posts which are usually reserved for them. It is strange that, even from within this cadre, it has not yet been found possible to select an Indian I.M.S. Officer to the post of a Surgeon-General or the Director-General of Indian Medical Service.

While we write these comments, news reaches us that Lt. Col. Chopra has been appointed temporarily as the Surgeon-General of Bengal. So far as we know, this is the first time when an Indian is appointed to this office. We sincerely trust that this will be a harbinger of many good things to come from our Government.

India owes much to the members of the Indian Medical Service. They were the pioneers of Medical education in this country. They were and are even today, responsible for much research and investigation in the Tropical Diseases of India. None can easily forget the names of Ross and Rogers, Acton and Donovan, and a host of others. All of them belonged to this Service.

But the times have changed. Medical education in this country has progressed vastly and is in no way inferior to the kind imparted in Great Britain. Our Universities and Medical Schools naturally and justly resent any inferiority status and the perpetuation of a state of affair, justifiable a century ago but for which no justification exists at present. The Indian Medical Profession naturally feels reluctant to commit suicide out of respect to or as a token of gratitude for the services rendered by the Indian Medical Service.

The question therefore arose, that if the Indian Medical Service is essentially a Military Service, why should even a small percentage of

Civil posts be reserved for its exclusive enjoyment. A satisfactory answer is yet to come.

Let us look at this question from a different point of view. Medicine and Public Health are transferred subjects and elected Indian Ministers are in charge of the same. We wonder whether any one of them in any one province had any real voice in the appointment of the Surgeon-General. They could have at least insisted on the appointment of an Indian I.M.S. to that post in some provinces at least. We are not at all examining this question from a racial point of view. On the other hand, we complain that *racial distinction* is unfortunately maintained in a Service whose members have got equal qualifications, rights and privileges. Is it possible that there is not one Indian I.M.S. Officer capable of acting as the Director-General of Indian Medical Service or at least as a Surgeon-General?

If this is a far off cry one can easily imagine how still far off is the cry of removing the I.M.S. from the Civil list of appointments altogether. Both these questions have to be tackled seriously and satisfactorily—and with fairness and equity to all concerned. That is the first step in any reform of medical administration in this country which our Government may initiate. But unfortunately even the new Reforms Scheme of 1935 has not made the position any better. The right of appointment still vests in the Secretary of State for India, Certain Civil and administrative posts are reserved for this Service, as before. The Indian I.M.S. Officer is theoretically at no disadvantage as compared to his British colleague in the same Service; but in actual practice, he will perhaps remain as before.

Whatever may be the justification for maintaining the *Status Quo* of the Indian Medical Service, we feel that the Indian I.M.S. Officer should be given the chance to hold even the highest administrative posts which are now rarely or not at all given to him. This will be a step in the right direction. If compartmentalism in Medical Services cannot be avoided under the present circumstances, no differences at least should be made to exist in practice between the members of the same Service.

Notes and News

The Silver Jubilee Fund in India

H.E. the Viceroy and Lady Willingdon sent the following telegram to His Majesty the King Emperor on the 13th September 1935.

"We are indeed happy to inform Your Majesties that Your Majesties' Silver Jubilee Fund has reached a splendid figure of over one million pounds, thus ensuring that Your Majesties' Silver Jubilee will live in the memory of your Indian subjects by extended and improved means of medical relief which the great occasion has enabled them to be provided with."

His Majesty the King Emperor has replied:

"The Queen and I are delighted to hear of the magnificent response to the Silver Jubilee Fund in India, by which medical resources of the country will so greatly benefit. We heartily congratulate you both on the splendid success of your efforts."

As we wrote in our Editorial on the Silver Jubilee, this act of Their Majesties is a proof of their unsurpassing compassion. We are quite confident that the fund will be utilised for what it is intended and if we may offer a suggestion, a part of it may be given to help some of the languishing research departments while the rest may be usefully spent in organising an extensive scheme of Rural Medical relief throughout India. Rural hospitals are needed more than City General Hospitals.

Reform of Medical Curriculum in Great Britain

Some of us are probably under the impression that Medical Education in England is almost ideal. *Distance lends enchantment to the view.* We had discussed this question with a few of our medical men who had returned from England after acquiring the highest qualification and we are led to conclude that our education here, even as it is at present, is in no way inferior to the one obtained in the *United Kingdom*. Few years ago, there was a Conference of Medical educational authorities of England on which were also represented the Universities of Oxford, Cambridge and London, as well as the Royal Colleges and the Society of Apothecaries. Lord Dawson of Penn presided. This conference has recently issued a report embodying their observations and suggestions towards the improvement of medical curriculum about which there was a wide-spread dissatisfaction. We invite the attention of the Medical Faculties of our Universities and of those who are in charge of Medical Schools to this report which is well authenticated and comprehensive and full of wise suggestions and directions. The faults

of medical education in this country are same as and a little more than those of British Medical education. For, after all, ours had been and is a blind imitation of the British model. We shall comment on this report in our next issue.

Lt. Col. R.N. Chopra

We are extremely gratified to learn that Col. Chopra has been posted to officiate as the Surgeon-General with the Government of Bengal. He is probably the first Indian I.M.S. Officer to occupy this position. There is no doubt that he richly deserves this. All of us are familiar with the Drugs Enquiry Committee, the success of which was mostly due to Col. Chopra. His reports in that connection have become classic. As a Professor of Pharmacology in the School of Tropical Medicine he has done excellent work in assaying the physiological and therapeutic value of both old and new drugs. We take this opportunity of offering him our hearty congratulations.

Sir Aldo Castellani

He was a former Director-in-Chief of the Ross Institute and Hospital. He was recently appointed as the Chief Health Consultant of the Civil and Military population of Italian colonies in Africa. He is now called up for temporary active service in the impending war between Italy and Abyssinia.

A true observation

Sir Mirza Ismail, Dewan of Mysore, while opening Dr. S. Rajan's Bacteriological Laboratory at Bangalore on 2-9-35 observed in the course of his address:

"Speaking as a mere layman, I find there is a tendency among specialists always to find in patients symptoms of one thing in which they had specialised. But *fortunately* (italics ours) there is a corrective in a large number of experienced practitioners. Speaking as the head of the Government, I do not look askance at what might perhaps be regarded as a rival institution to the Government hospital. The Medical department would welcome it. There is far too great a tendency in Mysore for the well-to-do public to look to the Government Hospitals for medical aid. The resulting strain in the State's finances and on the hospital resources is enormous. Even outside the hospitals, the Government doctors

are far too good-natured, giving their services for nothing. If the great and self-respecting medical profession is to grow up in the State it must grow up on a basis of adequate payment for services rendered."

What is true in Mysore is also true in British India. The Government hospitals are mainly intended for poor people; but as things stand now, the richer people enjoy what is due to the poorer. The result has been the starvation of the Independent Medical profession. It is high time that the provincial Governments should prevent the rich people from seeking free Government medical aid in their hospitals. This will give the necessary relief to the poor folks who have no wherewithal to pay for any kind of medical aid, while at the same time it will put the independent medical practitioners to their legs. The present deplorable state of the private practitioners is due to this wrong kind of charity.

Medical Inspection of the Corporation Schools, Madras

The Corporation staff of medical inspection of schools consists only of six medical men. The strength of the school-boys is about 35,000. This staff is obviously insufficient. The commissioner of the Corporation pointed out this insufficiency to the Council at one of its September sittings. He said that it was not only insufficient but also ineffective for the simple reason that the present small staff could not find time to do justice to the work. It is a pity, however, that the Corporation Standing Committee (Education) had to recommend the postponement of this question of increasing the present staff "in view of the present financial position". If the present financial position is so bad, we venture to suggest that private medical practitioners of the City may be engaged to the extent necessary on an honorarium of Rs. 30/- per month as part time medical inspectors. We are quite confident that there will be an enthusiastic response from the practitioners but we are not so confident that the Madras Corporation will entertain our suggestion and give it a trial. If, fortunately, our suggestion is entertained we do not want the Corporation authorities to divide the Independent Medical Profession in this City into Medical Licentiates and Medical Graduates by selecting the latter in preference to the former. It is at present a happy united lot, free from the profanities of service distinctions. We utter this note of warning because, we understand from reliable sources that the Corporation authorities are reluctant to employ the Medical Licentiates as School Health

Officers, though there is no rule or regulation we know of to the contrary.

Many protests against the recent Amendments to the U.P. Poisons' Act.

"Read the Presidents' most urgent circular letter dated 12th June 1935 and General Secretary's circular No. 10 dated 23rd June 1935 in connection with the Poison Rules passed by the U.P. Government and resolved unanimously that all elected members of the U.P. Medical Council be requested to support Dr. Kunj Behari Lal Varma in erasing the Poison Rules from the Statute and that the Mother Association and the Provincial Branch be requested to appoint a special Committee with Dr. Kunj Behari Lal Varma as Secretary to devise and adopt different ways and means to have the new Poison Rules rescinded and that necessary funds be placed at the disposal of this Committee to carry out its objects."

Meerut Branch, A.I.M.L.A., 1st July, 1935.

"Resolved that this meeting of the Meerut Branch of the A.I.M.L.A. records its emphatic protest at the action of the U.P. Government in passing the Amended Poison Rules published under Judicial (Criminal) Department No. 1273/VI-1776 dated 20-9-33 and as further amended in G.O. No. 1000/VI-1776-1930 dated 15-4-35 and published in U.P. Gazette of 18-5-35. As these rules adversely affect the Medical Practitioners who are exempt from the provision of the Poisons' Act under Section 9 (i) of the said Act and are consequently *ultra vires*, it is prayed that the amendments should be rescinded entirely in so far as they affect qualified Medical Practitioners."

Meerut Branch, A.I.M.L.A., 7-7-35.

"Proposed and carried unanimously that this meeting of the Surat Branch, A.I.M.L.A. strongly and vehemently opposes the U.P. Government G.O. No. 1000/VI. 1776-1930 dated April 1935, published in U.P. Gazette of 18th May 1935 formulating new Poison Rules which affect the Registered Medical Practitioners and authorises the President to send a copy of this resolution to the U.P. Government and Local Press."

Surat Branch, A.I.M.L.A., 7-7-35.

"Resolved that the Bhandara Branch of the A.I.M.L.A. strongly protests against the promulgation of the new Poison Rules by the U.P. Government, since they are humiliating to the Medical Profession at large and therefore earnestly requests the U.P. Government to kindly cancel the new poison rules at once and thus save the profession from

disgrace, as they are unwanted and uncalled for and reduce qualified Medical Practitioners to the position of a Poison Vendor."

Bhandara Branch, A.I.M.L.A., 7-7-35.

"Resolved unanimously that the Burdwan branch of the A.I.M.L.A. enters its emphatic protest against the recent amendments to the Poisons' Act of the U. P. Government inasmuch as these provisions are liable to engender contempt and indignity towards the Registered Medical Practitioners."

Burdwan Branch A.I.M.L.A. 7-7-35.

"Resolved that this special emergent meeting of the Mussorie branch of the A.I.M.L.A. lodges its emphatic but respectful protest against the new Poison Rules as published in the U. P. Gazette of 18th May 1935, vide G. O. No. 1000/VI-1776-1930 dated April 1935 as these rules are a direct slur on the whole medical profession and interfere with the legitimate use of poisons to which they are entitled by virtue of their academic qualifications. The rules made are quite impracticable and are neither in the interests of the medical profession nor of the Public. Inspection by Excise inspectors at any time of the day or night is most impracticable and derogatory to the profession. The Government are therefore requested to re-amend these Poison Rules and thus remove the legitimate grievances of the qualified Medical Practitioners. Resolved further that a copy of the above be sent to the U. P. Government and to the Press".

Mussorie Branch, A.I.M.L.A. 7-7-35.

"Resolved that this meeting of the Saharanpur Branch of the All India Medical Licentiates' Association records its emphatic protest against the action of the Government in passing the amended Poison Rules. These rules adversely affect the qualified medical practitioners. They are already exempted from the provisions of the Poisons' Act under section (9) (i) of the said Act and as such these new amendments are *ultra vires*. It is therefore prayed that these new rules should be rescinded entirely in so far as they affect the qualified Medical Practitioners."

Saharanpur Branch, A.I.M.L.A. 3-8-35.

"This meeting of the Bombay Branch of the A.I.M.L.A. emphatically protests against the U.P., G.O. No. 1000/VI-1776-1930 dated April 1935 which has promulgated the new Poison Rules, thereby bringing the entire Medical Profession to direct slur."

Bombay Branch, A.I.M.L.A. 7-7-35.

"Resolved that this meeting of the qualified medical men of Ahmedabad held under the joint auspices of the Gujrat Branch and the Ahmedabad Medical Society strongly protests in sympathy with the registered medical practitioners of the U.P. Govern-

ment against the new poison rules promulgated by the U. P. Government as per their G. O. No. 1000-VI-1776-1930 dated April 1935, whereby undue restrictions are placed on all Registered Medical Practitioners in that Province by the said rules; and requests the U.P. Government not to enforce the said rules as they are likely to entail great hardship upon the Medical Practitioners in that Province; and a Copy of this resolution be submitted to the U.P. Government and to the press for publication."

Under the joint auspices of Gujrat Branch, A.I.M.L.A. and the Ahmedabad Medical Society 7-7-35

Special Articles

CEDEMA*

By DR. M. R. GURUSWAMI MUDALIAR, B.A., M.D.

*Professor of Medicine, Medical College,
Madras*

LECTURE II

General Principles of Treatment

I will take up to-day the general principles of treatment of oedema. Now, why should I talk about the general principles? Because, as you probably might already have guessed, oedemas differ from one another fundamentally. One case perhaps is due to malnutrition where there is lowering of protein plasma and devitalizing of the capillary endothelium, resulting in serous fluid passing through the capillaries into the tissue spaces. Another case of oedema differs from this, say, in a case of cardiac oedema. Here the venous pressure is raised; a certain amount of anoxæmia is found and this brings about the oedema. A third type of oedema differs still further from these: take a case of nephritic oedema, in which you find the oedematous fluid is quite different from the others, in that it contains a very large proportion of proteins; here there is a certain amount of damage to the capillary wall which allows the proteins to pass through and thereby raises the protein content of the oedema fluid and hence it raises the osmotic pressure of the oedema fluid and thereby tends to retain as much fluid as possible outside the blood vessels. Take again another type, the nephrotic

* Published by special permission of the Author—being the second of a series of lectures delivered by him under the auspices of the Madras University Extension Board (1934). His other lectures will be published serially in the I.M.J.

type: there you have got the decreased colloidal osmotic pressure of plasma proteins and the proteins of the oedema fluid are very low. But the result is the same—viz., oedema not due to increased osmotic pressure outside but due to relative increase of osmotic pressure of oedema and so on. We could thus see that there are different types of oedema, each one of which requires a different line of treatment.

To-day I am going to tell you about the general principles on which we work in all cases of oedema. The general principles can be divided into the following five heads:—

- (1) Restriction of such substances in the diet as are known to produce oedema.
- (2) Administration of diuretics.
- (3) Increase the excretion of fluid by means of skin, intestines etc.—i.e., extrarenal or vicarious removal of fluid from the body.
- (4) Mechanical removal of oedema fluid.
- (5) Increase the colloidal osmotic pressure of the fluid.

These are the five headings under which I propose to put before you the ideas that have been handed down to us, modified gradually from time to time as knowledge has advanced.

1. **Restriction of Diet.**—There are two things in the diet which are known to produce oedema and they are salt and water; certainly these two are promoters of oedema. The main idea in the restriction of water is that you must so arrange the intake of water that the amount of fluid taken is somewhat less than the urine output. A water logged person should not have more than 2 pints of water for 24 hours.

Salt must be avoided; but people cannot get on without salt and their palate has to get accustomed to the salt-free diet; so if it is not possible to avoid it, it must at least be very greatly restricted. The individual's taste has been taught to have the salt. So, instead of sodium chloride, you may put in potassium chloride to satisfy the taste.

With regard to the details of water restriction, it should be carried out by carefully noting the intake of water and the urinary output, so that the intake is slightly less than the output, and also by noting the weight of the individual. You must know that long before the actual oedema is seen, the weight of the individual goes up. It is obvious that water retention is occurring if the patient gains weight even under restricted diet, and then water has to be restricted still further. If you had put the patient, say, on 2 pints of water, you would have to reduce

it to 1 or 1½ pints, under such circumstances. Now, how much fluid can you allow? The quantity depends on the function of the kidneys as shown by the sp. gr. of the urine. You do a urine concentration test, and if the sp. gr. is less than 1020, restriction of fluid must not be insisted on, because there is a likelihood of uremia setting in; on the other hand, if the kidney function is good, restriction of fluid is indicated.

In some form of acute glomerulo-nephritis, the occasional institution of what may be called "dry days" may be very useful. By *dry days*, we mean no water at all, or at most about 500 c.c. of water but it must be remembered that excessive fluid restriction has got its own dangers. It may produce extreme weakness, loss of appetite and general irritability. Young children do not stand fluid-restriction well; I have seen in my private practice during summer months fluid restriction in children with fever and oedema induces severe toxæmia, resulting in hyperpyrexia. So, when toxic symptoms appear in young children who are suffering from want of water, a good amount of water should be allowed, and the toxic symptoms then disappear.

But salt intake differs from country to country; and perhaps in Madras it differs from district to district, and even from family to family. There are some people who cannot get on without a pinch of extra salt. No cut and dry rule, therefore, could be laid down. It is said that some Bedon tribes manage to live in good health with only 2 grams per day. The salt taken by most people however, is about 10 grams per day. We find from our Madras statistics that it is about 18 grams per day per individual.

Allen is of opinion that symptoms of salt deficiency appear only when chloride excretion in urine becomes less than ½ gramme per day. The symptoms of salt deficiency, according to Allen, are: vomiting, headache, pain in the calves of the legs and weakness or irregularity of the heart. If in the course of your salt-free diet or salt restricted diet, you find your patient developing these signs it means you are rather too strict, and the simplest method of relieving the symptoms is to give 2 gm. of salt, when the symptoms disappear within 24 hours.

Based on various observations of different workers, Strauss classifies salt restriction under three heads:—

- (1) Strict form where less than 2.5 gms. per day is allowed.
- (2) Medium-strict form—2.5 gms. per day.

(3) Mild form—over 5 gms. are allowed but less than the accustomed amount. I am putting it as "accustomed." amount because 9 gms. may be a mild form of restriction for us, whereas, to a person in England it may be no restriction at all.

How are we going to apply this practically? Where do you find the salt? Is it in the food or in the food-stuffs? In other words, is it in the course of cooking that salt comes in or is it before cooking? Fishburg maintains that "most raw foods contain only very small quantities of sodium chloride" including vegetables. The exceptions are, milk, cheese, salted butter, salted fish, preserved meat and bread. Of course bread ought not to be put there because it is in the cooking that salt comes in. One mistake that is generally done in the treatment of oedema is that we put the patient on the ordinary diet, that is, milk and bread, which means we are allowing him plenty of salt, and at the same time we are talking of salt restriction! This mistake comes in, because we do not exactly go into the composition of the food. The greater part of the salt, however, comes in during the preparation of the food. So one thing you can do is to ask all vegetables etc., to be boiled without salt and given to the patient, and the nurse just to add as much salt as you would allow.

Some people have tried to replace sodium chloride in the diet by other sodium salts, such as sodium bromide etc. But with our present knowledge that sodium-ion is the factor that promotes oedema, it does not appear to be quite correct to substitute sod. chloride by sod. bromide.

2. Administration of Diuretics.—I believe all of you are conversant with diuretics. They are substances that increase the volume of urine. But then comes the question, where does diuresis begin and where does it end? There is no definite answer as to where it begins; only the ending is known to be in the kidney. The kidney is the last place from which the effects of diuresis are noted. But the action that results in diuresis may have started at various points, viz., in the tissues, in tissue fluid, in capillary wall, in the blood or in the general circulation, circulation through the kidneys, glomeruli or renal tubules. In some cases you find diuresis results from tissue changes; in other cases, from non-absorption of fluid by the renal tubules; in certain other cases you find it results from over-action of the glomeruli. We will see how each one of these comes in.

Now, what is the best diuretic? Water is by far

the best diuretic, but in oedema it cannot be given. It has found an advocate in Volhard, who, with his great authority, advocates the use of water up to an extent of 1500 c.c. in cases of anuric or severe oliguric patients with acute glomerulo-nephritis. There is anuria; there is some renal block; let us flood the part and remove the block. That is how he argues. He wants the whole 1500 c.c. of water to be swallowed within half-an-hour and by this method he hopes to flood the system in such a way as to remove the renal block. But other physicians have not accepted this view.

Next to water, we have got salts; salts act as diuretics. Among the salts, we may refuse to consider sodium salts as we have seen that they are contra-indicated in oedema. What about potassium salts? They are commonly used; they induce sometimes good diuresis. Pot. nitrate was once used extensively, but it has dropped out of use now. Now, why should pot. chloride be preferred to sod. chloride? Blum thought that potassium caused diuresis by increasing urinary elimination of sodium. Some other person thought that this curious action is due to potassium working from within the cells, and sodium working from without the cells; that is, he thought that sodium acts in the intracellular space, while potassium acts on the cells and so there is a different action. In the one case, oedema was removed, while in the other, oedema was induced. But we must always beware of potassium salts, as they are known to be fairly powerful poisons. They should be used only if the renal function is good; otherwise there will be retention of potassium which may lead to potassium poisoning—the results of potassium poisoning being nausea, vomiting and diarrhoea.

The ordinary potassium salts now-a-days used are: pot. citrate, pot. bicarbonate and pot. acetate. If one were working only on correct scientific basis perhaps all these three salts ought to be replaced or superseded by pot. chloride, because pot. chloride has no action on the acid base equilibrium, while the other salts tend towards alkalinity and hence towards retention of oedema fluid. If you want good results, you must use pot. chloride; it has no tendency either this way or that; it does not tend to raise the alkalinity or the acidity; and you know that anything that tends towards alkalinity increases the tendency for oedema, and anything that tends towards acidity, tends towards diuresis. Hence pot. chloride will be the most preferable salt to use. These potassium salts give best results in cardiac oedema.

This idea of acidity causing diuresis has led to the use of ammonium chloride and calcium chloride. Fishburg says: When the salts (amm. chloride and cal. chloride) are administered in effective doses, the titratable acidity, ammonia, sodium and total fixed base of the urine rise; the carbon-di-oxygen combining power of the blood falls and the hydrogen-ion concentration of the blood rises. Ammonium chloride apparently produces acidosis because the ammonia is converted in the body into urea which liberates chloride ions which abstract fixed base from its combination with bicarbonate. In the case of calcium chloride, he argues in a different way. The acidosis is due to the fact that calcium is largely unabsorbed and is excreted in the faeces; chloride alone entering the blood stream. That is the theory that Fishburg propounds as to why acidosis is induced by ammonium chloride or calcium chloride. Gamble and Hamilton think that the increased acidity of the blood lowers the base-binding capacity of the proteins and thereby affects the water exchange.

Naturally, then, these salts are contra-indicated in renal insufficiency, as there is a danger of acidosis.

Keith and his co-workers have used ammonium chloride and salyrgan with very good results. My experience and that of my co-workers in General Hospital are also the same; we have found that ammonium chloride acts as a very good diuretic and we have got the best results in cardiac oedema.

Another diuretic—urea—may occasionally be used in oedema, only if renal function is good. Some believe the diuresis with urea is caused by its osmotically opposing resorption in the renal tubules, while others hold that it also acts in the tissues. But urea is very unpalatable to take. It is very useful in cardiac oedema and sometimes also in nephrosis. It has to be given in very large doses, say, 15 grammes (about $\frac{1}{2}$ oz.) three times a day; and such large doses are usually given in lemonade, which may, to a certain extent, remove the bad taste. But whenever you are giving urea in large quantities, you must know you are suddenly raising the blood urea; but if the renal sufficiency is good, this temporary rise need not be dangerous. It is a very good diuretic no doubt; but it has got a very great drawback, apart from the taste. Immediately after taking the urea, the patient feels a strange thirst and if you give water to allay the thirst, you have defeated your object. The patient must have great will power and he must hold off water, in spite of his thirst till the fluid is removed from the body.

Then we have got another class of diuretics—the

purine derivatives. These were introduced into therapeutics after getting encouraging results in laboratory experiments. On the basis of experiments with Starling's heart-lung-kidney preparation, Gremmels came to the conclusion that purines act on both the renal epithelium and renal vessels. But Schmitz found that Euphyllin does not decrease the volume of tubular resorption. Hence the idea that purine diuretics act on renal epithelium cannot be correct.

According to Mceller's findings, Theophyllin causes an increased transit of fluid and salt from the tissues into the blood stream and hence diuresis in a kidney which is functioning well.

In cardiac oedema, the purines act in still another way, i.e., by their action on the heart which they stimulate and on the coronary vessels which they dilate.

Among the purines, caffeine is the commonest; but you must use it sparingly. Its use must not be continued for more than eight days; we practically get no results after a week; it seems to lose its property by that time; and this applies to most of the purine derivatives.

Theobromine et sodium salicylate (or Diuretin) is a stronger diuretic than Caffeine. It has greater action on the heart and the kidney, but less action on the nervous system. The dose of Diuretin may be 10 grs. three times a day, with plenty of water. Taylor found it necessary to use 90 grs. per day to get the maximum effect; so that according to Taylor my usual dose of 80 grs. a day may be insufficient. I have found that the action of Diuretin is not well sustained and diuresis diminishes usually after 4 days; hence it has to be given intermittently. What we usually do, is to stop it after giving it for 4 or 5 days and give an interval of 2 or 3 days, and again start, and then we get good results.

Another salt—Theophyllin or Theocine—is a stronger diuretic than the previous two; it is a more powerful cardiac stimulant and it dilates the coronary vessels better. But I have found it a most nauseating stuff and produces a greater amount of irritation of the gastro-intestinal tract. I was using that stuff some years ago, but I have given it up completely because of this. Dose is 3 grs. 3 times a day. The nausea is to a certain extent controlled by putting 3 minims of ol. menthae into the mixture for every dose. Here also after 3 days, the diuresis rapidly diminishes, so that you have to intermit again.

Another drug commonly used is Euphylline (ethylene diamine). One advantage of this is that

it can be given intravenously or intra-muscularly. In Vienna especially, that is the drug commonly used in cardiac oedema.

The next class of diuretics are *mercurial diuretics*. Mercury, as a diuretic, has long been known. Calomel has been known, as a diuretic, for ever so many ages; and next to Calomel, you have got Guy's pill, which has been used in cases of cardiac disease and is one of the favourite pills in use. But calomel has gone out of use because of the resultant stomatitis. During recent years, Novasural was introduced but it irritates the intestines very much and it irritates the kidneys also, so that after a trial of about a year-and-a-half, the General Hospital is no more using Novasural. It has now been replaced by Salyrgan, which is equally powerful, but less irritating to the bowels. The action of Novasural and Salyrgan is not clearly made out; how they act as diuretics is not known. A number of experiments have been made to find out their mode of action, notably by Gremmels, Schmitz and Govaerts. Gremmels was the first to demonstrate the diuretic action. Schmitz showed that increased output of urine was due to diminished reabsorption of fluids from tubules, and not to increased excretion from glomeruli. Later, Bertram, by injecting small quantities of the drug into the left kidney of dogs, showed that the urinary output of that kidney was increased, while there was no change in the urine output of the right kidney, showing definitely that the renal action of the drug was the one that was concerned in diuresis. But at the same time, there is some evidence to show that there is some extra-renal action also. According to some experiments, it has been shown that Salyrgan withdraws water from the tissues into the blood vessels. Claussen found that after the injection of Salyrgan, the blood of the hepatic vein is more dilute than that in the general circulation, indicating the mobilisation of water from the liver. Referring to our own experience, we may say, that I and my co-workers in Madras have found that Salyrgan is effective in cases of cirrhosis of liver, only when kidney function is still adequate. We have sometimes found good effects and sometimes no effect at all; and in cases where there has been no effect, we have found that the kidney was not functioning well. So, the renal action of Salyrgan is noted more by clinical observation; its extra-renal action cannot show results, if the kidney is not active. Novasural and Salyrgan have thus renal as well as extra-renal action.

Novasural is fairly gone out of use in General

Hospital, as its toxic action on the bowels was marked. Salyrgan is chiefly used now. While even a trace of albumin is a contra-indication for Novasural, Salyrgan can be given with traces of albumin. The chief indication for Salyrgan is cardiac oedema, and it should not be given if the kidney is not able to concentrate urine to a sp. gr. of 1015 at least. The action of this drug starts within 8 hours of its administration and lasts for about 18 hours. I have found that about 60 to 100 ozs. of urine are passed within the first 12 hours, and about 80 to 50 ozs. in the next 12 hours; and after 24 hours, the urine gets back to its old level—perhaps 15 to 20 oz. in 24 hours. The drug is always preceded by the administration of ammonium chloride for at least 48 hours. It can be given either intravenously or intramuscularly. First, a trial is made with $\frac{1}{2}$ c.c. as a test to see how the patient stands it; and if the patient does not react badly, 2 c.c. is given which must be repeated every third day.

Meyer has given injections of 2 c.c. of Salyrgan directly into the peritoneal cavity for dropsy. The technique is very simple. He draws about 10 c.c. of the ascitic fluid into the syringe, and leaving the needle in, draws 2 c.c., of Salyrgan into the ascitic fluid in the syringe, mixes them up, and then injects the mixture slowly back into the peritoneal cavity through the same puncture. Apparently it causes no damage to the peritoneum, because in one of the postmortem reports of a case which had received 30 such intraperitoneal injections, the peritoneum was found to be not damaged. In my ward the above has been repeated without any evil effects. One of my colleagues has injected, after emptying the ascitic fluid, with no bad effects. The toxic effects of Salyrgan may be: stomatitis, colitis, increase of albuminuria, hæmaturia, moderate fever and circulatory collapse. I have seen one case of stomatitis and two of colitis; increase of albuminuria has often been noted, and that has given us a warning to desist from giving any more Salyrgan. I have met with the other accidents. Fishburg reports one case of circulatory collapse within 8 to 12 hours after administration of Salyrgan in a patient with severe myocarditis; and it is doubtful if the patient died as a result of the disease or as a result of the treatment. Anyway, suspicion attaches to the treatment and Salyrgan has to be used with caution where myocardium is very badly affected.

MEDICAL REGISTRATION ACTS OF INDIAN PROVINCES & STATES*

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[We cannot possibly endorse some of the views of the writer in the latter part of his article. Our views on some of the aspects of the current systems of ancient medicine can be gleaned from our editorial, *The Problem of Quackery*, appearing in this issue. We do however, believe that efforts must be made to mobilise all the surviving systems of medicine in this country into one scientific system, to have only one Medical Register and to have a central representative Medical Council which will truly foster medical science without prejudice or passion. But this is easier said than done. Ed. I.M.J.]

The Baroda Medical Act No. XLI of 1933 is the only comprehensive Medical Act in the world that controls and prohibits the practice of any system of Medicine in the State to persons not registered under the Act and thus serves as a pattern to Great Britain even, in the matter of control of medical practice.

In this case, the purpose for which Medical Acts are enacted in a country, namely to enable persons requiring medical aid to distinguish qualified from unqualified practitioners and to regulate the qualifications of such practitioners, has been duly fulfilled.

Medical Councils are established in all progressive States and countries for the protection of the public and not of the profession. The General Medical Council of Great Britain was established by the Medical Act, 1858, in order that persons requiring medical aid should be enabled to distinguish qualified from unqualified Practitioners. Its principal functions are to keep the *Medical Register* and to see that the name of no person is entered thereon as qualified unless he has had an adequate professional education and to remove therefrom the names of qualified persons who are no longer entitled to public confidence and thirdly to provide for the publication of The British Pharmacopœia.

It is the appearance of a name upon the *Medical Register* and not merely the possession of a degree or diploma, that constitutes a person as duly or legally qualified practitioner of Medicine.

The Council has no power to make Rules in regard to the medical curriculum or examination, but it can pass resolutions and make recommendations relating thereto.

* Specially contributed to the Indian Medical Journal.

The Medical Acts do not impose restrictions as to any theory of medicine or surgery, and once a practitioner has been trained and tested in the knowledge essential for public safety, he may adopt any theory of medicine or surgery in which he honestly believes. The Medical Acts do not prohibit the practice of medicine in Great Britain by unregistered persons, but if they wilfully and falsely assume any title implying registration, they are liable to prosecution.

At the time of passing the British Medical Act, there existed, in England and Wales, Faculties and Universities which conferred Medical Diplomas and Degrees, but still the Act provided Registration of Practitioners who did not pass any examination or possess any qualification, but practised Allopathic System of Medicine before 1st August 1815. The gist of the British Medical Act has been given, in extenso a bit here, as it serves the model for our hasty Regulations of medical practice. The various Medical Acts of the British Indian Provinces to control practice of Allopathic Medicine in the respective territories are replicas of the British Medical Act in its black aspects. The privilege of registration of those in practice before the passing of the Medical Acts in the Provinces has been refused and the legal maxim "Every Law is not only prospective but also retrospective in its effects" has been grossly violated in Provincial Medical Acts.

The "Model State" of Mysore has tackled the problem with a tiny Regulation V of 1931 under the caption of "A Regulation of the Registration of Medical Practitioner in Mysore" and is on all fours with other British Indian Provincial Medical Acts, except that it is a Regulation and not a Legislative Act. The Regulation of Allopathic Medical Practice in India is a telling illustration of the penchant of our Legislation to copy the bad traits of English Law and to stifle the good side. The Indian Medical Degrees Act and the Indian Medical Council Act of 1933 are the two All-India Acts touching medical practice in India, but they have stultified themselves by giving countenance to compartmentalism in qualified medical practitioners. Perpetuation of compartmentalism in a highly scientific profession is very reprehensible indeed. Nearly twenty to thirty-thousand Licentiate Medical Practitioners are left out of the purview of the Indian Medical Council Act and the so-called Medical Council busies itself with qualification and examinations of Indian Universities and their Medical Faculties. Landing in a sort of *cul de sac* by its own class glorification and prejudice it misses its important function of keeping an

All-India Medical Register and providing an Indian Pharmacopoeia strongly recommended by the Drugs Enquiry Committee and acts only as an appendage of G.M.C. of Great Britain.

Rules for the Registration of Practitioners of Indian Medicine: Madras Government Order No. 251/P.H. dated 1st February 1933.

The task of controlling and regulating a system of Medicine by executive Governmental Orders is really an invention and device of the ambitious administrators. Taxation and Legislation without representation is undemocratic and ill-suited to the times and not in keeping with British notions of justice and fair-play. Perhaps "Native Medicine" deserved no better constitutional treatment. It is essayed to extirpate it by the gun of "A" Class Registration to Licentiate of Indian School of medicine, Madras, and the gun of "B" Class Codification to all other and sundry minor fries, ineligible for service or grant-in-aid by the Government or Local Bodies of Madras.

This summary disposal of an Ancient Aryan Medical System by an executive Government Order glorifying the Government School of Indian Medicine, guillotining, at the same time, all the other parent Ayurvedic Colleges and its professors, not to speak of the hereditary custodians of the science of Ayurveda is the handiwork of a medical mandarin.

Ayurveda is the parent stock from which all other systems—Unani and Allopathic—have sprung up. It is an open secret that the Aryans of ancient India showed their skill and genius in all the departments of medicine and surgery and although the vicissitudes of foreign conquest and a number of other causes, which need not be detailed here, interfered to break the continuity and turned back the tide of progress, there is plenty of record available, even in present times, to prove that the Hindus of old possessed a very good knowledge of the human frame, of the different diseases which attack human beings and the methods adopted to remove them. After the Mohammedan conquest of India, Unani system sprang up and rose to its zenith in this country and with the advent of the English the allopathic System came to be introduced. But the old indigenous systems of medicine—the Ayurvedic and Unani—still hold the field and cater for the medical needs of nearly ninety per cent of India's huge population. To regulate this system by executive fiat is a policy which is highly reprehensible.

Major Naidu in his address before the Medical Conference in 1932 opined that 2,00,000 further men are needed for the rural development and every Provincial Government is taking up the question in

right earnest. At such a juncture, to splash cold water on the face of Voluntary Medical Corps of the country like hereditary Ayurvedic Doctors, who are the mainstay of mofussil medical relief, is an impolicy of the most unimaginative kind.

The chief question to be decided is whether we want to give efficient medical aid to the rural areas or not and on what humanitarian grounds. You can say that because you do not happen to live in big towns, you must be satisfied with less efficient medical aid. It is a life and death question and it is the duty of public men to provide skilled and efficient medical aid on as large a scale as possible. Where you cannot provide efficient medical aid on western lines, let the Indian Medical System be patronised which is still in vogue in most of the places in India.

Let them be recognised by states and Governments without perpetuating compartmentalism. They must be brought into the Medical Register *en masse* and equality of qualification, dignity and status, maintained on the splendid analogy of the British Medical Register. The Ayurvedic System of Medicine has done and is doing medical service for this huge continent of India under all vicissitudes of favours and frowns from the power that be from time immemorial. The relief given by the costly Medical Departments of the Government cannot be compared to the magnitude of Medical relief rendered by the Ayurvedic Medical Profession of India. It is no good to make invidious distinctions in its ranks before providing teaching institutions all over the country for professional training. A single school of Indian Medicine in a metropolitan town is inadequate to subserve the needs of science and medical service to the masses. The present voluntary nature of medical service by Ayurvedic Physicians must be let alone and not hampered by the lure of lucrative State service.

That the development and extension of Indian Medical Systems must be left freely to progress after its own genius and not hampered by novel notions of scientific standardization is the opinion of Savants of Science, who have the interests of India at heart and are above aggrandizement of self and so-called science in India. The application of Ayurvedins all over the country to serious study of the situation is urgent. The All-India Ayurveda Mahamandal which is the only accredited body of Ayurvedins should be consulted in all matters of Ayurvedic Legislation, Regulation or Rule.

The enthusiasm of new converts to make Ayurveda leap above Science and Scientific Medicine at a stroke

of the pen lands the Ayurvedic fraternity in a quandary, as in Madras to-day.

The Silver Jubilee of the All-India Ayurvedic Conference this December must celebrate their Sammelan with an eye to ensure the solid foundation of the National Medical System of the land and the National Medical Service of India.

The arbitration of the destiny of Ayurveda by Amateur Ayurvedists reminds me of a classic couplet:

*Janmaprabhuti Gownasti, Ksheeram Pibathi
Nithyashah Udyogah Khalu Kartavyah, Bida-
lothra Nitharshanam.*

The cat which feeds on milk unremittingly every day never reared a cow or took the trouble to keep or bring up one. One rears a milch cow and the other enjoys its milk.

Beware of the Medical Politician, lest the "Dugdha Bhandu of Ayurveda" be drunk to dregs by the "Bidala Brinda" of Medico-Political Ayurvedins.

MEDICAL EDUCATION AND MEDICAL PRACTICE

BY DR. SHAMBUPRASAD D. MEHTA,

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[Following is the report of a speech delivered by Dr. Shambuprasad D. Mehta as President of the 34th Annual Social Gathering of the B.J. Medical School on 24-2-35. Dr. Mehta is an old boy of this school. He started as an hospital assistant in 1904; in 1913 he passed the L.C.P.S. Examination and in 1920, the M.C.P.S. He was promoted to the Bombay Medical Service in 1924. Brilliant as a student, distinguished in service, he is one of the instances of a medical licentiate who has used his opportunities well, and is a proof, if it is any longer needed, that the medical licentiate can adorn any medical position if the opportunity for the same is not withheld from him. This is the first time in the annals of the B.J. Medical School that an Alumnus of the Alma Mater was elected as president of its annual social gathering.]

We are very much indebted to Dr. Jamaitram Desai, Vice-President, A.I.M.L.A. for forwarding the report for publication. Ed. I.M.J.]

I am very thankful to you for the honour you have conferred upon me by electing me as the President of the gathering. Please allow me to say that there are persons who are more fitted and deserving than myself to fill this onerous post. However, as your choice has fallen upon me, there remains nothing for me to do but to bow to your decision.

At the outset I must say that the idea of holding such gatherings in which students and teachers, as

also students past and present, and Hospital Doctors and Private Practitioners meet together is happily conceived and is full of many possibilities of doing mutual good by creating a better understanding among ourselves. Free views are exchanged, old acquaintances are renewed and a closer contact between different grades of doctors is established. Besides, by giving an opportunity to place before the persons assembled the report of the work done during the year, our activities are made known to them. It also helps to remove the grievances of the students. It is neither necessary nor useful to dilate upon the manifold advantages that are produced by meetings of this kind, but suffice it to say that they become a potent factor in removing misunderstandings and furthering social amity and good feeling between all.

Regarding the grievances put forth by you I might say that in Col. A.H. Harty, I.M.S. we have got a very kind and sympathetic Superintendent at the helm of our institution, and I may assure you that he will be kind enough to look into them and redress them. During the short period of his joining this office he has taken personal care and interest in all matters pertaining to the school, and it will not be long before your real grievances would be things of the past.

Now with respect to matters relating to your studies, the first question that engages the attention of all concerned is about the proposed increase in the curriculum of studies in Medical Schools from 4 to 5 years, so that our course may be on par with that of other countries. As soon as this innovation comes into force, which is expected to be very shortly, there will be equalisation of the status of the Licentiate with that of others and you will be able to devote more attention to the study of practical subjects, while at the same time feel the burden less than at present on account of the additional period of one year. Of course, this change would not matter much in the region of private practice, for, there, it is not so much question of distinction or extra knowledge gained as it is the question of survival of the fittest. Any medical Practitioner, be he a licentiate or a graduate, who is industrious and painstaking and who has a fairly good number of friends and acquaintance to back him up in the beginning of his career, may achieve success. But it is hardly necessary to say that a year more put in your study will not only improve your status but will add more to your knowledge.

Now a word about the sort of boys that are at present admitted in the Medical School. You would

see that owing to a very great increase in the number of those seeking admission and on account of wider spread of education, the standard of fitness required for admission is necessarily raised, and as a result of this students who are better equipped with education and are more responsive to higher studies gain admission. The foundation being thus broadened and strengthened the superstructure must needs be better, and I might assert without any fear of contradiction that the L.C.P.S. doctors that are being turned out are of a better and sterner stuff than before. Being better educated, they know their responsibilities better and are capable of a firmer grasp over their subjects. This of course is a matter on which we as well as the students may well congratulate ourselves. But here I think it is necessary to give them a piece of advice which they would bear in mind and it is this, that they should be regular and methodical in their studies from the very beginning and should pay particular attention to the practical side of their studies, for practical work is the very back-bone of the professional training.

Now I turn to the results of your examination. They are as a rule cutting and they become more so as higher examinations are reached. But you should neither be disappointed nor distressed about this, nor create a grievance out of it but should work harder, for, you should bear in mind that a high standard of efficiency is the first necessity in a profession like ours where we have to deal with the life of a patient.

I cannot close this subject before making a few observations in post-graduate study. Some of the qualified Licentiate Doctors are now working in the wards in order to learn practical work. I think this practice is commendable and requires encouragement. Besides you would see that medical Science is progressive and new things both in the treatment and diagnosis of diseases are coming to light. A doctor in order to be thoroughly efficient should keep himself acquainted with the latest things in the medical Science and for this purpose nothing is better than a post-graduate course.

Also the complaint that is nowadays heard that the profession is being over-crowded, deserves a few remarks. In my opinion, this is not the whole truth. Of course times are harder and new avenues require to be opened. It is also true that all of you may not get a roaring practice but if one were to see carefully there is so much scope for work for good practitioners in the village areas and the mofussil—in fact the suffering humanity is waiting to be treated if one has the grit and the knack to do that

work. This is worth giving a trial. It will give you the opportunity of doing useful and unlimited work, but the question is about beginning to do it in the right manner and right spirit. Those who wish to do so must be actuated by a keen sense of doing social service and must have the missionary zeal and patience to do their work, and I am sure their efforts will be crowned with success. In big towns and cities expert knowledge and experience are needed, but in villages and the mofussil there is no necessity for such a high skill for ailments of ordinary and less complicated nature, such as malaria, diarrhoea, dysentery etc., which run riot among the ignorant people and take a heavy toll of life.

Before closing, I think it is my duty to say a few words about private practice to those that are to follow that course. Recovery of the patient should be the first aim of the Doctor. In his dealings with the patient he should not divest himself of the human element in him. He should be kind and courteous to his patient and should try to avoid any feeling of annoyance in his dealings with him. In short he should try to be patient with his patient. If the patient is satisfied it should be a sufficient recompense for any deficiency in money-payment. He should always bear in mind the sacred nature of his profession which consists of healing and giving new life to his patient.

Gentlemen, I think I have had my say and I should not encroach upon your time anymore by dwelling on things with which you are more or less conversant by dilating further upon them. I am very thankful to you for hearing me patiently and take this opportunity of tendering my most sincere thanks once more for electing me to preside over this function.

Our Contemporaries

THE INTERPRETATION OF PAIN IN THE ABDOMEN

By HAROLD C. EDWARDS M.S., F.R.C.S.

*Extracted from The British Medical Journal
No. 3875 of 13-4-1935*

Pain is the predominating symptom of all acute and many chronic abdominal diseases. John Hilton says in his book "On rest and pain": "I conceive that pain situated in the surface of the body and associated with some abnormal state of an internal viscus must be looked upon as a beneficent provision

enabling us by external pain to appreciate slight organic changes or derangements of function of the internal viscera."

Intestines, when brought out of the abdomen for colostomy, can be incised without pain. If the abdomen is opened under a local anaesthetic, the abdominal viscera may be freely handled without hurting the patient; but the slightest mechanical stimulation of the parietal peritoneum gives rise to acute localised pain. Pain in the viscera may also be caused by distension from within their lumen.

Thus, there are two types of abdominal pain: 1. That due to distension of viscus (visceral pain) and 2. that due to irritation of parietal peritoneum. The viscera are supplied by splanchnic nerves. Pain arising from distension of an abdominal viscus is not accompanied by physical signs of tenderness of the abdominal wall or muscular rigidity. It is also not localised, but diffuse and widespread.

The peritoneum is innervated by somatic nerves. The nerve supply is segmental corresponding with that to the skin and muscles of the abdominal wall.

Visceral pain is diffuse and widespread without being localised. No rigidity of abdominal muscles nor hyperæsthesia is present. Peritoneal pain is well defined, and can be accurately localised. It is accompanied by tenderness, hyperæsthesia of skin and rigidity of abdominal muscles. Visceral pain waxes and wanes. Peritoneal pain is inflammatory, fixed, constant and steadily increasing in intensity. The temperature in visceral pain is unaltered or sub-normal. In the other, it is raised. In visceral pain the patient is restless. In the other, he remains motionless with his knees drawn up.

Some common complaints and the pain they produce

Appendicitis.—First there is central pain, diffuse, spreading widely round the umbilicus, colicky and increasing in severity. This is visceral pain since it is due to the distension of the appendix by inflammatory exudates or by concretions. After a time, pain starts in the right iliac fossa. It is constant and localised due to the irritation of the parietal peritoneum. Hyperæsthesia, local tenderness and rigidity of the abdominal muscles are now present. Temperature rises. Sometimes, the above sequence of events does not happen, when the appendix lies posteriorly and the peritoneum is protected from it by the cæcum and ascending colon and when it lies wholly in the pelvic cavity. In the former case, there will be spasm of psoas muscle with flexion of the right hip joint in consequence and in the latter case, tenderness on rectal examination will be present.

2. Biliary colic.—In this case, pain may arise during the attempted passage of a gall stone from the gall bladder or from acute inflammation of gall-bladder itself. Biliary colic is a true visceral pain, situated diffusely to the right side of the umbilicus. In early stages, there is no local rigidity though parietal pain may develop later as a result of oedema of gall-bladder wall. Rarely when the attack terminates in gangrenous cholecystitis, all the physical signs of localised peritonitis will be present in a marked degree.

In cholecystitis, the pain is entirely of the peritoneal type with local tenderness, rigidity of muscles and hyperæsthesia of the skin. Shoulder pain is a frequent accompaniment.

Peptic ulceration.—The pain of chronic peptic ulceration of stomach and duodenum is certainly visceral. It may be due to muscular contraction due to the presence of an ulcer or due to the irritant action of gastric juice on the ulcer. The gastric pain is of a boring character, develops $\frac{1}{2}$ to 1 hour after a meal is taken and disappears before the next meal. In duodenal ulcer, the pain is of a burning character, arises 2 hours after a meal and lasts until the next meal which itself gives relief. The cycle, *meal-freedom-pain-freedom-meal*, is characteristic of gastric ulcer, whereas in duodenal ulcer, the cycle is, *meal-freedom-pain-meal-pain*. Localised tenderness and increased resistance of muscles may be present during the active phase of an ulcer.

Perforation of gastric or duodenal ulcer is recognised by violent pain of the visceral type of short duration, subsiding immediately when perforation into the general peritoneal cavity takes place. The patient is collapsed. Later, pain of the peritoneal type in its severest form develops. It is at first localised to the epigastrium and later on becomes diffused over the whole abdomen. The abdomen is retracted and board-like rigidity of muscles present.

4. Pain resulting from acute pancreatitis is of visceral type and is due to the distension of pancreas as a result of the enormous swelling of the gland. No rigidity of the abdomen, even when the pain is most severe, is present. The pain is accompanied by vomiting of an intractable type with cyanosis of extremities and rapid dehydration.

5. Pain from small intestines, kidney etc.—Pain from small intestines is due to excessive stimulation of musculature by errors of diet or from a cathartic. The pain from an organic obstruction is of the same character but severe, of sudden onset and associated with sickness and distension of abdomen.

Pain due to the passage of a renal stone is of a true visceral type. The pain is localised, there may be slight tenderness over the kidney region during the attack and the lumbar muscles may be a little more resistant than normally.

The pain, in all the above conditions, is due to causes from inside the abdomen. Pain may also be due to extra abdominal causes, as in early stages of pneumonia which may simulate appendicitis especially in children. Herpes, Pott's disease, and Tabes dorsalis are also conditions in which referred pain in the abdomen may be present. In most of these, there is rigidity of muscle or deep tenderness, though in herpes, hyperæsthesia may be marked. In cases of acute abdominal pain, where the origin is obscure, we should not forget to test the knee jerks.

Y. S. R.

TREATMENT OF HEART-BLOCK

By ROBERT MARSHAL M.D., F.R.C.P.I.

Extracted from The British Medical Journal
13-7-1935

The site of heart-block must first be located. This, in most cases, can easily be done by electro-cardiography. Some forms of heart-block can also be determined by careful clinical examination. Secondly, the cause of the block should be discovered. In congenital cases, frequently there is demonstrable evidence of lesion in inter-ventricular septum. The toxins of rheumatism, diphtheria, influenza, enteric fever, scarlet fever, and syphilis are frequent causes in youth and adult life. In later years, degenerative and coronary vascular changes are common causes. Thirdly it must be decided whether the block is affecting adversely the efficiency of the circulatory system and fourthly, whether we can effectively remove the cause of the block or ameliorate its effects.

Heart block is of four varieties. 1. Sino-auricular block. 2. Auriculo-ventricular block. 3. Bundle branch block. 4. Arborisation block.

Sino-auricular block.—In this variety the impulses from sino-auricular node fail at times to produce auricular contraction, and give rise to arrhythmia with long pauses between pulse beats during which no heart sounds are heard. It is not of serious significance and may be regarded as "an obscure phenomenon."

Partial auriculo-ventricular block.—Prolonged auricular interval. This cannot be detected without polygraphic or electro-cardiographic tracings. It is common in acute rheumatic and other infective carditis. If the apparent cause is a septic focus, this

should be dealt with. If it is due to acute rheumatism, perfect rest in bed is essential until it seems inevitable that the delay is permanent.

Intermittent failure of ventricular response.—In this form, the auricular impulse occasionally fails to reach the ventricle, giving rise to dropped beat. The heart is silent when the beat is dropped. The administration of atropine hypodermically, inhalation of amyl nitrite or ephedrine orally may temporarily double the ventricular rate. In syphilitic cases, potassium iodide is the most valuable drug. Mercury is given by innunction. Bismuth is also of use. Intravenous injections of arsenic should not be given if there is anginal pain.

Complete auriculo-ventricular block.—This is relatively a rare phenomenon. This condition may be transient or permanent. Its presence can be determined by bed side examination and graphic methods. The bradycardia due to this condition is not influenced by inhalation of amyl nitrite or injection of atropine in small doses; whereas in simple bradycardia, the ventricular rate rises by the use of the above drugs. Besides, in complete heart-block, heart sounds vary in intensity. Dissociated auricular waves occur independently of the apex beat. Patent inter-ventricular septum is usually found in these cases.

Acquired complete heart block is usually degenerative in origin, commoner in later life and is to be regarded as indicative of wide spread affection of heart muscle with special involvement of neuromuscular mechanism. Toxic causes should be treated; complete rest is essential. Wassermann's test should be obtained in every case. During the stage of onset, symptoms of Adams-Stokes syndrome are most prone to occur, for which immediate treatment is imperative.

Adams-Stokes syndrome.—This syndrome varies in intensity from transient vertigo to syncopal attacks with or without convulsions. Vertigo is the mildest form. Syncope is abrupt in onset. Face is at first pale but later on reddens. Epileptiform convulsions arise. These symptoms are dependent on slow ventricular rate and bear a direct relation to it. Treatment is by immediate hypodermic injection of adrenaline which must be fresh. If there is no immediate response, and if convulsions occur, $\frac{1}{2}$ c.c. of the same drug must be injected into the heart. Ephedrine may be given orally. Atropine is less reliable. It must be explained to the patient that his heart is acting on a slower gear and that he must regulate his life accordingly. Digitalis is contra-indicated when the heart-block is incomplete or

transient but in established cases with signs of congestive failure, digitalis may be given. Complete heart-block is compatible with life. The presence of syncopal attacks affects the prognosis materially for the worse.

Bundle branch and arborisation block.—This variety cannot be recognised without electro-cardiography. The correct localisation of the block as arising from right or left branch is apparently unsettled. The prognosis is bad in both types except in those of syphilitic origin. The treatment is that of chronic myocarditis.

Y. S. R.

Reviews

Mind and Vision by Dr. R. S. Agrawal, L.S.M.F., Eye Specialist, Delhi; 1935 Edition, Price Rs. 4/-

We have gone through this book with care and interest. It is written in such a simple language that even a lay man can follow without much trouble. Dr. Agrawal's system of eye exercises is bound to create some interest among medical men, in as much as it aims to cure errors of vision without glasses. He uses the present scientific knowledge to diagnose a case but his remedy is entirely different. His theories about the action and functions of the Eye muscles and other Eye structures are bound to revolutionise ophthalmology, if they can stand scientific tests. The chapters on Eye strain and its treatment are very useful. The main theme of the book is that every defect in the eye, from Glaucoma and Cataract to Conjunctivitis and errors of Refraction, arises as a result of undue strain on and improper use of the eyes. He, therefore, naturally aims at curing them by proper training of the eye muscles. For this, he recommends Palming of the eyes, Sway, Blinking, Reading the test types, Sun treatment Etc. All these are lucidly explained in the book. It is easy to dismiss his methods as not conforming to modern practice of Ophthalmology; but to do so without an honest and extensive trial to his system will be nothing short of prejudice. The Author does not merely enunciate his system but also supports it by a large and reliable amount of clinical experience. In any case, it has the advantage that any one can follow it without incurring any expense, and as it possibly can do no harm we strongly recommend the book to those who would

like to get rid of the glasses or who are unwilling to wear the same.

The book is handy, neatly bound and printed and certainly worth its price.

C. V. C. R.

The Chemical Control of Conception by John R. Baker, M.A., D. Phil., Lecturer in Cytology in the University of Oxford, with a chapter by H. M. Carleton, M.A., D. Phil., Research Fellow of New College and Lecturer in Histology in the University of Oxford. Published by Messrs. Chapman and Hall, 11 Henrietta Street, Covent Garden, London. Edition 1935, Price 5 Shillings net.

This is an excellent and fully authenticated contribution on the subject of The Chemical Control of conception. The spirit of research and practical applicability of the results of research have been both kept in view by the author. As he himself writes, *it is hoped that the research recorded in this book will be regarded as a contribution to pure as well as applied science.* The mode of action of Spermicides is described succinctly in chapter IV and almost all the known contraceptive drugs have been put to test and of course with varying results. All these drugs may not conform to the requirements of an ideal Spermicide; but, as the author himself expresses, we will know at least which substances do not deserve further investigation.

We heartily recommend this book to the medical practitioners who want to know exactly how a drug acts on the Sperm when used as a contraceptive and what drugs to choose without harming the patient for preventing conception on well known medical and social grounds. The book is no trade stunt with a view to popularise a particular patented drug but a dispassionate, masterly and scientific exposition of the full range of chemical contraceptives.

A. V.

Leprosy with special reference to its occurrence in India by Dr. S. N. Malhotra, M.B., B.S., (Punj.) F.C.P.S., (Bom.) M.D. (Volt), Chief Medical Officer, Jubbil State, with a Foreword by Dr. Bhupatsinhjee M.B., Ch., M.R.C.S. L.R.C.P., Chief Medical Officer, Gondal State. Published by Rayan Pharmacy, 97, Girgaum Road, Bombay. Edition 1935. Price Rs. 4/4, Postage Annas 7 extra.

In these days when so much attention is being paid to the problem of eradication of leprosy and to the discussion of this subject in all its aspects—

research, prevention and treatment—any new book which will be of help in this direction is certainly welcome.

The book under review is a handy volume of 110 pages divided into six chapters, viz., Introduction, Historical outline, Etiology and Pathogenesis, Diagnosis and Prognosis, Treatment, Summary and conclusion with a bibliography at the end. The Author does not attempt to detail all the recent advances in leprosy in its various aspects as the book is chiefly intended to be of help to the general medical practitioner and the lay public who have pre-conceived notions on this subject. There are certain statements made in the book, on which difference of opinion is likely to exist. For instance it is stated (page 5) that "hill areas suffer more (from Leprosy) than the plains," at least so far as this country is concerned. For aught we know, the experience of most workers in leprosy is quite the contrary. On page 46, the author writes that "they (L. Bacilli) occur singly or two may be attached end to end". Later, on the same page, he states that "they are often arranged in bundles". Our experience is in consonance with the latter statement. On page 53, he mentions that "the earliest symptoms after prodromal stage are those of irritation with one of leprotic fever". So far as leprosy in India is concerned, the consensus of opinion is that fever in the early stages of the disease is very rare—probably in not more than 1 or 2 per cent of the cases. In the chapter on Prognosis, no mention is made of Sedimentation and Leprolin tests to find out, if roughly, the degree of resistance of the individual to this infection. As regards treatment by drugs, he naturally and rightly stresses on the value of Hydnocarpus oils; but there is no mention about the recent attempts at the treatment of this disease by aniline dyes. The author's experience of these later-day drugs would have been much appreciated by the general medical practitioner who is anxious to know about the latest advances in therapeutics. The author is probably not unaware of the successful attempts to treat leprotic reaction by intravenous injections of Mercurochrome or Fluorescein and the good results obtained in eye complications by Trypan Blue. The intra-dermal method of injections of Hydnocarpus oils is but casually mentioned. There are some mistakes of printing which may be corrected in the next edition. For instance, on page 43 line 14, it is printed "Suctantors" for "Subcutaneous" and again on page 46, Line 12, it is printed 'ta' for 'at'. The cost of the book is a little high which may not be within the reach of an average practi-

tioner or the common man whom the book is intended to reach.

Notwithstanding what we have written above, the book is bound to be useful to the general practitioner and the lay public, in as much as the author's treatment of the subject is simple, concise and intensely practical. He does not beat about the bush and indulge in vain speculations or controversies. We heartily recommend this book.

Y. S. R.

Correspondence

RADIO-THERAPY WITH SPECIAL REFERENCE TO ANTI-SOLARIUM TREATMENT

To
THE EDITOR,
INDIAN MEDICAL JOURNAL

Sir,

I had great pleasure to go through the article on Radio-Therapy and Solarium Treatment by the learned Dr. P. M. Mehta, M.D., M.S., F.C.P.S., Chief Medical Officer, Nawanagar State, in your February, 1935 issue.

I agree that this treatment if properly controlled will achieve better results than various other treatments. In my humble opinion if the after effects of this treatment are well controlled by Anti-solar Exposures, this subject, unfortunately remained so far unsolved, would give satisfactory results.

I therefore venture to suggest the following:—

Specific heat.—The specific heat of human body is 98.4° F. It means, the body always remains at this point irrespective of the changes in the external atmospheric temperatures. They are hot, cold and body temperatures.

1. *Hot.*—All points over and above 98.4° F. go under this head.
2. *Cold.*—Lower points below 98.4° F. fall under this category.
3. *Body temperature.*—Stationary point at 98.4° F.

Effects of Temperature.—There are two kinds of functions performed by the body: normal and accommodative.

Body Temperature.—If the external temperature is fixed, the body performs its normal functions. The accommodative mechanism is thrown out of

gear. The accommodative functions are of two types. They are both quite contradictory to each other and as such they require stimulants of similar nature.

Hot Temperature.—If the external temperature is fixed at 110.4° F. the accommodative power comes into play. The result is increased heat loss, less production of heat, etc.

Cold Temperature.—If the external temperature is fixed at 82.4° F., here again the accommodation power comes into action. It may be well remembered that this is quite contradictory to the former. For, here loss of heat is diminished and production of heat increased etc.

Balance.—Human body is a balance performing its normal functions at body temperature. All variations above and below this are burdens over the power of accommodation. Similarly our Earth is a balance performing its normal functions at the temperature present on Equinoctial days. All positive exposures to the Sun over and above this are associated with signs and symptoms of heat. So also all negative exposures (lesser exposures) are attended with signs and symptoms of cold.

Geography teaches us that the equator divides the Earth into Northern and Southern Hemispheres. When the Northern Hemisphere is getting positive exposures, the Southern Hemisphere receives negative ones. Mango tree bears fruits in Northern Hemisphere and pomegranate tree in Southern Hemisphere on the same day. We infer therefore that these trees receive their normal exposures and so they bear fruits. It is no wonder that pomegranate tree of India can be made to bear fruits in Summer by transferring it to the Southern Hemisphere while its fellow trees remain as they are in India. The key note is a correct calculation of the place in this case. Similarly it can be made to bear fruits in India as well for all what it wants is to convert its surroundings to those of winter. Of course that would involve great brains and high expenditure. It emphasises the fact that regulated outer atmosphere brings forth desired reactions in the body.

Exposures.—We expose a body to the Sun. It brings the accommodative power into action. Body perspires, loses more heat and produces less heat etc. Before and after exposures, the body is subjected to general atmospheric conditions. Since the body is already adjusted according to its surroundings, this exposure acts as a burden on the accommodative power. In other words, we put a weight in one of

the pans of the scale. We go on giving a series of exposures in this manner. Consequently patient is relieved of his present ailment as a result of exposures but on the other hand he develops a new trouble starting with headache, fever, pigmentation of skin etc., ending in a permanent form of one of the diseases, attributable to under or over exposures or the like causes. The results of reactions are retained in the body. In the ordinary course of nature, when one side is stimulated in the day the other gets its chance in the night. In this particular case no extra allowance was granted either in the day or night. This accumulative effect is the cause of the new trouble.

The next step after each and every exposure is to counter-balance it. In the case of Sun exposures the Anti-solar exposures can be given of cold and darkness associated with cold light, the same thing what we experience everyday.

A more scientific and accurate exposure can best be given by keeping the patient at body temperature all the 24 hours and then solar and anti-solar exposures of known strengths regulated according to the conditions of the case.

Single sided exposures must invariably produce one form of disease or the other. For instance, an ounce of mother's milk gives innumerable beneficial effects when absorbed by the infant. We mechanically obstruct the passage of waste products in the hope that the whole quantity of milk would be compulsorily absorbed. The results are reversed. Similarly exposures to Sun are sure to be attended with various beneficial effects on different parts of the body provided that the waste products of these reactions are eliminated from the body immediately.

Eczema in X-ray, Erythema, pigmentation, scalds, burns, headache, artificial fever etc., in Sun baths are all undesirable results frequently met with in our every day practice. If these exposures to Sun are correctly regulated, they are bound to eradicate all diseases, as for instance, the pomegranate tree can be made to bear fruits even in Summer, as mentioned above.

Results of single-sided exposures are dangerous for they produce cancer as declared by Dr. W. Hunter, Medical Officer of Health for West Bridgford, Notts, England, in the Times of India dated 29-4-35.

I have long been contemplating an instrument to control these Anti-Solar exposures and hope it will be completed shortly.

Madan Lall Purohit, L.M.P. (C.P.)
District Medical Officer, Sanchoe,
30-4-35 Government of Jodhpur.

C. P. MEDICAL BOARD

To,

THE EDITOR,

INDIAN MEDICAL JOURNAL

Sir,

While we congratulate the members of the C. P. Medical Board for having recently passed the resolution of Five years' course at the Robertson Medical School, Nagpur, it is regrettable, however, that they have lowered the standard of examination by lowering the required pass marks from 50 % to 40 % in each subject. This is undoubtedly a retrograde step and will certainly nullify the aim and purpose of a Five years' course. It is rather paradoxical that the Board while recommending an increased course should at the same time lower the examination standards. One fails to understand the inspiration behind this move.

It may be known to the Board that almost all the Faculties and the Medical examination Boards have a standard of 50 % pass marks e.g., Madras, U. P., Rangoon etc.

There is already enough prejudice prevailing against the Nagpur L.M.Ps. from interested quarters. Only in 1934, much dirt was thrown on them under the garb of a "Demand for a Medical College." We suppose that Robertson Medical School is not run to turn out inefficient stuff as plentiful as Blackberries. If it is to subserve the ends for which this School exists, this retrograde resolution should be cancelled forthwith. We respectfully suggest that the Board should reconsider their resolution and maintain the old standard of pass marks, namely, 50 %.

To have passed the resolution on the "Five years' course" and at the same time to lower the standard of examination is like blowing hot and cold at the same breath.

We earnestly hope that wise counsels will prevail and that the efficiency of the institution will not be sacrificed by such contradictory and inconsistent move.

Nagpur,
19—8—35

Pro Bono Medico.

[If what our correspondent says is true, it is indeed regrettable that the C. P. Medical Board should have thought it fit to lower the percentage of pass marks, especially in view of the fact that there is an all-round cry for a higher standard of Examination. It is no doubt a retrograde measure and is inconsistent with the spirit of its resolution in favour of the "Five years' course." The Provincial Medical Council should set its face against this lowering of the standard and see that this is rescinded. It is within its power to do so and there is no conceivable reason why it should not exercise its authority in this instance. Ed. I.M.J.]

Notices

Arttoddhar Samiti (Distress relief society)

Dr. Satya Charan Maitra, President Arttoddhar Samiti and Vice-Chairman, Burdwan Municipality, writes :

Perhaps the readers of the *Indian Medical Journal* are aware of the great devastation caused by the recent flood of the Damodar. Hundreds of villages have been washed away and thousands of houses have been destroyed. Though the water has subsided the villagers have been put to acute distress for want of food and shelter. Immediate help is necessary to save these helpless men, women and children who are in the grip of death every moment. We have started this organisation to help the sufferers. But their wants are immense while our funds are limited. We are to meet thousands of difficulties daily. We hope and believe that your sympathy for the affected is no way less than ours. Hence we appeal to you most fervently to send us your immediate help in any form which will be thankfully accepted by me.

Tuberculin Standardisation and Tuberculin Tests

(Issued by the King George Thanksgiving (Anti-Tuberculosis) Fund, Indian Red Cross Society, Simla.)

The Executive Committee and the Council of the International Union against Tuberculosis, whose Secretary General is Prof. Fernand Bezancon, met in Paris, at the Headquarters of the Union, 66, Boulevard St-Michel, on the 10th and 11th July 1935 under the chairmanship of Dr. Piestrzynski, Under Secretary of State for Poland. Delegates from 20 countries attended this meeting. The administrative meeting of the Council was devoted to the preparation of the programme of the Conference of Lisbon which is due to take place on the 8th, 9th and 10th September 1936. The agenda of this Conference is now definitely settled and will include the three following subjects. "Radiological aspects of the pulmonary hilum and their interpretation", opening report by Prof. Lopo de Carvalho (Portugal); "Primary tuberculous infection in the adolescent and the adult", opening report by Dr. Olaf Scheel (Norway); "The open case of tuberculosis in relation to family and domestic associates", opening report by Sir Henry Gauvain (Great Britain).

At the scientific meeting of the Council Prof. Lyle Cummins (Cardiff) occupied the Chair. Prof.

Madsen of Copenhagen, submitted a report on "Tuberculin Standardisation and Tuberculin tests". Dr. Kendall Emerson, Managing Director of the National Tuberculosis Association, gave an account of the work of Dr. Long and his collaborators who claim to have isolated the active principle of tuberculin. In a discussion in which Prof. Lyle Cummins, M. Boquet, Prof. F. Bezancon, Prof. Sergent, Prof. Debre, Dr. Lesne, Dr. Rist, Dr. Troisier, Dr. Saenz, . . . etc., took part, the respective merits of Pirquet's cuti-reaction and Mantoux's intradermal test were compared. The majority of the French speakers expressed a preference for the former method while their colleagues from other countries spoke on behalf of Mantoux's test. They all agreed on the advisability of adopting a standard tuberculin and a uniform tuberculin test.

The First All-India Obstetric and Gynaecological Congress 1936

Under the joint auspices of the Bombay Obstetric and Gynaecological Society and the Obstetric and Gynaecological Society of Southern India, the first All-India Obstetric and Gynaecological Congress will be held at Madras on the 2nd, 3rd and 4th January 1936. The sessions will be devoted to the consideration of subjects under the following three sections.

1. Obstetric section, 2. Gynaecological section and 3. Maternity and Child welfare section.

There will be organised in this connexion a Scientific Exhibition, which will include exhibition of scientific appliances, food-stuffs, drugs and scientific books.

Members of the medical profession are invited to attend the Congress.

Particulars with regard to the programme will be published later. Those who intend to contribute papers to any of the sections are requested to kindly communicate with the President of the Obstetric and Gynaecological Society of S. India, Government Hospital for Women and Children, Egmore, Madras.

Sale of Spurious Drug

"I feel that the public need to be protected from such heartless exploitation of the sick and the injured." With this remark Mr. Oscar H. Brown, Presidency Magistrate, Bombay, passed a sentence of one month's rigorous imprisonment and a fine of Rs. 250 on Vadilal Mohanlal, an employee of a stationery firm, on a charge of selling a spurious "Antiphlogistine."

"The accused," the Magistrate further commented, "exploited a well-known drug which is largely used by the medical profession and known even by laymen

simply by the name. In cases of dangerous illness incalculable harm may be done by the use of a drug which is not as efficacious as the one prescribed by a doctor." In default of fine Vadilal was ordered to undergo further imprisonment for three months.

In March 1933, the complainant discovered that there was being sold in Bombay a preparation, not made by the Denver Chemical Company, in containers of a size and shape similar to those of the genuine Antiphlogistine. The spurious stuff was inferior in quality and it was not antiseptic, bacteriostatic or germicidal. It was different in colour, smell and consistency from the genuine drug and rapidly deteriorated. It was also cheaper. [Excerpted from "The Times of India" and published at the request of Messrs Denver Chemical Mfg. Co.]

Information Bureau

(This column is specially opened to give such information as will be useful to the medical licentiates of India. For more detailed information, write to Dr. U. B. Narayan Rao, General Secretary, A. I. M. L. A., 94, Girgaum Road, Bombay 4, who will respond to enquiries promptly Ed. I.M.J.).

The General Secretary, All-India Medical Licentiates' Association writes:—

This Bureau is started with the idea of giving such necessary information regarding education in Indian and Foreign Universities (British, German, Austrian, American etc.) Post-Graduate Courses in various special subjects, the period of studies, preliminary qualifications required as will be of help to the Licentiates. Full particulars will be available from me. As this is newly started, those who are in possession of facts are kindly requested to inform this office.

The Medical Licentiates who enroll themselves as members of the All-India Medical Licentiates' Association will have the following concessions and opportunities, besides the rights and privileges of ordinary membership.

Free advertisements to members of the Association.—Situations wanted and vacancies:—This column will be placed at the disposal of the members of the Association, free of all charges for 3 insertions. Advertisements should be short and ethical and not exceeding 6 printed lines. Further insertions will be charged for. The Editor reserves to himself the right of altering the matter sent for publication. Full name and address of the advertiser should be

sent to the Editor (not necessarily for publication). Box Nos. may be used.

Concession rates to members of the Association.—1. The Indian Journal of Pediatrics, a quarterly edited at 67, Dharamtala Street, Calcutta, by Dr. K. C. Choudhury will be available to our members at a concession rate of Rs. 4-8-0 per annum.

2. The Indian Journal of Venereal Diseases, a quarterly edited at 94-97 Girgaum Road, Bombay 4, by Dr. U. B. Narayanrao, will be available to our members at a concession rate of Rs. 3-8-0 only per annum (Usual rate Rs. 5/- per annum).

Thesis Prizes.—The following prizes are offered to members:—

1. Dr. Joseph Benjamin's Thesis Prize for 1934—Subject "Anti-Natal Diseases, their care and treatment". Last date of receipt of article on 30th September 1935. Value Rs. 35/-.
2. Dr. Joseph Benjamin's Thesis Prize for 1935—Subject "Prevention and Treatment of Malaria". Last date 30th November 1935. Value Rs. 35/-.
3. Dr. Ramchandrier's Thesis Prize for 1935—Subject "Prevention and Treatment of Cholera". Last date 30th November 1935. Value Rs. 25/-.

The articles in each case should not be more than 1,000 typed lines and should be sent to Dr. Joseph Benjamin, President, Gujrat Branch of the All-India Medical Licentiate's Association, Daulgarwada, Ahmedabad, so as to reach him on or before the stipulated time. Only the bonafide members of the A.I.M.L.A. are allowed to compete.

Obituary Notices of the members of the Association are also published in the I.M.J. Friends or relatives of the deceased members are requested to send to this office a short life sketch with a photo, if possible, of the deceased members for publication in this Journal.

* * *

Following is a list of Honorary Medical Officers in the Bombay Presidency (Licentiate).

1. Dr. C. G. Rege, L.C.P.S. (Bom).
Hon. Dental Surgeon, Civil Hospital, Gondhali Gally, Belgaum.
2. Dr. P. R. Pimpalkhare, L.C.P.S. (Bom). L.D. Sc. (Delhi).
Hon. Dental Surgeon, Civil Hospital, Newaskar's Building, Dange Gally, Ahmednagar.

Service Notes

STATEMENT SHOWING THE TRANSFERS, POSTINGS AND LEAVE OF SUB-ASSISTANT SURGEONS SERVING IN THE PRESIDENCY OF BENGAL FOR THE FORTNIGHT ENDING THE 15TH JUNE, 1935

Harendra Narain Roy, Police Hospital, Noakhali, to Supy. Sadar Hospital, Barisal. The move was in the interest of public service.

Rajendra Chandra Das, Held charge of the Diamond Harbour Subdivisions and dispensary, Dist. 24 Parganas on 14-5-35 during the absence of Selection Grade Sub-Assistant Surgeon Dr. Radhika Mohan Das—summoned to give evidence at Alipore. The move was in the interest of public service.

Md. Hossainuddin, Police Hospital, Rungpore, to Held charge of the Nilphamari Subdivision and Dispensary on 14-5-35 during the absence of S.A.S. Dr. Monmatha Nath Chatterji summoned to give evidence at Dinajpore. The move was in the interest of public service.

Bata Krishna Biswas, Under order to do supernumerary duty at Campbell Hospital, Calcutta, to Jhenidah Sub-division and Dispensary, district Jessore. The move was in the interest of public service.

Shamsuddin Ahmed, Held charge of the Kishoregunj Sub-division dispensary district Mymensingh on 20-5-35 during the absence of S. A. S. Dr. Satya Charan Mazumdar summoned to give evidence at Mymensingh. The move was in the interest of public service.

Nani Gopal Moitra, Did the duties of Resident Medical Officer, Campbell Hospital, Calcutta from 21-5-35 to 26-5-35 both days inclusive.

Satya Charan Muzumdar, Held charge of the Kishoregunj Sub-division and Dispensary dist. Chittagong 8-4-35 to 23-5-35 both days inclusive. The move was in the interest of public service.

Harendra Narayan Roy, Held charge of the Cox's Bazaar Sub-division and dispensary, district Chittagong from 18th to 15th May 1935 both days inclusive during the absence of S.A.S. Dr. Debendra Kumar Chakraverty summoned to give evidence at Chittagong. The Move was in the interest of public service.

FOR THE FORTNIGHT ENDING 30TH JUNE, 1935

Radha Raman Gossain, Placed on supernumerary duty at the Campbell Hospital, Calcutta, with effect from 30th May, 1935.

Nani Gopal Moitra, Supernumerary, Campbell Hospital, Calcutta, to 2nd S.A.S. Pasteur Institute, Calcutta.

Debendra Nath Sen Gupta, Sadar Hospital, Rungpore, to Held charge of the Gaibanda Sub-division and Dispensary from 23rd to 27th May, 1935 both days inclusive during the absence of S. A. S. Dr. Abinash Chatterji Das Gupta summoned to give evidence at Chandpur, Tippera. The move was in the interest of public service.

Jey Gopal Ghosh, Held charge of the Satkhira Sub-division and Dispensary district Khulna, from 29 to 31st May 1935 both days inclusive during the absence of Dr. Anath Bandhu Banerjee summoned to give evidence at Khulna. The move was in the interest of public service.

Mano Ranjan Gangully, Police Hospital, Comilla, Tippera, to Held charge of the Chandpore Sub-division and dispensary from 19th to 22nd May 1935 both days inclusive during the absence of Selection Grade S. A. S. Abinash Chatterji De summoned to give evidence at Rungpore. The move was in the interest of public service.

Shamsuddin Ahmed, Held charge of the Sherpur Dispensary district Mymensingh on the 29th and 30th May, 1935 during the absence of Dr. Hem Chandra Das Gupta summoned to give evidence at Mymensingh. The move was in the interest of public service.

Temporary Md. Faique Khan, Held charge of the Tamruk Subdivision and dispensary district Midnapore from 23rd to 26th May 1935 both days inclusive during the absence of S. A. S. Dr. Bata Krishna Biswas summoned to give evidence at Narail district Jessore. The move was in the interest of public service.

Shamsuddin Ahmed, Held charge of the Netrokona Sub-division and dispensary district Mymensingh from 15th to 23rd April, 1935 both days inclusive. The move was in the interest of public service.

Surendra Mohan Bhattacharjee, 1st S. A. S. Presidency Jail, Calcutta to Supernumerary duty, Campbell Hospital, Calcutta.

Jatindra Nath Banerjee, Jhenidah Subdivision and dispensary, Jessore. Leave on average pay for 2 months under F.R.

Abinash Chandra Nag, Mahalchari Dispensary, Chittagong Hill Tracts. Leave on average pay for 2 months under F.R.

Phani Bhuvan Ghosh, 2nd Sub-Assistant Surgeon, Pasteur Institute, Calcutta. Leave on average pay for 6 weeks under F.R.

Abdul Odud Chowdhury, Demonstrator of Physiology, Lytton Medical School, Mymensingh, to Held charge of the Netrokona Subdivision and Dispensary on the 23rd April, 1935 during the absence of Sub Assistant Surgeon Dr. Shamsuddin Ahmed summoned to give evidence at Kishanganj, Dist. Mymensingh. The move was in the interest of public service.

Surendra Mohan Bhattacharji, Did supernumerary duty at the Campbell Hospital, Calcutta, from the 23rd to 29th May, 1935 both days, inclusive.

Kabitish Chandra Das Gupta, Resident Medical Officer, Campbell Hospital, Calcutta, to 3rd Sub-Assistant Surgeon, Presidency Jail, Calcutta.

Debendra Nath Sen Gupta, Sadar Hospital, Rangpur, to Held charge of the Kurigram subdivision and Dispensary on the 6th June, 1935 during the absence of Sub-Assistant Surgeon Dr. Nepal Chandra Bhattacharji summoned to give evidence at Rangpore. The move was in the interest of public service.

Jagat Bandhu Bose, Held charge of the Lalbagh Subdivision and Dispensary, Dist. Murshidabad, from the 4th to 8th June, 1935 both days inclusive during the absence of Sub-Assistant Surgeon Dr. Jogendra Chandra Sen summoned to give evidence at Narail in the Dist. of Rajshahi. The move was in the interest of public service.

Temporary Md. Faique Khan, Held charge of the Tamruk Subdivision and Dispensary, Dist. Midnapore, on the 5th and 6th June, 1935 during the absence of Dr. Jitendra Mohan Chakravarty summoned to give evidence at Burdwan. The move was in the interest of public service.

Shamsuddin Ahmed, Held charge of the Jamalpore Subdivision and Dispensary, Dist. Mymensingh, on the 6th and 7th June, 1935 during the absence of Dr. Nirmal Chandra summoned to give evidence at Tangail in that district. The move was in the interest of public service.

Bimahesh Chandra Chatterji, On leave, to Additional Sub-Assistant Surgeon, Sambhu Nath Pandit Hospital, Bhowanipore, Calcutta.

Kedar Nath Basu, Additional Sub-Assistant Surgeon, Sambhu Nath Pandit Hospital, Bhowanipore, to Supernumerary duty at the Campbell Hospital, Calcutta.

Hony. Jamdr. Bibhu Bhuvan Roy, Police Hospital, Faridpore, to Held charge of the Gopalganj Subdivision and Dispensary, from the 24th to 26th April, 1935 both days inclusive during the absence of Khan Sahib Hadji, Sub-Assistant Surgeon, Dr. Bashiruddin

Ahmed summoned to give evidence at Faridpore. The move was in the interest of public service.

Jagat Bandhu Bose, Held charge of the Lalbagh Subdivision and Dispensary, Dist. Murshidabad, on the 12th and 13th June, 1935 during the absence of Sub Assistant Surgeon Dr. Jogendra Chandra Sen summoned to give evidence at Rajshahi. The move was in the interest of public service.

Rebati Mohen Sen, Natore Sub-Division and Dispensary, Dist. Rajshahi, to Ist Sub Assistant Surgeon, Central Jail, Alipore. The move was in the interest of public service.

Dhruba Chandra Chakravartty, Ist Sub Assistant Surgeon, Central Jail, Alipore, to Natore Subdivision and Dispensary, Dist. Rajshahi. The move was in the interest of public service.

Beni Madhab De, Leave on average pay for one month, under F. R. in extension of the 2 months' leave already granted to him.

Kshitish Chandra De, Resident Sub Assistant Surgeon, Sambhu Nath Pandit Hospital, Bhowanipore. Leave on average pay for 5 days under F. R.

Benoy Bhushan Chakravartty, Resident Medical Officer, Campbell Hospital, Calcutta, Leave on average pay for 2 days on Medical Grounds under F. R. in extension of 4 months leave.

Bibhu Prosad De, Resident Medical Officer, Campbell Hospital, Calcutta, Leave on average pay for one week, under F. R. in extension of the 6 weeks leave.

Emille Swolle. P. W. D. Dispensary, Rungpo, Sikkim. Leave on average pay for 2 months under F. R.

Mathura Mohan Barory, Ist Sub Assistant Surgeon, Central Jail, Midnapore, Leave on average pay for 2 months under F. R. in extension of the 2 months' leave already granted to him.

Rebati Charan Mitra, Ist Sub Assistant Surgeon, Presidency Jail, Calcutta, Leave on average pay for one month under F. R. in extension of one month's leave granted to him.

Sarada Prasanna Mazumder, Police Hospital, Bogra, Leave on average pay for 12 days.

Mohini Mohan Goswami, Leave without allowances for one year under F. R. in extension of the 4 years leave already granted to him.

STATEMENT SHOWING THE POSTINGS, TRANSFERS AND LEAVE OF THE SUB-ASSISTANT SURGEONS SERVING IN THE PUBLIC HEALTH DEPARTMENT ASSAM—JULY TO AUGUST 1935.

Dr. Md. Daneshuddin, Garu Hills, Leave 3 months.

" Md. Habibur Rohman, Ehidimic unit Kamrup, Leave 1½ months.

" Surendra Ch. Deb, Sylhet Dist., Leave 2 months.

" Abdur Rashid, Sibsagar Dist., Leave 2 months.

" Sudhansu Bhushan Dutta, Malaria Duty, Shillong to Budhimantapur, (Sylhet).

" Benoyendra Nath Dhar Chowdhary, Sylhet Town, to Maru, (Sylhet).

" Md. Abdul Quadir, Menu (Sylhet), to Bholaganj (Sylhet).

" Hari Nath Das, Jorhat, to Agia (Goalpara).

" Nalini Behari Das, Nowgong Dist., Leave 1 month 9 days.

" Sailaesh Ch. Das, Dhubri, to Choriabazar, (Sylhet).

" Mahananda Chakraborty, Tezpur, to Pathoria, (Sylhet).

" Aboni Mohan Sarma, N. Lakhimpur, to Madhavanagar, (Sylhet).

" James Suhli, Nowgong, to Bengari, (Darrang).

" Surendra Ch. Chakraborty, Leave 2 months extension of.

" Hafizuddin Ahmad, Khairabari (Darrang), to Nowgong.

" Amarendra K. Sen, Leave extension 1 month with full pay and 1 month 8 days half pay.

" Chakrapani Dutta, Chutiapara (Kamrup), to Maniarytinsake (Kamrup).

" Mohibur Rahman, Maniarytinsake (Kamrup), to Boroma (Kamrup).

" Moheswar Bordaloi, Boroma (Kamrup), to Chutiapara (Kamrup).

" Abdul Ganny, Leave, Gauhati (Survey duty).

" Sudhansu Bhushan Dutta, Budhimantapur (Sylhet), to Shatiajuri (Sylhet).

" Dinendra Kumar Dutta, Shatiajuri (Sylhet), Leave 1 month.

" Md. Habibur Rohman, Leave 15 days extension.

" Nalini Behari Das, Leave 1 month extension.

" Jogesh Chandra Das Gupta, Mangaldoi (Darrang), to Barigaon, (Darrang).

" Manick Chandra Bora, Gauhati, to Digaru, (Kamrup).

" Jagannath Sarma Barua, Nowgaong (Assam), to Tezpur (Survey duty).

" Pratul Chandra Das, Tezpur, to Nowgong (Assam).

" Amarendra Kumar Sen, Goalpara Epidemic Unit, Leave extension—1 month full pay, 1 month ½ pay.

" Syed Mahibul Hussain Ahmed, Darrang Dist., Leave 14 days.

" Chupnulha Angami, Tura, to Fulbari (Garu Hills).

Ending August, 1935.

STATEMENT SHOWING THE POSTINGS, TRANSFERS AND LEAVE OF SUB-ASST. SURGEONS OF ASSAM MEDICAL SERVICE (JN.) JULY TO AUGUST 1935

Dr. Nazibor Rohman, Borpathar (Sibsagar), Leave 1 month.

" Hiranmoy Bhattacharyya, Supernumerary Duty, Malaria Class at Pasteur Institute, Shillong.

" Hemanta K. Sen Gupta, Behali (Darrang), to Jagibhokategon, (Nowgong).

" Prafulla K. Kar, Jagibhokategon, Leave 3 months.

" Upendra Ch. Palit, Karimganj (Sylhet), Supy. Duty.

" Upendra Ch. Palit, Supy. Duty, Leave 3 months.

" Kamini K. Chakraborty, Chargaola (Sylhet), Leave 3 months 14 days.

" Abdul Jabbar Chowdhary, (S. grade) Supy. duty, (Sylhet), to Bhunabir (Sylhet).

" Sarada Charan Chakraborty, Bhunabir (Sylhet), Leave 4 months.

" Sashanka Sekhar Dhar, Supy. Duty. (Gauhati) to Baruaogong (Sibsagar).

" Surendra Nath Ghosal, Baruaogong (Sibsagar) to Behali (Darrang).

" Rizzad Ali Chowdhary, Leave extension 1 month.

" Bongshi Dhar Bora, Supy. Duty, (Darrang), to Kalaigong (Darrang).

" Md. Mushahid Ali, Kalaigong (Darrang), Leave 1 month.

" (Mrs.) Ka Plentisibon Rynjah, Shillong, Leave 1 month 22 days.

" Prakash Ch. Mazumdar, Leave extension 1 month.

" Pran Krishna Ghose, Leave Bhunabir (Sylhet)

" Surendra Ch. Mazumdar, Promoted to selection grade with effect from 15-10-34.

" Dakshina Ranjan Sen, Promoted to selection grade with effect from 16-4-35.

" Upendra Chandra Palit, Leave Sylhet, Supy. Duty.

" Prankrishna Ghose, Leave 7 days extension.

" Dr. Shashanka Shakhhar Dhar, Baruaogong (Sibsagar) to Gauhati, (Supy. Duty).

" Sambhunath Dutta, Bokakhat (Sibsagar), to Jorhat (Supy. Duty).

" Kumud Ranjan Dhar, (Confirmed from 6-4-35 and placed at the disposal of the P. H. D.

" Sudhansu Bhushan Dutta, Confirmed from 1-7-35, and placed at the disposal of the P. H. D.

" Md. Mushahid Ali, Leave Kalaigaon (Darrang).

" Bongshidhar Bara, Kalaigaon (Darrang), to Tezpur, (Supy. Duty).

" Lakit Chandra Bara, Dimapur (N. Hills), Leave 14 days.

" Haralu, Wakha (N. Hills) Leave 8 months.

" Sambhunath Dutta, Jorhat (Supy. Duty), to Wakha (N. Hills).

" Nielhauzie Angami, To be in tempy. charge of Wakha Dispy. pending arrival of Dr. Sambhunath Dutta.

" Surendra Chandra Purkayastha, Dalu (Garu Hills) Leave 4 months.

Quetta Relief Fund

ALL-INDIA MEDICAL LICENTIATES' ASSOCIATION QUETTA EARTH-QUAKE RELIEF FUND

(THROUGH DR. U. B. NARAYAN RAO, GENERAL SECRETARY, A.I.M.L.A., TO THE MAYOR'S FUND, BOMBAY)

Dr. R. M. Kar, Gauhati	...	1	0	0
" G. S. Das, "	...	1	0	0
" R. L. Muzamdar, Gauhati	...	1	0	0
" Mrs. H. Sumilla, "	...	1	0	0
" K. R. Das, Gauhati	...	1	0	0
" A. Gunney, "	...	1	0	0
" S. S. Dhar, "	...	0	8	0
" S. C. Datt, "	...	0	8	0

(THROUGH THE CIVIL SURGEON, AHMEDABAD, TO THE VICEROY'S RELIEF FUND)

Dr. Kadri, Ahmedabad,	...	5	0	0
R. S. Dr. C. R. Munkad, Ahmedabad	...	20	0	0
Dr. R. R. Phatak	...	5	0	0
" N. W. Joshi	...	10	0	0
" S. D. Mehta	...	10	0	0
" K. J. Tanna	...	5	0	0
" S. M. Vyas	...	15	0	0
" H. G. Desai	...	3	0	0
" C. M. Shah	...	5	0	0
" B. N. Patwa	...	5	0	0
" H. R. Josephine	...	2	0	0
" Pandit	...	10	0	0

(DIRECT TO THE PRIVATE SECRETARY TO H. E. THE VICEROY)

Dr. Ganpatram, D. Mahadevia	...	5	0	0
(THROUGH THE GENERAL SECRETARY, A.I.M.L.A., TO THE THREE PAPERS FUND, BOMBAY)				
" Friend "	...	100	0	0

	Total	207	0	0
Less money order commission on Rs. 7 from Gauhati to Bombay	...	0	2	0

Net Total	...	206	14	0
Amount already accounted for, Vide, I.M.J. Vol. XXIX No. IX, page 492	...	86	0	0

Grand Total	...	292	14	0
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Association Accounts

MONTHLY STATEMENT OF ACCOUNTS OF THE ALL-INDIA MEDICAL LICENTIATES' ASSOCIATION FAMILY FUND

July 1935

Receipts		Rs.	A.	P.	Payments		Rs.	A.	P.
Balance brought forward from last Month's Acct. ...	77	10	0	Death calls paid ...	866	8	8		
By deposit to call No. 140 and 142 @ Rs. 1 each ...	2	0	0	Money order Commission charges ...	8	4	0		
By deposit to call No. 154 ...	1	0	0	Miscellaneous charges ...	0	9	0		
By deposit to call No. 155 ...	2	0	0	Office establishment ...	20	0	0		
By deposit to call No. 156 ...	3	0	0	Postage stamps ...	5	0	0		
By deposit to call No. 157 and 158 @ Rs. 4 each ...	8	0	0	Journal and association fees ...	9	0	0		
By deposit to call No. 159 ...	6	12	0	Printing charges ...	14	8	0		
By deposit to call No. 160 ...	6	0	0	Deposit returned ...	4	0	0		
By deposit to call No. 161 ...	7	0	0	Deposited in P. O. S. B. account ...	76	2	0		
By deposit to call No. 162 ...	6	0	0						
By deposit to call No. 163 ...	7	0	0						
By deposit to call No. 164 ...	10	0	0						
By deposit to call No. 165 ...	10	12	0						
By further calls in advance & deposit. ...	18	0	0						
By deposit to calls arrears ...	95	8	0						
By deposit Admission fees call Cost of certificates ...	19	8	0						
By Journal and Association fees ...	8	0							
Interest received from S. B. account ...	15	14	0						
Withdrawn from Post Office ...	300	0	0						
Total ...	594	0	0						
				Total ...	594	0	0		

August 1935

Receipts	Rs.	A.	P.	Payments	Rs.	A.	P.
Balance brought forward from last month's Acct. ...	95	0	9	Death calls paid ...	45	2	9
By deposit to call Nos. 156, 157 and 158 @ Rs. 1/- each ...	8	0	0	Office establishment charges ...	20	0	0
By deposit to call No. 159, 160, 161 and 162 @ Rs. 2/- each ...	8	0	0	Postage Stamps ...	6	0	0
By deposit to call No. 163 ...	3	0	0	Stationery ...	6	14	0
By deposit to call No. 164 ...	5	0	0	Miscellaneous charges ...	9	12	0
By deposit to call No. 165 ...	6	0	0				
By deposit to further calls in advance. ...	6	0	0				
By deposit to admission fees ...	20	0	0				
Total ...	<u>146</u>	<u>0</u>	<u>9</u>	Total ...	87	12	9
				Balance in hand ...	58	4	0
				Grand Total ...	<u>146</u>	<u>0</u>	<u>9</u>

(Sd.) G. V. MOTIWALE,
Secretary
A.I.M.L.A. FAMILY FUND

(Sd.) M. R. FADNIS,
Manager
A.I.M.L.A. FAMILY FUND

Association Notes

(Proceedings of Branch meetings should be sent for publication *through the General Secretary only.* ED. I. M. J.)

**Resolutions of The Publicity Committee,
A.I.M.L.A. in respect of the following circulars.**

Circular No. 1: Resolved: That the election manifestos of the members who stand for Medical Council election be not published in the I.M.J.

Circular No. 2: Resolved: That the circular letter of Dr. Begum Abdul Ghafoor be not published in the I.M.J.

Lucknow Branch :

Proceedings of the meeting of the Lucknow Branch
held on 16.5.85.

1. Resolved: That this Branch offers its respectful congratulations to Col. H. C. Buckley on his returning to this Province as a permanent I.G.C.H.

2. Resolved: That this Branch learns with much regret the sad and untimely death of Dr. A. Souza, late assistant D.P.H., U. P., and offers its heart-felt sympathies to the bereaved family. Copies of the above resolutions to be forwarded to the persons concerned.

Proceedings of the meeting of the Lucknow Branch held on 18-6-85 at the residence of Dr. Bhandari. Present: Drs. A. Hussain, A. Singh, J. N. Mathur and Bhandari.

1. Resolved: That the following expenditure of stamps and stationery for the period from July 1934 to May 1935, be passed. Stamps: Rs. 8/4, Stationery: 0-2-0. Total Rs. 8/6.

2. Resolved unanimously: That Dr. Prahlad Dass Gupta be nominated as a member of the State Medical Faculty in place of Dr. S. L. Sharma whose term is shortly to expire; that for another seat, Dr. Begum Abdul Ghafoor be renominated.

8. Resolved: That this Branch lodges its emphatic protest against the recent amendments to The U. P. Poisons' Act and requests the Government to rescind them.

4. Resolved : This Branch records its appreciation of the valuable services rendered to the Licentiates by Dr. S. L. Sharma as a member of the State Medical Faculty and requests him, in the interest of his health, to take rest and to guide the Association as he has ever been doing.

5. Resolved : This Branch congratulates Dr. J. R. Mehta, L.P.H. on his being conferred the little of *Rai Saheb*.

6. Resolved : This Branch protests against the holding of the U.P. Standing Committee meeting at Aligarh on 19-6-85 without due notice and further requests that, at least in future, a clear notice of 10 days should be given before such a meeting is called for.

Proceedings of the meeting of the Lucknow Branch A.I.M.L.A. held on 29-6-85 at the residence of Dr. Bhandari.

Present: Drs. Ahamed Hussein, Tandon, Ajodya Singh, Bagawati Sahi and A. D. Bhandari. Dr. Ahamed Hussein was voted to the chair.

Resolution 1: This branch deeply mourns the loss of human life occasioned by the recent Quetta earthquake and offers its condolence to the bereaved families; this branch further calls upon its members to contribute liberally towards His Excellency's Relief fund.

Resolution 2. Read Dr. S. L. Sharma's letter to Dr. Bhandari, the Secy. to this branch which he (Dr. Sharma) had circulated among some of the members of the U. P. Standing Committee. This branch disapproves of the language used by Dr. S. L. Sharma against Dr. Bhandari. The personal aspersions against the latter are undesirable and uncalled for. The nomination of Dr. P. D. Gupta to the S.M.F. was unanimously and spontaneously suggested by this branch and not at the initiative of any individual member; further, therefore, this branch is of the opinion that, in the better and larger interest of the association, such personal attacks on individual members should have been avoided.

Kolhapur Branch

A monthly meeting of the above branch was held on 26—5—35 under the presidentship of Dr. D. Y. Phadnis of Kagal at Dr. Bapat's dispensary. Proceedings of the last meeting were read and confirmed. Dr. Phadnis read the first part of his paper on Birth control, the second part to be read at the next meeting. After light refreshment and a vote of thanks to Dr. Phadnis as the president and lecturer, the meeting dispersed.

An urgent and special meeting of the Kolhapur branch was held on 6-6-35 at 5-30 p.m. at Dr. Thembe's Lakshmi dispensary. Dr. G. B. Shinde was voted to the chair. Present : Drs. G. B. Shinde ; D. M. Shinde ; B. R. Patil ; Bapat ; Kibe ; Purohit ; Shrikande ; Chavan ; and Thembe.

The following resolution was passed unanimously—all standing:—"We, the members of the Kolhapur branch of the A.I.M.L.A. regret to record the sad and untimely demise of Dr. Y. G. Nadger, Surgeon and Professor of Anatomy at Grant Medical College and that in his death the profession has lost a capable surgeon and well known authority in Anatomy. The President is authorised to send this resolution to late Dr. Nadger's family at Dharwar."

Drs. Kibe, Shinde and Patil referred to Dr. Nadger's qualities of head and heart and said that these qualities earned for him the enviable position

as the first Indian Dean of the Grant Medical College.

Dr. Kibe, then gave a pathetic and vivid description of the condition of Quetta earthquake sufferers and expressed his willingness to work in the distressed area as a representative of Kolhapur branch. Pursuant to this, the following resolution was moved and passed unanimously.

"This branch resolves that Dr. Kibe be sent as its representative to work in and help the sufferers of the Quetta earthquake, provided that his travelling expenses are borne by the Bombay Mayor's relief committee or any other relief Committee. The president is authorised to make the necessary inquiries."

It was also resolved unanimously to start a "Quetta earthquake relief fund" under the auspices of this branch and to collect contribution from the medical men of Kolhapur. Dr. Purohit announced his donation of Rs. 25 towards this relief fund. Dr. Kibe had already sent Rs. 15 to The Viceroy's relief fund which was greatly appreciated. The following resolution was put by Dr. Kibe, seconded by Dr. Purohit and passed unanimously:

"This branch resolves that the contributions to the Quetta earthquake relief fund be collected only from the Medicos of Kolhapur, that a circular letter be sent to all the doctors in the locality and that Dr. Purohit be authorised to collect the contributions."

After a vote of thanks to the chair, the meeting was dissolved.

Gwalior Branch

A meeting of this branch was held at the Residency hospital, Morar, at 5-30 p. m. on 26-5-35. Members present: Drs. Rai Sahab Sunderlal; Miss C. Monolkar; L. Srivastava; Gupta; Chitale; Patki; and Pustake.

Dr. Sunder Lal was voted to the chair. The proceedings of the last meeting and the accounts were read and confirmed. Dr. Miss Manolkar and Dr. Pustake who attended the conference at Indore gave a short account of the conference and exhibition.

R. S. Dr. Sunderlal read Col. Tyrell's article on cerebro-spinal meningitis in the *I. M. J.*

A discussion about the present position of the S. A. Surgeons in the Gwalior State as compared to the other States and Provinces of India, took place and it was agreed that constitutional steps be taken to ameliorate their condition as early as possible.

The following resolutions were passed:—

1. The T. A. bill of Dr. C. Manolkar for Rs. 26-9-6 for attending the Indore conference as a delegate of this branch be passed for payment.

2. The worthy president of this branch, Rai Sahab Dr. Sunderlal be congratulated for getting a Jubilee Medal at the hands of the Resident at Gwalior.

3. The medical Licentiates of the Gwalior State be thanked for the co-operation and help they

rendered in making the Indore conference a success. 4. Dr. Koche of Ujjain be specially thanked for collecting money for the Indore conference.

Nadia Branch

A monthly meeting of the above branch was held on 30-5-35 at 7 p. m. at the residence of Dr. Lakshmi Kant, Pramanik, Ghurni, Krishnagar. Members present: Drs. H. N. Sen (in chair); B. C. Bhadra; J. Sarkhel; K. Ray; L. K. Pramanik and M. Sammadar.

Proceedings of the last meeting were read and confirmed.

Dr. K. Ray, Secy. of the branch, narrated the proceedings of the Indore Conference which were much appreciated. The T. A. bill of Dr. K. Ray for attending the Indore conference was examined and passed unanimously. Members are very glad that J. N. Sarkhel, S. A. S., Sadar hospital, has been enlisted as a member of this branch and he was elected as the Vice President for the current year in the place of Dr. A. Chakrabarty (transferred). Dr. N. Sammadar was elected as auditor of this branch for the year. After a brief scientific discussion, the meeting dissolved with the usual vote of thanks to the chair.

Benares Branch

Proceedings of the General body meeting held on 31-5-35.

Present:—Drs. Captain A. P. Misser (retd.), Vice president; B. C. Sen, Secretary; P. L. Jaini, treasurer; H. S. Mukherjee; Jagadish Saran; J. A. Ansari; Prahladi Anand and Ganga Singh.

Captain A. P. Misser was voted to the chair. The proceedings of the last meeting were read and confirmed.

Dr. Sen gave a short description of the proceedings of the last Indore conference which were much appreciated.

The T. A. bill of Dr. Sen was passed for payment.

Dr. Ganga Singh was requested by the Secretary to read a scientific paper at the next meeting to which he agreed.

Surat Branch

A meeting of the above branch was held on 30-5-35 at 6 p. m. at the Civil Hospital, Surat.

Present: Drs. J. J. Athugar; K. S. Dr. A. D. Patel; A. B. Talati; C. N. Vyas; M. H. Malik; and J. S. Pandya (non-member).

Dr. Athugar was proposed as president of the meeting by Khan Sahab Dr. A. D. Patel, seconded by Dr. A. B. Talati and carried unanimously.

The proceedings of the last meeting were read and confirmed.

It was proposed by Dr. C. N. Vyas and seconded by Dr. A. B. Talati that Dr. J. S. Pandya be enlisted as a member of the A. I. M. L. A. and the *I. M. J.* be sent to him by V. P. P. Carried unanimously.

It was proposed by K. S. Dr. A. D. Patel and seconded by Dr. A. B. Talati that the T. A. bill submitted by Dr. C. N. Vyas may be passed; as also the contingent bill and that the same be sent to the proper authorities for disposal. Carried unanimously.

24 Parganas Branch

A monthly meeting of the members of the above branch was held on 24-5-35 at 6-30 p. m. at the premises of Bengal Immunity Co., Bernagar.

Present: Drs. J. Sharma; K. L. Paul; N. B. Roy Choudhury and B. M. Paul. Dr. J. Sharma was voted to the Chair.

Read and confirmed the proceedings of the last meeting.

Resolved: That the T. A. bill of Dr. K. L. Paul of Alumbazar for attending the annual conference held at Indore be passed and sent to the G. S. for favour of action.

Resolved: That the annual report of this branch be read in the next meeting and that a social function be held in this connection.

The meeting dissolved with a vote of thanks to the chair.

Madura Branch

A meeting of the above branch was held at Dr. D. Nainar's Dental Clinic on 3-6-35 at 6 p. m. with Dr. R. Devadoss in the chair.

Sixteen members were present

The Minutes of the last meeting were read and confirmed. Dr. T. S. Venkatraman gave a vivid description of the proceedings of the last annual conference of the A.I.M.L.A. held at Indore in April, 1935.

There were congratulatory remarks on the election of Dr. A. Viswanathan as Editor and Manager of the *I. M. J.* This meeting wishes him all strength to make the Journal a great success.

Resolved that a sum of Rs. 90/- only being the T. A. for Dr. T. S. Venkatraman who attended the last Indore Conference as a delegate from this branch be passed for payment.

This meeting of the Madura Branch of A.I.M.L.A. congratulates Dr. M. V. Natesan, Radiologist, Govt. Head quarter Hospital, Madura—a member of our association—on his being awarded the King's Silver Jubilee Medal.

Dr. S. Rajagopal was at home to the members. The meeting dissolved with a vote of thanks to the chair and the host.

Habiganj Branch

Proceedings of a General meeting of the Habiganj Branch of the A. I. M. L. A. held at the Habiganj civil Hospital on the 4th May, '35.

1. Members Present:—

(1) Dr. R. M. Kar. (2) Dr. P. C. Ray. (3) Dr. Habeebur Rahman (4) Dr. Abdul Haque. (5) Dr. M.

B. Dhar. (6) Dr. S. R. Bhattacharjee. (7) Dr. D. N. Madak. (8) Dr. Miss P. Das (by proxy) (9) Dr. A. C. Das Gupta (by proxy)

Owing to presence of Epidemic in the Subdivision some of the members could not attend.

2. Dr. P. C. Roy was voted to the chair.

3. The Proceedings of the last meeting were read and confirmed.

4. Read a paper on an interesting Case note sent by Dr. A. N. Bhattacharjee of Bholaganj Dispensary and members took interest in it.

5. On the arrival of a labour case to the Hospital the scientific section of the meeting was closed with a vote of thanks to the chair.

Resolutions Passed:—

1. This meeting while noting with pleasure the activities of some of the members of the Association and specially of Dr. S. C. Chakravarty Secy., Silebar Branch towards the ensuing His Majesty the King Emperor's Silver Jubilee Celebration, offers its loyalty to the throne and wishes Their Majesties long life.

2. Resolved that the authorities be requested to designate, the Doctor of the L. B. Dispensary as 'Medical officer' instead of 'Local Board Doctor' which is not a happy expression at all.

3. This meeting takes strong objection to the unbecoming mode of address of the Sub-Assistant Surgeons and L. B. Drs. viz—Substituting the courtesy title by the official designation—by some officials (of some departments) and draws their attention to the Assam Government Letter No. 2007 m D. 1. 7, 81 to 1. G. C. H., regarding the use of the courtesy title "Dr." to the Class, a copy of which has been circulated by the Government.

4. Resolved that D. P. H. Assam be requested to abolish the present artificial distinction in the two transferable sections of the S. A. Ss of the P. H. Department, in regard to the special pay, and introduce a uniform time-scale special pay, so long the present system is to continue.

5. In view of the very nature of the work of the S. A. Ss on Epidemic unit, P. H. Department, whose work is admittedly harder than those in charge of Dispensaries (General P. H. D.), demanding them to be constantly on tour over an extensive field with a great personal sacrifice and heavy pecuniary loss, resolved that authorities be requested to grant the S. A. Ss on Ep. unit, a special allowance over those in General P.H.D., in case the present practice is to continue.

6. Resolved that D. P. H. Assam, be requested to fix the period of Service of the Epidemic unit S. A. Ss and on the completion of the term, they be offered the charge of the P. H. Dispensary taking into account their whole length of service with regard to the special pay.

7. Resolved that D. P. H. be requested to change the nomenclature *Public Health Department Dispensary* into *Public Health Dispensary* as the latter sounds well.

8. This meeting is sorry to lose the Services of two of its active members at a time, arising out of

the transfer of Dr R. M. Kar, the Ex-Secretary of the Branch and the appointment to a Government Post of the Lady Doctor Miss P. Das, both of whom were popular to the public and dear to the colleagues; and while wishing them long life and success; requests them not to sever their connection from the Association.

9. This meeting requests the prov. Secy. to arrange to hold the Annual provincial conference at an early date.

A meeting of the Habiganj Branch of the A.I.M.L.A. was held on 5-6-35 at Habiganj. Present: Drs. H. Rahman; P. C. Ray; A. Haque; D. N. Modak; S. C. Dutt; and A. C. Das Gupta.

Dr. P. C. Ray was voted to the chair. The following office bearers were elected.

Dr. A. C. Das Gupta, *President*.

„ S. C. Dutta, *Vice-President*.

„ P. C. Ray, *Secretary and Treasurer*.

Baniya Chong P.O. Sylhet.

Resolved: That the Branch contingency of Rs. 8-5-6 from January to May 1935 be passed and forwarded to G.S. for adjustment.

Resolved: That the members of this branch be exempted from subscription for the year 1934

The Meeting terminated with a vote of thanks to the chair.

Fatehpur Branch

A general meeting of the above branch was held on 20-6-35 at 4 P.M. in the Sadar Hospital.

Present: Drs. Raghunath Das (in chair); R. N. Varna; G. P. Tiwari; R. R. Misra and R. M. Tiwari.

Resolutions: Circular letter of the 8th June from the Provincial Secretary U.P., Dehradun to the secretary, Fatehpur Branch directing the latter to call for a branch meeting and to nominate two licentiates to the governing body of the U.P. State Medical Faculty in place of Dr. S. L. Sharma, F.S.M.F. (Hon.) and Begum Abdul Ghafoor, F.S.M.F. (Hon.) whose term will shortly expire: it is passed that these gentlemen should continue as such.

Circulars No. 8 and 9 from the G.S., A.I.M.L.A. were read.

Proceedings of the last meeting read and confirmed.

Cuttack Branch

An ordinary meeting of the above branch was held on 10-6-35 under the presidentship of Dr. K. C. Misra. Present: Drs. K. C. Misra; K. Daliappa; A. T. Ghosh; B. Kar; S. M. Kar; K. M. Misra; and B. Chand.

It was unanimously resolved that Dr. K. Daliappa be elected as secretary to this branch in the place of Dr. A. T. Ghosh (resigned); that the office of the treasurer be amalgamated with that of the Secretary and that Dr. K. Daliappa will carry out the duties of both these offices.

T. A. bill of Dr. B. Kar for attending the 27th Conference at Indore amounting to Rs. 81-4-0 was passed.

Ludhiana Branch

An emergent meeting of the above branch was held on 4-6-35 at the Medical hall of Messrs. C. Bhan and Co., Ludhiana, under the presidentship of Khan Sahib Dr. Tustam Ali. Following resolutions were passed.

1. That this meeting learns with profound regret the harrowing tales of the terrible disaster at Quetta and extends their deepest sympathies to the injured and to the relatives of those who have been killed.

2. That this meeting resolves to offer the services of all the local members of the Association for the relief of the wounded.

3. That this meeting resolves to contribute to the relief fund and authorises Khan Sahib Dr. Rustam Ali, the President, and Dr. Chahil Das, the Secretary, and Dr. Lajpat Rai, the treasurer, to collect subscriptions from the local medical licentiates and to issue an appeal to those in the district.

4. That a copy of the above resolutions be forwarded to.

i. Deputy Commissioner, Ludhiana.

ii. Civil Surgeon, Ludhiana.

iii. The provincial Secretary and the G. S. of the association.

iv. The Press.

Nainital Branch

An emergent meeting of the above branch was held at Indra Pharmacy, Nainital, on 11-6-35 at 6 p.m. Dr. Chatter Singh was voted to the chair.

Present: Drs. Chatter Singh; Ratan Singh; Shrinath Singh; I. L. Ganguli; R. S. Garga; and L. B. Saxena. Read Letter No. 8098 of 6-6-35 of G. S. and resolved that this Branch fully sympathises with the sufferers at Quetta and requests the members to subscribe to the relief fund. The money may either be sent to G. S., or to the branch Secretary. A copy of this resolution with a copy of G. S.'s circular be circulated amongst the members.

Read letter of the Provincial Secy. dated 8-6-35 regarding nomination of two members to the U. P. State Medical Faculty: resolved that Dr. S. L. Sharma and Dr. Begum Abdul Ghafoor be nominated. If Dr. Sharma is not willing, then Dr. P. D. Gupta be taken in his place.

Resolved that, as Dr. R. S. Garga, Secy. and organiser of this branch is under orders of transfer to Barelly, Dr. Raj Bahadur be elected as a joint Secy; further resolved that this branch records with gratitude the services of Dr. R. S. Garga to this branch.

Resolved that this Branch urges the provincial secy, U. P. to kindly let this branch know about the up-to-date expenditure of the amount realised for

five years' course propaganda work and how the remaining money in question is to be utilised.

With a vote of thanks to the chair and to the host the meeting ended.

An Emergent Meeting of the above above branch was held at the house of Dr. R. S. Garga on 24-6-35 at 6 a. m. Dr. G. Thappa, Vice-president, was voted to the chair.

Resolutions passed:

1. The proceedings of the last meeting were read and confirmed.

2. Read Dr. S. L. Sharma's (President, U. P. Branch) letter dated 12-6-35: resolved that this branch lodges its emphatic protest against the recent amendments to the U. P. Poisons Act promulgated by the Govt. and published in the U. P. Gazette dated 18th May, 1935 and respectfully requests the Govt., to rescind the same as they lay disabilities on medical practitioners whose qualifications are registrable.

3. That the contingent bill of the branch from 17-5-35 to 28-6-35 for Rs. 7-3-6 be passed.

With a vote of thanks to the chair the meeting ended.

Dacca Branch

A Special Meeting of the above branch was held on 19-12-34 at 6-30 p. m. at the Dacca Medical School.

Agenda: To discuss the Rule passed by the Dacca Board of Intermediate and Secondary education regarding the Qualifications of teachers to teach hygiene in High Schools under the Board.

More than 88 members were present including the Assistant Surgeons Drs. M. M. Khan and N. K. Roy.

Dr. S. C. Basak was voted to the chair. The following resolutions were passed:

1. That this meeting of the Dacca Branch of the A. I. M. L. A. expresses its deep sense of regret and strongly protests against the resolution of the Board of Intermediate and the Secondary Education, Dacca, in which it has excluded the L.M.Ps and L.M.Fs from becoming teachers of Hygiene in H. E. Schools under the Board which privilege they were so long enjoying along with the graduates and discharging their duties satisfactorily as will be seen from the records of Final Examination of Hygiene under the Board.

2. That, further, this Association brings to the kind notice of the authorities that both Licentiates and Graduates are registered as medical practitioners in the same Register of the province under the same Act of 1914 and that, therefore, both are equally eligible and qualified for teachership of Hygiene and allied subjects in the Educational Institutions in Calcutta and other university Boards of Education. Even in the Government medical Schools the licentiates are recognised as good and efficient teachers. In this connection it will not be out of place to mention that the present teacher of Hygiene and Medical Jurisprudence of the Dacca Medical School, one of the oldest and premier medical Schools of Bengal, is a L.M.P., not to say of other instances. The course of Hygiene in Medical Schools is a complete course, much higher than the most rudimentary course prescribed and taught in the

H. E. Schools. Further, this Board may not be unaware of Dr. B. M. Das Gupta, a member of the L. M. P. class and of whom our Association is justly proud, who is at present officiating as the Professor of Protozoology in the Calcutta School of Hygiene where both the graduates and licentiates are trained for D.T.M. and L.T.M.

3. That this Association, therefore, requests the Board, through its President, to reconsider its resolution in this connection and to substitute the minimum qualification for teachership of Hygiene in H. E. Schools under its control to Registered Medical Practitioner in place of the resolution adopted by it in its meeting of the 8th Dec. 1934.

4. That a copy of the above resolutions be sent to the President of the Board of I and S. Education, Dacca and to the provincial and General secretaries of the Association for information and further action.

[This is indeed a retrograde move by the Board concerned. If the medical licentiates were allowed to be teachers of Hygiene in the schools under its control before, there is now no reason to alter the status quo, especially in view of the fact that the present medical education of the Licentiates has much improved and more efficient than what it was a decade ago. Either the board is ignorant of this fact or it has acted under an ancient prejudice. We would sincerely appeal to the Board to reconsider its resolution which is inconsistent with its past and medically unethical. The Medical Licentiates of Dacca require no special or larger favours than what they are really entitled to; that they are entitled to greater things than a mere teachership in Hygiene in secondary schools has been acknowledged on all hands. Ed. I.M.J.]

The annual Meeting of The Dacca branch of the A.I.M.L.A. was held on 28-8-35 at the Dacca Medical School at 6-30 p.m.

Present: Drs. B. K. Sen; J. M. Muzamdar; S.C. Roy; A. M. Das; K. N. Basu; N. Das Gupta; B. Chakravarty and B. K. Dey.

Dr. N. Das Gupta was voted to the chair.

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

2. The annual report and audited accounts were read and passed.

3. The following were elected as office-bearers for the year 1935 President, Dr. G. Azam; Vice-President, Dr. N. Das Gupta; Secy. and Treasurer, Dr. B. K. Sen; Joint Secy. Dr. Ziauddin; Auditor, Dr. K. N. Basu. Members of the Committee: Drs. S. C. Roy; B. Dey; D. D. Gupta; S. N. Basu; S. P. Basu; S. Maitra; A. R. Datta and A. M. Das.

4. Circular No. (?) of the G. S. was read and discussed and all the members present approved of the suggestion.

5. Records of the Association should be handed over to the new secretary by 31-8-35.

6. The meeting expresses its heart felt thanks to Dr. S. C. Roy, the retiring secretary, for the services rendered by him for the last 5 years.

An emergent meeting of the Dacca Branch, A.I.M.L.A. was held on 7-4-35 at the Dacca Medical School to discuss the following agenda:

1. To elect a delegate to the Indore Conference to be held on 17th, 18th and 19th instant.
2. To discuss the present situation of the branch.
3. Miscellaneous.

Members present Drs. B. K. Sen; M. Barat; A. M. Das; S. C. Ray; B. N. Roy; K. N. Basu; D. D. Gupta; M. Shett; D. N. Basak; S. C. Khan; and N. D. Gupta. It is resolved that, since Dr. Bholanath Roy, the elected representative of this branch, is unable to attend the conference, Dr. M. Shett be elected in his place to represent this branch and this be communicated to the G. S. and the provincial Secretary.

Bhandara Branch

Proceedings of the meeting of the above branch held on 15th June 1935.

The following members were present:—

1. Dr. M.D. Barwe, L.M.P., L.C.P.S., B.Sc., M.B.B.S.,
2. Dr. G. R. Wywabare,
3. Dr. M. V. Waranashiwar,
4. Dr. B. J. Andhare,
5. Dr. G. V. Dawoo.

The minutes of the last meeting were read and confirmed.

Resolutions 1. Unanimously resolved that the Bhandara branch of the All-India Medical Licentiates' Association offers its respectful protest against the lowering down of pass marks of the Medical Examinations held by the C.P. Medical Examination Board from 50% to 40% separately in each subject and requests the C.P. Medical Examination Board, Nagpur, to kindly reconsider their decision and bring back the standard to its former level in the interests of efficiency.

2. Resolved that this Branch requests the Inspector General of Civil Hospitals, C.P., Nagpur, to make an early move for the establishment of a Medical Council in this Province exactly on the lines of other provinces. (Passed unanimously).

3. Resolved that the members of this Branch should contribute Rupee one per head towards the Quetta Earthquake Relief Fund.

4. The T. A. Bill of Dr. D. N. Rekhade was placed and its consideration was postponed to the next meeting.

Bombay Branch

A Managing Committee meeting of the above branch was held on the 13th January 1935 at 94 Girgaum Road, Bombay 4, when 7 members were present.

The following resolutions were passed.

1. Minutes of the last meeting were read and confirmed.

2. Minutes of the Annual General Body meeting were read and approved.

3. Decided to hold a clinical meeting on 8-2-35 Dr. B. Y. Paranjpye to be requested to open a discussion on "Conjunctivitis".

4. Directed the Secretary to send the abstracts of only the last 2 General Body meetings to the General Secretary, for publication in the Journal.

5. Accounts up to 1-1-35 of the Secretary were checked and passed.

A clinical meeting of the above branch was held at the Association Hall (94 Girgaon Road) on 27th January 1935 at 8-30 P.M.

Dr. B. Y. Paranjpye, Ophthalmic Surgeon, gave an instructive lecture on the subject (Conjunctivitis). While explaining the pathology of Conjunctivitis he pointed out the peculiarities existing in the same in the young and the old. Conjunctivitis whether bacterial, traumatic or reflex (such as occurring in Plague, Typhoid, acute Exanthematous fever etc.) may be divided into the following clinical varieties.

1. Trachoma,
2. Chronic Conjunctivitis,
3. Acute Conjunctivitis,
4. Phlyctenular Conjunctivitis,
5. Angular Conjunctivitis,
6. Follicular Conjunctivitis,
7. Gonorrhoeal Conjunctivitis and
8. Spring catarrh.

In the differential diagnosis between iritis and conjunctivitis, the speaker stressed the value of Liqr. Adrenalin and Flourescine drops in demonstrating corneal ulcer.

As regards the treatment, the speaker gave some useful formulæ and hints.

A General Body meeting of the above branch was held on 3-2-35 at the office hall at 9-30 P.M. Dr. B. Y. Paranjpye was in chair, when 9 members were present.

1. Minutes of the previous meeting were read and confirmed.

2. A member gave information to the effect that the post so far reserved for the Licentiates at the Haffkin's Institute is now going to be abolished. But as the information was not authentic, the consideration of the matter was postponed.

3. It was unanimously resolved that Dr. V. G. Vaishampayam, M.L.C. should be invited at a general body meeting during his stay in Bombay at the time of Council Session.

The meeting then terminated, with a vote of thanks to the chair and a light refreshment.

Managing Committee meeting of the above branch was held on 24-3-35 at 94, Girgaon Road, when 8 members were present.

1. Minutes of the last meeting were read and confirmed.

2. Vouchers No. 1 to 7 amounting in all to Rs. 9-8-6 upto 16-8-35 were checked and passed.

3. Clinical meeting. The Secretary was requested to arrange for a clinical meeting and he was directed to request Dr. U. B. Narayan Rao to speak.

4. The meeting terminated with a vote of thanks to the chair.

A General Body meeting of the above branch was held on 28-8-35 when 15 members were present. Dr. A. A. Baliga, F.R.C.S. (Eng.), presided.

1. Minutes of the last meeting were read and confirmed.

2. A letter from the Hindu Mutual Life Assurance Ltd., Calcutta, regarding the revised scale of medical fees for similar case examined by a licentiate and a graduate Practitioner was read. The letter was considered and the following resolution was passed.

"Resolved a. That this General Body meeting of the A.I.M.L.A., Bombay branch learns with great concern and strongly protests against the invidious distinction made regarding the scale of medical fees paid to the Graduate and Licentiate Medical Practitioners examining proponents in the Insurance Companies for similar amounts and

b. That this meeting strongly protests against such gross injustice meted out to the Licentiates and requests the governing body to consider the urgent removal of the distinction.

c. That a copy be sent to the President of the meeting of Insurance Companies to be held to-morrow.

d. That copies also be sent to the different Insurance Companies that are known to be making such differences. (Resolution moved by the chair and passed Unanimously).

3. The following resolution was moved by Dr. A. D. Mastakar and seconded by Dr. R. R. Tavargiri.

"That this meeting of the Bombay Branch of the A.I.M.L.A. requests that the Head Office of the A.I.M.L.A. should be permanently in Bombay with a permanent Secretariat.

That the copy of the above resolution be sent to the Conference with Bombay Branch delegate". Passed unanimously.

The guest Dr. V. G. Vaishampayam, M.L.C. was received on arrival and introduced to the members present by the President in a short speech to which Dr. Vaishampayam made a suitable reply.

The house came to know that the Bombay Legislative Council were going to introduce a bill for registration of Nurses, Midwives and Health Visitors and that they have so far not included any representatives of the Licentiates class in the Council. The matter was discussed and the following resolution was passed:—

"While strongly approving of the introduction of a bill for registration of Nurses, Midwives and Health Visitors, the General Body of the A.I.M.L.A., Bombay branch, finds that there are no representatives of the Licentiates in the Council and therefore urges on the Legislators and appeals to them for the inclusion of at least two Licentiates of whom one shall be a Lady Doctor on the Council".

Further resolved that the copies of the above resolution be forwarded to 1. Medical Representatives of the Bombay Legislative Council, 2. To the members of the Legislative Council and 3. Home Member of the Bombay Legislative Council.

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Enquiries regarding the All-India Medical Licentiates' Association should be addressed to Dr. U. B. Narayan Rao, L. C. P. S. (Bom.), General Secretary, 94, Girgaum Road, Bombay.

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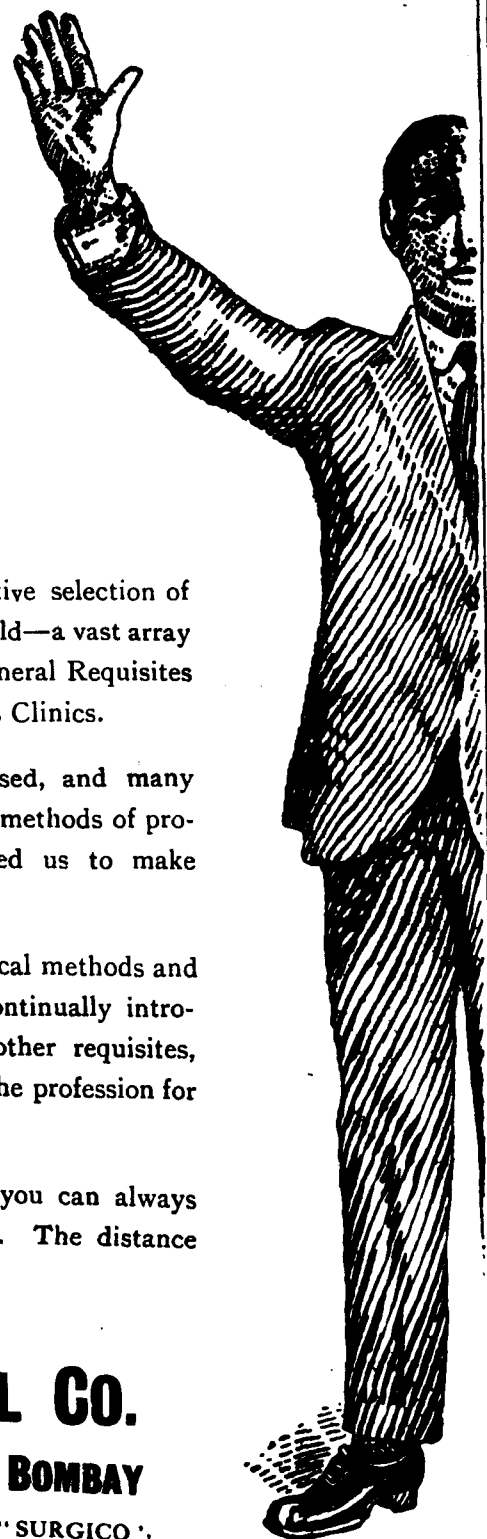
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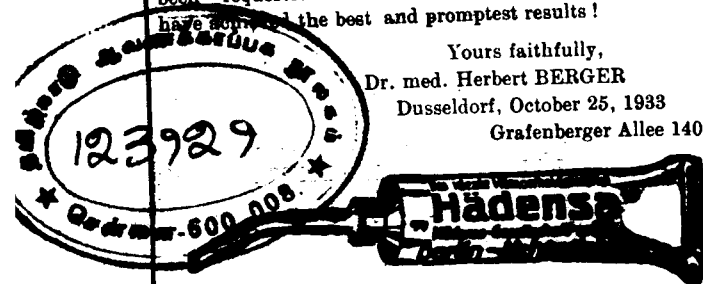
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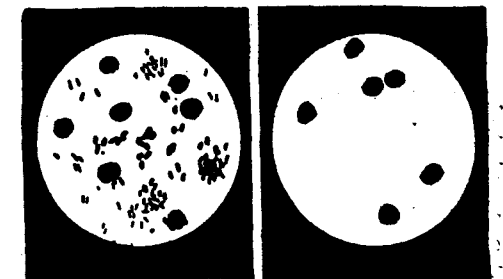
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