

The Bulletin

OF THE

South Indian Medical Union.

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THE
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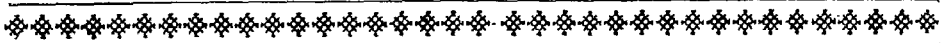


ANNUAL GENERAL MEETING

18TH JULY 1932

6-15 P.M.

AT 32, BROADWAY.



BULLETIN
OF THE
SOUTH INDIAN MEDICAL ASSOCIATION.

JUNE 1932.

Medical Education.

Medical education has become a subject of great interest to medical men in this country. If this be the result of the Medical Council Bill introduced in the Legislative Assembly, then India has cause to be thankful to the General Medical Council of Great Britain which gave the immediate stimulus for this activity. But it is a little difficult to see whither all this enthusiasm leads. We see signs of a craze for change. Some one miserably ignorant or intensely malicious has said that the standard of education in this country is unsatisfactory. This has gone the round from mouth to mouth. And most people engaged in medical education in this country seem now to believe that the standard should be immediately raised. No body has yet seriously indicated where the standard is faulty. Improvements suggested under these conditions would be no better than a quack's nostrums. The common effort in all these improvements seems to be to imitate what is done in other countries. But the introductions of the faults of those countries would not improve education here.

Some of the results of such imitation are the following. The period of education has been lengthened to five years and a half. The various branches of medicine have been partitioned into an ever increasing number of departments, in each of which students are expected to acquire a more detailed knowledge from lengthy discourses

by enormous specialists. The examinations have been made more nerve-racking by increasing the number of examiners. And the candidates are required to exhibit at these ordeals intimate knowledge of elaborate laboratory technique. We do not know if those who introduced these changes here had any special object in view except that such things were done elsewhere. It would therefore be useless to ask if they are satisfied that these changes have improved the quality of medical education in Madras. We are not educationists and we do not therefore presume to criticize the reformers. But to an interested outsider these changes appear as if the leaders of medical education in Madras resort to imitation of models rather than adoption of rules. What the great ones do, the lesser ones seem to be hurriedly copying. We cannot otherwise understand why the Board of Examiners should compel the Licentiate candidates to face a multiplicity of examiners, nor why the students should listen to the specialists' lectures of lengthening weariness. Would it not be wise on the part of those concerned to cry halt to these endless changes forwards and backwards and to wait a decent number of years to see the full effect of the changes before they introduce some more imaginary improvements?

GENERAL NOTES.

Some time ago we criticized the need for a lady tutor to the lady students of the Madras Medical College. The Government evidently from a sense of fair-mindedness have now appointed a gentleman tutor apparently for gentleman students of the same college. Probably three gentlemen have been appointed as the gentleman students are much larger in numbers. Definite proof of progress—this!

* * *

It is rumoured that the government has had a windfall in its revenue as a result of which the notices of retirement that have been served on a number of civil surgeons of over 25 years' service are likely to be withdrawn.

* * *

Probably one of the reasons that has compelled the government to think of charging patients (the very poor excepted) for drugs, expensive and many inexpensive, is that they might be enabled to retain the services of so many senior officers. After all, without men how can medical relief be administered? If patients cannot get drugs, that is a mere trifle.

* * *

It cheers one's heart to see a grateful service ever on the alert to augment the revenues of the State. For some time now, the medical practitioners of this province have been under the impression that they could refer poor patients to the Government X-Ray Institute for free radiological advice. We understand that the authorities of the institute

resent this indulgence to the poor on the ground that if these patients can pay for the services of their medical attendants they should be able to pay also for the radiologist's advice. Evidently the authorities of the X-Ray Institute know better the capacity of the poor to pay. We realize their inability to appreciate the fact that the private practitioner often times gives his services free to the poor patients. These patients if they were admitted into the hospitals for diagnosis and treatment, they would cost the State a good deal more than the free radiological advice.

* * *

We are sure our readers would be glad to peruse the announcement on the cover of the bulletin. We hear many complaints about the inconvenience of referring patients to the Government X-Ray Institute. Dr. P. Rama Rau has been doing radiological work for a number of years and with his recent study of modern methods in radiology in Europe he should be of great help to the practitioner who is in need of the radiologist's help.

UNION IS STRENGTH.

ADD TO IT.

BULLETIN

OF THE

SOUTH INDIAN MEDICAL ASSOCIATION.

JUNE 1932.

The Pneumonias: Some Impressions and Experiences.*

K. C. Paul.—

The Pneumonias, Lobar and Lobular, are amongst the commonest of the ailments the flesh of man is heir to, and the toll of lives they claim each year is but simply appalling. Of their grave import even the Ancients were well aware, and from the days of Hippocrates every venue of therapeutic effort has been explored in the attempt to combat their ravages. True it is, the mortality rate has fallen somewhat in recent years, we like to believe that this is because of modern therapeutic developments, but these diseases continue yet to inspire awe and strike terror in the minds of both physicians and laity alike. In their presence even the most skilled of physicians often feels impotent, so little could he do, strive as best as he would, to check their rage or still their ire. To one of them, lobar pneumonia, the late Sir William Osler aptly applied the epithet, "Captain of the Men of Death", which John Bunyan employed for tuberculosis; the other, lobular pneumonia or bronchopneumonia, is no whit less lethal or less terrible, though it often is seemingly milder and runs a less dramatic course. Both are equally disastrous to the victim, death lurking in their wake waiting for opportunity. To me it seems, however, that the

lobular is even more fraught with dangers than the lobar. But it is not so much the lobular or the lobar distribution of the pneumonic process that decides the fate of the patient, but rather the type of micro-organism causing the lesions. Cecil says, "If I must have pneumonia I am indifferent whether it shall be lobar pneumonia or bronchopneumonia, nor am I particularly concerned whether I have two lobes or three lobes involved; but I do care very much whether my infection is caused by Friedlander's bacillus or pneumococcus Type IV. Furthermore, if streptococcus is the causative agent, I am very anxious to know whether it is *Streptococcus hæmolyticus* or *Streptococcus viridans*. There is the difference here between 1 in 2 chances and 9 in 10 chances for recovery." Nevertheless, bacteriology apart, I venture to suggest that the Pneumonias, of whatever kind and causation, are so full of grave situations that to hazard a prognosis where they are concerned is to throw discretion to the winds. I am minded in this connection to recall to you an aphorism of the late Dr. Gee which runs thus: "So many and so great are the uncertainties in the course of a case of pneumonia that a prudent man will not attempt to predict the end, as to recovery or death. Many patients, who for days show no unfavourable symptoms, die: some patients, who look as if they could not survive, recover." In reminding you of these general facts, I am aware I am neither breaking new ground nor helping to solve the problems that confront us in dealing with cases of pneumonia; but that is scarcely my main purpose in opening this discussion. Of that, however, no need to make mention here.

The Pneumonias are with us always but they occur with greater frequency at certain seasons than at others. The medical wards of no Hospital in Madras is scarcely ever without a case of

* Papers read before the South Indian Medical Union.

pneumonia, but the number of beds occupied by pneumonia patients varies with the seasons. I have found that the greatest incidence of these diseases occurs in the months of December, January, February and March, and the lowest in June, July, August and September. According to Sir Leonard Rogers, the months of November, December, January and February provide the greatest number of cases, and July, August, September and October, the least. I have no comment to offer on his findings, they agree so closely with my own. It is, however, noteworthy that this year more cases of the Pneumonias were admitted into the medical wards of the Government Royapuram Hospital in April and May than in January, February, or March. I am lacking in an adequate explanation of this seeming aberrant incidence. I believe that the incidence of the Pneumonias is more or less dependent on changes in the atmospheric conditions, and that the greatest number of cases occur during the months in which sudden changes in the humidity and temperature of the atmosphere are frequent; and I consider it probable that the direction of the prevailing winds has also an influence on the incidence of these diseases. Perhaps this year the meteorological conditions were during April and May favourable for a high incidence of the Pneumonias. I have not studied the weather reports with any care, and, therefore, do no more than offer this as a suggestion.

The Pneumonias are Acute Infectious Diseases in which the essential morbid lesions are located in the lungs. They are caused by certain pathogenic micro-organisms, the more important of which are Frankel's *Pneumococcus*, certain strains of *Streptococci*, Pfeiffer's *Influenza bacillus*, and Friedlander's *Pneumobacillus*. The pneumococcus is the causal organism in the great majority (95 per cent) of cases of

lobar pneumonia, so much so that this disease is generally looked upon as a specific infectious disease caused by the pneumococcus. A few cases of lobar pneumonia are of streptococcal origin, and Friedlander's bacillus is responsible for about 1 per cent of cases of this disease. Lobular or broncho-pneumonia has no specific bacteriology, any of the organisms mentioned (and some others besides) being capable of producing it. A primary form of bronchopneumonia, which is commonly seen in children, is usually produced by the pneumococcus, but this also may be caused by *Streptococcus pyogenes*. Bronchopneumonias are generally secondary, and the organism which causes the primary disease may set up the pneumonic process when suitable conditions exist. Influenzal bronchopneumonia is occasioned by the secondary invasion of the lungs by the influenza bacillus, and is not a primary condition.

There are several strains of *Pneumococci*, and recent work has been successful in sorting out at least four different types. Types I, II, and III are "fixed" types, and Type IV is heterogeneous. The relative frequency with which these different types cause pneumonia has been carefully studied in various parts of the world, particularly in South Africa, America, and England. As a result it is generally admitted now that Type I pneumococcus accounts for about 35 per cent of cases, Type II for 25 per cent, Type III for 10 cent, and Type IV for 30 per cent. These figures are true only for lobar pneumonia cases. With regard to broncho-pneumonia, Type I is responsible only for 2 per cent of cases, Type II for 10 per cent, Type III for 10 per cent, and Type IV for the remaining 78 per cent. The mortality rate of the pneumonias caused by the different types of pneu-

mococci is also varying, Type I cases showing a mortality of about 25 per cent, Type II, 35 per cent, Type III, 55 per cent, and Type IV, 17 per cent. These facts are very illuminating, but of greater importance to us in practical medicine is the possibility suggested by the existence of the different serological types that specific antisera may be available for the curative therapy of infections with the "fixed" strains. Work already carried out in this direction has not been unfruitful of results, but more remains yet to be accomplished. To this question of specific therapy I shall refer again later. In the meantime, I wish to point out, in Boyd's words, that "the recognition of the existence of separate types of pneumococci has thrown welcome light upon more than one of the puzzling features of pneumonia. The fact that a patient who had suffered from one attack of the disease not infrequently became a victim for the second time used to be taken as indicating that one attack predisposed a person to a second. We now understand the truth, namely that an attack from one of the fixed types does protect a person against attack by the same type, does confer upon him a high degree of immunity against that type but offer no protection against attack by one of the other types." The problem is, of course, one of specific immunity; the "fixed" strains producing each its own specific antibodies.

The Clinical Picture of the Pneumonias is so familiar to all that I need not discuss it here. There are, however, certain features of it which, I believe, will bear reiteration, though I doubt not I shall be giving you only information which you are already possessed of. I wish to draw your attention first to the Onset of Lobar Pneumonia, which often presents (such at least has been my experience) knotty problems to the diagnostician. As all

of you know, the onset of lobar pneumonia is usually extremely abrupt—like a bolt from the blue does the malady come upon the patient, hardly a warning does he have before he is stricken down: he feels chilly all on a sudden, or may have an actual rigor, and his temperature shoots right up to 103° or 104° F. in the course of about half an hour; he may complain of a splitting headache and sometimes of pain all over the body, and he may even have a fit of sickness; in a short while, say a few hours, a dry, hacking cough troubles him, and he experiences intense pain in the chest; his face becomes flushed, his eyes are bright, and the expression one of great anxiety; the skin is dry and pungent to the feel, the breath is quickened, and he may grunt as he expires; prostration is marked, and he evinces no desire to sit up or move in the bed which he assumed with the first symptom of illness. Such an onset, while characteristic of lobar pneumonia, is not invariable. In some instances, the patient will tell you that for days previous to the accession of fever he has been feeling out-of-sorts, with no inclination to work or to eat, all the while conscious that he is shortly to be ill in bed; malaise, sore throat, headache, biliousness and nausea may have been present during this period of "waiting" to take to bed. The temperature rises but gradually, and there may be little or no pain in the chest. Cough is troublesome, and prostration extreme. This insidious mode of onset is not infrequent, and in some instances causes confusion in diagnosis, which, however, becomes obvious in a couple of days when the physical signs admit of no mistake; but in the meantime typhoid fever would have been thought of, and in spite of the unequivocal physical signs this possibility is not lost sight of till the morbid process begins to clear up: for, does not typhoid

fever occasionally commence with signs suggestive of a pneumonia? Another mode of onset is quite sudden, but with marked abdominal symptoms. The patient has a shivering fit, his temperature rises, the breath is quickened, the pulse becomes rapid and full; he complains of excruciating pain in the abdomen, which may be general or localized—the localization being either in the region of the appendix or the gall-bladder. Rigidity of the abdominal muscles, which may even be localized to the appendicular or gall-bladder region, and a varying degree of tenderness, together with the constipation, not uncommon at the outset of pneumonia, call for a diagnosis of “acute abdomen”, of appendicular or gall-bladder origin. I have seen at least two cases of lobar pneumonia which at the onset so closely simulated appendicitis that operation was decided on: in one of these the abdominal symptoms cleared up within a few hours; in the other they persisted, but localizing signs in the chest prevented the performance of a laparotomy. You would have read in the medical literature of the past of cases of lobar pneumonia in which operation for acute abdomen was actually done. In children, more than in adults, abdominal pain and certain other more or less definite symptoms of acute abdomen usher in an attack of lobar pneumonia, and such children may often be without pulmonary symptoms or signs for days. It should be borne in mind that lobar pneumonia at its onset “may copy any acute condition below the diaphragm; but mistakes are most frequently made between pneumonia and appendicitis in children, and between pneumonia and perforated gastric (or duodenal) ulcer or appendicitis in adults” (Pye-Smith). I would draw your attention to yet another mode of onset, of which I had several examples recently. At the outset of the illness there is sharp, stabbing, or stitch-like pain in the side

(the side affected) of the chest (in my series, the left side was affected in all except one), shivering, sudden and rapid rise of temperature, and headache. Within a few hours an hiccup develops. Examination reveals a pleuritic rub on the affected side, no other sign being present except perhaps an increase in the vocal fremitus and the vocal resonance on that side. A diagnosis of acute fibrinous pleurisy is made, justifiably no doubt, and active treatment for this condition instituted. Twenty-four hours or so later, the picture changes, the physical signs and symptoms of typical lobar pneumonia are noted, and, though the hiccup and pain in the chest still persist, the diagnosis becomes obvious. I have seen a few cases of pneumonia in which delirium, rigidity of the muscles of the neck, severe headache, and vomiting were features of the onset. Such cases are usually diagnosed as meningitis at first, for, even Kernig’s sign is occasionally present, but the absence of changes in the cerebro-spinal fluid and the development of respiratory signs and symptoms help to place them in their correct category. This meningeal type of onset is not infrequently seen in children, in whom convulsions often take the place of the initial rigor. I have discussed at such length the onset of lobar pneumonia for the obvious reason that it is at its onset this disease presents difficulties in diagnosis.

The next feature to which I wish to draw your attention is the anoxæmia which is invariably associated with pneumonia. Anoxæmia manifests itself by cyanosis, which, as Boyd says, is “to anoxæmia what a yellowness of the skin is to icterus.” A serious degree of anoxæmia is observed in from 10 to 20 per cent of cases, and when it is present, it often proves to be, as Lundsgaard puts it, “the leak that sinks the ship”. It is scarcely necessary for me to mention this, for you are only

too well aware that the obviously cyanosed pneumonic seldom pulls through. But, what causes this anoxæmia? According to Meakins, it is due to the rapid shallow respiration which is insufficient for the full oxygenation of the blood; Boyd is of opinion, however, that the shallow rapid breathing is the result and not the cause of the anoxæmia. Another view is that it is caused by "the presence of a layer of fluid on the inside of the alveoli" (Boyd), which prevents the diffusion of gases and full oxygenation of the blood. To sum up, we know that anoxæmia occurs in pneumonia, it may often determine the fate of the patient, but its mechanism we are not aware of.

"Pneumonia is not a local, but a universal disease", so says Dr. Gee; and the "patient with lobar pneumonia is suffering from a grave degree of poisoning," so writes William Boyd. Pneumonia (Lobar) is a bacteriæmia, and toxæmia invariably enters into its clinical picture. The intensity of this toxæmia determines the outcome of the disease, the more intense it is the less the chances for recovery. When the toxæmia is profound, muttering delirium, subsultus tendinum, clutching at the bed-clothes, a pinched haggard expression, drowsiness, and circulatory failure are in evidence, and, furthermore, "chloride retention with low blood chlorides, high blood non-protein nitrogen, and frequent alkalosis" can be made out. The great prostration which occurs in pneumonia is due to the toxæmia, and this is characteristic not only of lobar pneumonia but also of bronchopneumonia.

The typical termination of lobar pneumonia, is by crisis, and that of bronchopneumonia is by lysis. While I have not seen variations from the typical in broncho-pneumonia, in lobar pneumonia I have often seen lysis taking the place of crisis. The crisis

in lobar pneumonia is "one of the most mysterious phenomena in nature" (Riesman). It is often an event of dramatic suddenness: "The sickle of death may come very near, but chemical and immunological forces are at work which may quickly change the entire picture. The temperature may drop as much as 7° or 8°F. in the course of an hour, the dyspnoea disappears, the respirations return to normal" (Boyd). I shall not attempt to discuss the why and the wherefore of this phenomenon, for its mechanism is quite unknown.

Sir Thomas Horder says: "The term "bronchopneumonia" is often used incorrectly to describe cases of pneumonia of lobar type in which the areas of consolidation are small and multiple. The term should not be used without due regard to pathogenesis and to the course of the disease process. *Bronchopneumonia may exist with a single area of consolidation, and lobar pneumonia may exist with several.*" I am of the same opinion too. In such cases, the diagnosis may be settled sometimes by the termination which generally is by crisis.

I have read an aphorism of Dr. Gee, which I present here for your consideration. It runs thus: "Pneumonia is sometimes a cause of sudden and unexpected death in people going about their business, as if there were nothing the matter with them." I have never seen such a happening and shall be glad to know of any occurring in practice. That cases of pneumonia may exist without pulmonary sings for days together I know: I have seen such cases autopsied too. Believe me, latent cases of this disease are not at all rare: but, is not latency a confession of our inability to detect the morbid process?

Delayed resolution is by no means uncommon in the pneumonias. I have

seen recently a few instance of this, both in adults and in children. It occurs more frequently in debilitated subjects and in alcoholics; and septic complications within the chest may also cause it. In syphilitics, too, resolution does not occur rapidly.

I have left the subject of the Treatment of the Pneumonias to the last, not because it is the least part of this discussion, but because I wished to point out first some at least of the conditions which by our therapy we are to combat. I shall not, however, attempt a full discussion of this subject—because it is too big—but content myself by reminding you of some essentials and certain practices.

In the treatment of the Pneumonias, whether of the Lobar or of the Lobular variety, the first indication is to secure rest for the patient. Absolute rest in bed should be enjoined in every instance. The physician should see that his patient gets not physical rest only, but also mental rest. The patient suffering from lobar pneumonia will usually keep to his bed, so prostrate he often is; but the broncho-pneumonic may try to sit up, and sometimes even get out of bed. I believe that many cases of pneumonia in children die because mothers will not let the children have the rest that we enjoin. It is a golden rule to remember that the less the patient is handled, the better it is for him. When once the diagnosis of pneumonia has been made, no further examination requiring moving the patient about should be attempted unless special circumstances call for it. I am content to leave my pneumonia patients alone (as regards physical examination) if the course of the disease, as far as I can see it, is set fair; and I have never yet had to regret it.

The patient should be in a well-ventilated room. It is stated: "The cry of the pneumonic is for air." Hot,

ill-ventilated rooms are death-traps" (Lindsay); and Sir Thomas Horder would have it thus: "Treat patients suffering from pulmonary tuberculosis with abundance of fresh air whenever practicable; treat patients suffering from pneumonia with abundance of fresh air whether practicable or not."

As regards the diet, I believe in liquid nourishment, such as milk,^o mutton or chicken broth, fruit juices. Two pints of milk a day will be ample in the majority of cases. The milk may be given either diluted with barley water or plain. A half pint of broth and the juice of two or three oranges provide sufficient nutriment with the milk. I always give my patients two or three ounces of glucose, as glucose water, usually with brandy, two or three ounces, per diem. Children may have to be fed in some instances on whey and albumin water.

Pneumonia patients should be given plenty of fluids by mouth. Plain water, lemonade, or imperial drink may be used according to the desire of the patient.

The patient should be lightly clad. It is advisable, whenever possible, to put him in sheets. A pneumonia jacket, made of thin flannel, may add to his comfort. But never allow heavy clothes.

A well-trained nurse is part of the equipment for the successful treatment of pneumonia in general practice. I wish that every physician who treats cases of pneumonia outside a hospital insists on a competent nurse to attend on his patient. Only thus could he ensure proper care, without which his efforts would only come to nought.

As soon as the patient is seen, an aperient may be prescribed if the bowels have not been thoroughly cleansed out before. In the early case, a big dose of calomel (gr. v. for an adult) may be given at the outset,

and this followed by a suitable aperient, preferably saline. Later in the course of the disease, an enemata is to be recommended as it will be less exhausting. But free elimination by the bowels should always be secured.

Oral hygiene is very important, and requires special attention. A weak antiseptic mouth wash, such as glycothymolene or sanitas, will keep the mouth sweet and clean. The lips and gums may be painted with the Glycerinum Boracis of the British Pharmacopœia. The teeth should also receive attention, no food particles being allowed to remain between them. It were best to have the oral cavity cleansed after each feed.

The pyrexia does not necessitate special treatment unless it goes beyond 103°F., when the ice-cap may be applied. My rule in the treatment of pyrexia is to apply the ice-cap if the temperature is above 102.4°F., to *cold-sponge the patient if the temperature is above 104°F.*, and to put the patient in the ice-pack if it is above 105°F. This rule holds good for pneumonia cases also. Osler taught that cold sponging, done every three hours, with the least possible disturbance of the patient, was the best measure for combating toxæmia and controlling the temperature. The current edition of his text-book contains this teaching. But there are others who would permit no sponging except in exceptional cases. I believe that in bronchopneumonia cold sponging will scarcely be necessary, but it is essential in lobar pneumonia when the temperature is above 104°F.

I have done with the general measures. Of specific treatment, I have but little to speak. In lobar pneumonia, caused by the "fixed" types of pneumococci, monovalent sera have been employed with indifferent results. The antiserum available for Type I infections is of

considerable value, as it has enabled to reduce the case-mortality from 25 per cent to 12 per cent. Type II and Type III antisera are useless. Promising results are reported in Type I and Type II cases with Felton's serum, which is a concentrated, polyvalent, anti-pneumococcal serum. The cost of the product, which is £3 per dose, prohibits its employment except in very rich patients. It should not be forgotten that if serum therapy is to be employed, accurate and speedy typing of the causative organism is an absolute essential.

Vaccine therapy may be useful in cases of bronchopneumonia. I have employed it with success in a few cases. The compound catarrhal vaccine supplied by the King Institute of Preventive Medicine at Guindy was the product I employed. Dosage is determined by circumstances.

I wish now to deal with the *drug therapy* of the Pneumonias. I do not know of any drug which will cut short an attack of lobar pneumonia. Optochin, a quinine derivative, has been recommended as of specific value in pneumococcal pneumonia, but Strumpell and Seyfarth found it useless. Many German physicians recommend this drug in 4 gr. doses, four times a day, with milk, in early cases. I have employed as a routine measure a mixture containing *iodide of potassium, gr. 10, creosote, min. 3, rectified spirits, min. 30, and liquid extract of liquorice, min. 30, made up to an ounce with camphor water*, every four or six hours, in all my adult cases of pneumonia during the last three years with gratifying results. The occasional gastric disturbance which this mixture causes on account of its content of creosote is a disadvantage. I can strongly recommend this mixture to you, for, it has stood me in very good stead indeed. Some physicians advocate quinine hydrochloride,

gr. 5 or 8, three times a day; and others do not give in pneumonia anything other than a plain diaphoretic mixture.

In bronchopneumonia quinine is undoubtedly of value, especially in small doses. I have time and again obtained brilliant results in this disease with this drug, especially in children.

Pain is often a distressing symptom, both in lobar pneumonia and in bronchopneumonia. Warm poultices are the best for the relief of this, and I specially recommend linseed poultices, every four hours. Antiphlogistine may appear more elegant, but is unnecessary and certainly more costly. When the pain is very severe, a belladonna plaster may give relief; but it often fails. In some cases, the advisability of giving *morphine* will have to be considered. I resort to morphine only after an effort has been made to relieve the pain by the hypodermic administration of hyoscine hydrobromide, gr. 1/200. Hyoscine is, however, useful more as a hypnotic and sedative than as an analgesic. For insomnia, I advise the administration of aspirin, gr. 5, with Dover's powder, gr. 5. But the nurse should be told, when this is prescribed, to be on the look out and change the sheets if necessary; for, the patient sweats freely when this combination is given. But it usually secures him sound sleep. In some cases I have used hyoscine with good effect. Delirium is best treated with hyoscine and cold sponging.

I drew your attention to the anoxæmia which occurs in pneumonia. It is the duty of every physician to combat this anoxæmia, and for this purpose he should employ oxygen. Oxygen therapy has fallen into disrepute recently, but it may be a life-saver when anoxæmia threatens, provided it is given early. In full-blooded patients venesection may

prove beneficial; but I have no experience of this procedure.

One of the commonest causes of death in pneumonia is circulatory failure. To prevent its occurrence, some physicians, from the very outset, add a few minims of the tincture of digitalis (min. 5 or 10) to the mixture they give their patients. I believe that this is sound procedure. I give my pneumonia patients from the early days glucose and brandy, and only when circulatory failure threatens, as evidenced by the pulse becoming soft and rapid, or the first sound at the mitral area becoming slightly prolonged, do I resort to digitalis. I usually advise the administration of digitalin, gr. 1/200, with strychnine n itrate, gr. 1/60, every six hours, hypodermically; and, I believe, a few lives at least have been saved by this procedure.

K. Srinivasa Rao —

Among the almost limitless complications of pneumonias the following are probably the more frequently met with:—

1. Acute Fibrinous pleurisy developing in more than half the cases.
2. Serous effusion rich in fibrin and pneumococcus also occurs in most cases but only in some few cases, large enough to be detected clinically *i.e.*, about 12 ounces of fluid or more.
3. Empyema particularly common in children. Much of the subsequent functioning of the lung will depend on an early diagnosis of this complication. A persisting temperature, rapid pulse rate and respiration, chills and sweats and an unproductive paroxysmal cough. These are the features which should enable us to form a diagnosis. Physical signs are those of effusion. In case of any doubt, recourse should be had to the exploring needle at once. Encapsulated interlobar empyema is difficult of diagnosis and when suspect-

ed from the general condition, pallor etc., skiagrams should be taken.

4. Delayed resolution occurs in about 4 per cent of the cases where Crisis occurs. The subjective symptoms subside but the lung condition does not alter. Sometimes there may be evening temperature often giving rise to doubts of the existence of T. P. It is useful to remember that signs of consolidation may persist as long as 3 or 4 months and yet the lung may clear.

5. Sometimes, instead of resolving, the exudate undergoes organisation and fibrosis of that part of the lung occurs.

6. "Chronic non-tuberculous basal infection of the lung" is a rare sequel of bronchopneumonia. Broncho-pneumonia which has a great tendency to relapse often leaves behind a localised bronchitis at the base, which again gives rise to repeated attacks of fever, cough and expectoration.

7. Rarely, repeated attacks of bronchopneumonia leave behind a picture of Emphysema and right heart enlargement.

8. Abscess is a complication of lobar pneumonia. It may be single and large or more often multiple and small consisting of necrotic tissue—a sort of purulent infiltration. The condition is recognised by expectoration of large quantities of foul, purulent sputum containing elastic tissue. When a large quantity of sputum is expectorated, there may be signs of a cavity.

9. Gangrene is common in the aged and the diabetics. Here the constitutional disturbances are more marked than in abscess and the sputum exceedingly foetid.

10. Enlarged bronchial glands keeping up the temperature for a week or more after crisis.

11. Pericarditis—often not diagnosed. Commonly of the fibrinous variety, occasionally there may be serous or purulent effusion. If pulse rate increases unaccountably and dyspnoea is marked, listen over the sternum along its margin and over the praecordium.

12. Ulcerative endocarditis often diagnosed only at autopsy.

13. Pneumococcal sepsis giving rise to the familiar symptoms of vasomotor collapse.

14. Meningismus and meningitis in infants and children.

15. Delirium, coma, and stupor are manifestations of a severe toxæmia.

16. Acute mania at or about the time of the crisis.

17. Otitis media in children.

18. Vomiting either due to toxæmia or as a symptom of meningitis or gastric inflammation.

19. Acute dilatation of stomach.

20. Tympanitis.

21. Hiccough.

22. Peritonitis.

23. Jaundice, due to hæmolytic action of *Pneumococcus* on R. B. C. Here the mortality is very high.

Treatment.—With regard to *prophylaxis* we have to remember that though auto-inoculation with pathogenic pneumococci in the mouth may sometimes occur, still the chief sources for the spread of the disease are patients with pneumonia, convalescent and healthy carriers and dust from the immediate surroundings of patients ill with pneumonia.

Mixed vaccines prepared from Types I, II and III are reported to be successful.

Treatment of Patients.—Being a severe disease, it is necessary to husband the patient's energy in every way. Also it is useful to remember that auto-inoculation takes place on any movement. Therefore the examination by doctor should be as little disturbing as possible. No need to make the patient sit up for examination at every visit. Once a diagnosis has been made, it is needless to examine the back unless fluid is suspected. The chest should be examined as far back as the posterior axillary line without moving the patient and as long as breath sounds and crepitations are heard, there need be no fear of any serious collection of fluid. The Traube's space also could be percussed without disturbing the patient.

Regarding diet, it should be liberal consistent with patient's digestion. Fluids should be given in large quantities. In pneumonia it is advised to give an abundance of sodium chloride about 2 drachms in 24 hours. The patient feels thirsty and calls for water. This restores fluid to the body. So also calcium glycerophosphate 3i daily is advised, to meet the deficiency of calcium which occurs in pneumonia. With regard to care of bowels a word of caution is necessary. At the outset it is no doubt advisable to clear the bowels, but later on, especially in infants and children, any strong purgative is contra-indicated. Infants do very badly when their pneumonia is accompanied by gastro-intestinal disturbances either diarrhoea or vomiting. In the same way, any purging during the disease acts unfavourably either because the purgation exhausts them and further auto-inoculation takes place or probably more absorption of toxins takes place from the bowels as a result of your converting its contents to a liquid state. A gentle laxative or a glycerine enema is all that is needed during the

course of the disease to open the bowels.

Absolute rest, suitable nourishment, careful nursing, abundance of fresh air and support to the heart when required. These are the essentials of treatment. In mild cases, drugs are not needed. Drugs become necessary for the treatment of distressing symptoms:—

Hyperpyrexia—Cold sponging is best. Where not feasible, aspirin in small doses—taking care not to produce acidosis.

Thoracic pain.—If severe, morphine or Dover's powder. Application of hot water bag or Bran Fomentations. Applications of antiphlogistine are not necessary because they are messy, and encourage carelessness on the part of the doctor. If he happens to be a busy man and is impatient to wait till the chest is cleared, complications will be easily overlooked.

Cough.—If excessive and harassing codeine linctus.

Persistent Hiccough.—Morphine is necessary to bring about rest, musk and Benzyl Benzoate may be tried.

Meteorism can be relieved by Turpentine stupes. Puitritin is effective and can be given without any of the risks attending its use in the meteorism of typhoid fever.

Toxaemia and Insomnia.—Hydrotherapy external and internal. Also aerotherapy. Eliminants and stimulants; intravenous injections of saline or glucose useful. In those addicted to it, give plenty of alcohol. In others also alcohol is useful. It is stimulant, supplies food energy, and procures rest and sleep. Its hypnotic and psychological effects are valuable.

At the crisis.—Protection, and support, stimulants like Pituitrin, Caffeine, and Atropine. twice daily for 4 or 5 days. His reports are very favourable.

Convalescence should be observed. Rest, plenty of fresh air, a full diet and graduated exercise. There should be no undue hurry for the "oil bath".

Treatment of complication.—Though at one time it was widely believed that death in Pneumonia was due to heart failure or vasomotor collapse, the consensus of opinion at present is that death is due to General Pneumococcal Septicæmia. A patient with V. D. H. or myocarditis may die in pneumonia from primary heart failure. Otherwise any evidences of insufficient circulation are bound up with those of generalised terminal collapse. Not only the heart or the vasomotor centre but the *entire organism* fails and we see the familiar picture featured by collapse, coma cyanosis, respiratory distress, œdemia of lungs, tympanitis, and rapid feeble pulse. This state of affairs is associated with a terminal septicæmia and indicates *an entire collapse of the reactive processes in the body*. When once developed, treatment in these cases is often futile. This event should therefore be anticipated and we should try to protect our patients by measures that lessen the toxæmia. These are rest, sleep, the lessening of pain etc. Some Doctors give cardiac stimulants like digitalis from the very beginning of treatment.

In acute dilatation of the right heart venesection is useful. Atropine should be given in pulmonary oedema.

In the treatment of Pleural Effusion, besides the expectant treatment and paracentesis a third method suggested by Danzer is worthy of consideration. He gives Thyroid gr. 1 three times a day and if absorption does not occur in 3 or 4 days he gives intravenous injections of Hypertonic saline (15%) 20 c.c.

In Pneumococcal meningitis mortality is high as much as 95%. Treatment suggested is daily lumbar puncture and intraspinal injections of anti-pneumococcus serum + optochin intravenously, 30 c.c. of 1 in 1000 solution.

For delayed resolution, exposure to X-rays does immense good, also Thyroid should be given.

Chemotherapy.—A large number of drugs are used but the following are worthy of trial.

(1) Mercurochrome 220 soluble. Freeman and Hoppe report intravenous injections to be of great value in children. The disease is shortened and sometimes abruptly stopped. In most cases, one injection has sufficed. .005 gm. per kilogram of body weight is given in 1% solution. Reaction is mild. A few hours after injection, temperature rises by 1 or 2°, urine of course becomes coloured. In a child 5½ years old, severe foul diarrhoea had developed in 4th week and on 38th day was desperately ill with 5 areas of lung consolidation, ears discharging profusely, many skin abscesses, and cyanosis. After injection of mercurochrome, the temperature fell as by crisis and a rapid and uninterrupted recovery followed.

Quinine Hydrobromide is believed by some to be an agent of passive immunisation since it is said to destroy Pneumococci and neutralise the Pneumococcal toxins.

F.M. Gardner Medwin extols the use of Soda Nucleinate 1½ grs. in 2 c.c. given hypodermically. In every case of lobar pneumonia treated a crisis occurred 48 hours or so after 1st dose regardless of the day of administration. Of 53 cases all responded except 8. 3 patient relapsed sustaining a fresh invasion of lung area but in each case

temperature again fell by lysis within 48 hours of 2nd injection. The action of this drug was greatly facilitated by intense alkalisation of the system with large doses of Soda Bicarb.

Camphor in oil is reputed to have specific action by many. Pneumococci in circulation are killed, Reabsorption of Pneumonia Exudate is promoted and the heart stimulated.

Collosal Iodine (doses ranging from 10 c.c. up to 40 c.c. of 2%) is also a favourite remedy.

Lastly, attempts are being made to treat pneumonia by artificial pneumothorax but beyond relieving pleuritic pain, which the method certainly does, it is very doubtful if the good effects reported are at all due to the induced pneumothorax.

T. Satakopan.—

Pneumonia as a disease is a subject of great interest to all who have anything to do with human illnesses. The practitioner dreads it lest any of his patients should succumb to the disease while he is highly delighted when a patient survives the disease under his care. It has ever been a bugbear to the indifferent student while the teacher generally gets eloquent when describing the different stages with the varying morbid changes and the marvellous phenomenon of crisis. A patient with pneumonia is greatly welcome to the teacher in the wards. It is one of the acute illnesses on which he could base clinical teaching on almost all aspects, especially when he could take the students day after day over the progress of the case and demonstrate the great truth in medicine about the virtue of *watchful inactivity*. And at the present day the bacteriologist is keenly interested in the study of the causative organisms. All this interest arises from the grim fact that of all acute diseases the pneumonias levy the greatest toll on life. To deal comprehensively within

a short while, of a disease of such frequent incidence and of such grave results is out of question. There is hardly a medical man who has not had some practical acquaintance with this disease. I shall therefore confine myself to a few observations which have struck me during the last few years.

Clinical diagnosis.—While there is a tendency in certain quarters to diagnose pneumonia too readily on flimsy grounds, others would not diagnose a case as such unless all the classical physical signs be present. Such extreme attitudes are very regrettable. For, while the latter place patients in great hazard by often overlooking serious cases of pneumonia, the former inflict unnecessary restraint and expense on a large number of patients who often suffer from nothing more than a little bronchitis with a little fever. It is not my purpose, and there is no need here, to dwell on the symptoms and physical signs of the pneumonias. They are well described in text books and all medical men know them thoroughly. I wish to remind them of the number of cases of lobar pneumonia which they have come across where the physical signs were late in developing or where the physical signs were never definite. It is not unusual to see cases where only a few of the classical signs are present. For instance, there may be definite dullness of one of the bases without any high pitched tubular breathing, or there may be impaired resonance with diminished or absent breath sounds suggestive of pleurisy with effusion. Everyone has read of what is known as central pneumonia, where in definite cases of pneumonia, no demonstrable physical signs are found during the entire course of the illness. If such wide variations are possible in the physical signs how then is lobar pneumonia to be diagnosed? A thorough, careful and systematic examination of the

chest for physical signs is essential when the patient is first seen and for the next few days. The caution that a patient suffering from lobar pneumonia should not be disturbed for examination of the chest is often interpreted as a scriptural "Thou shalt not". Once a definite diagnosis has been made, there may not generally be any need nor advantage in turning over the patient to examine his chest. But when the diagnosis is obscure or is in doubt, one cannot certainly avoid this little change of posture of the patient. If in the course of the illness, the patient's heart fails, it wants some imagination to assert that this gentle manœuvre could have contributed to the failure. If this procedure of repeated examinations be followed, the failure to recognize the condition would be very much lessened. There would still be a number of cases which does not show enough physical signs to warrant a diagnosis of pneumonia. While the physical signs are apparently so deceptive, patients with lobar pneumonia present an almost constant picture of symptoms. There is the sudden onset with or without a chill, a shoot-up of the temperature. The hot dry skin, the alae nasi working vigorously, the great majority of the patients complaining of pain in the side of the chest, with an expiratory grunt—all or most of these symptoms are generally present. But they are always associated with a marked alteration of the ratio between pulse and respiration. I consider that this altered pulse respiration ratio is the only constant sign of lobar pneumonia, so much so, that in its absence I am very unwilling to diagnose pneumonia unless other evidence be overwhelming.

The symptoms that have been mentioned are available only in cases of lobar pneumonia resulting from pneumococcus infection. But when due to other infections, such as streptococcal, influenzal or rheumatic, whatever the

organism, or when pneumonia complicates other diseases like typhoid fever, these symptoms are not constant. In such cases we have to depend almost entirely on physical signs.

The other large group of pneumonias, namely bronchopneumonia is easy to diagnose if rather more difficult to handle. The physical signs are not strikingly different from that of severe bronchitis. When a patient manifests physical signs of bronchitis, but with general symptoms rather severe for bronchitis, we are dealing with a case of bronchopneumonia. To look for the text book patchy dulness is fruitless.

The physical signs in the chest are fugitive and shifting and indicate varying morbid changes in different portions of a lung at the same time. In this respect the physical signs of lobar pneumonia differ from those of bronchopneumonia as the eruption of small-pox from that of chicken-pox. The eruption of small pox is uniform and of the same type at any period ; if the eruption is papular, it is so all over the body ; when vesicular or pustular, it is vesicular or pustular all over. Similarly in lobar pneumonia, the physical signs indicate the same morbid process uniformly all over the affected lobes. It is either in a stage of congestion or consolidation or resolution all over at a time. *Per contra* in chicken-pox the eruption may be of more than one type at the same time. It is quite common to find papules, vesicles and pustules indiscriminately scattered over a patient all at the same time. Similarly in bronchopneumonia, one often finds a patch of consolidation, another patch of congestion, an area indicating bronchitis, all in the same lung or part of a lung at a time.

Variation in the severity of lobar pneumonia. I have treated a fair number of cases of this disease. The mortality was rather negligible. I therefore used to think, and unfortunately also teach my students, that the

dangers of pneumonia were greatly exaggerated. But in the early part of 1931, I have had a run of deaths in my cases of pneumonia. Of 38 cases, I lost 16. After this unfortunate series, the mortality rate in my cases has been low again. I find that at least one other physician of Madras has noticed a similar sudden rise in the mortality rates during a short period last year. Possibly the infection during these particular periods were with one of the more fatal strains of pneumococci as Type III. A feature of these more severe cases was the occurrence of mental symptoms. Over a dozen cases developed symptoms of *acute confusional insanity*. In some patients these symptoms came on well before the onset of the crisis, while in others they set in immediately after the temperature touched normal. The development of severe mental symptoms did not affect the prognosis except in two cases. It would be interesting to know if only particular strains of pneumococci produce these severe mental symptoms or if the mental upset was merely the result of the much greater exhaustion of the patient.

Pneumonia in Children.—Contrary to the common belief, lobar pneumonia does occur in children though not so frequently as in adults I have seen about a dozen cases within the last seven years. The youngest patient was nine months old. In this case the whole of the left base was typically involved. The child made an uneventful recovery. About six months later, the child had another attack of pneumonia, this time of the lobular type to which she succumbed. Distressing meteorism and very hurried breathing with slight anoxaemia are rather prominent features in children. Pituitary extract and oxygen inhalation are very effective against these troublesome symptoms. It is rather curious that these agents should be so unreliable in similar conditions in adults.

Treatment.—Pneumonia is cited as one of the best examples of a self-limited disease and we have been exhorted by the older teachers not to fuss about and drug the patient. Taking into consideration the high toxæmic condition of the patients Osler wrote that all that the patient required in the way of treatment was to leave him under the care of a competent nurse with plenty of water, placed conveniently by his side that the patient might quench his thirst without any hindrance. Many physicians both before and after Osler have recommended a number of drugs credited with curing the illness or shortening its period. Unfortunately no drug has yet been found really useful. Felton's serum which is now being tried is believed to be useful in a small number of cases belonging to Type I. From the point of view of symptomatic treatment the practitioner is often undecided as to whether he should give digitalis from the commencement, whether alcohol is essential, whether camphor or musk should be used in failing circulation and whether and when oxygen and pituitism should be used. Authorities are divided on almost all these questions. Personally I do not use digitalis or alcohol as a routine. The results are at least no worse than when these agents are used systematically from the commencement. If any drug could help the heart, strychnine by encouraging deeper breathing is likely to save the heart more than any other drug. In distension of the abdomen, as mentioned already, pituitary extract alone is not quite so effective in adults as in children. The routine turpentine stupes and enemas are quite satisfactory. Oxygen is generally admitted to be useful especially if preceded by a little carbon dioxide inhalation. For insomnia and mild delirium, brandy at bed time does more good than most other hypnotics.

UNION NOTES.

There was the usual summer lull in the activities of the Union during the last two months.

At the clinical meeting on the 13th of June, Dr. K. C. Paul initiated a discussion on the Pneumonias which was followed by two other speakers, Drs. T. Satakopan and K. Srinivasa Rao, the former dealt with the clinical symptoms and treatment whilst the latter took up the complications. This procedure of getting, with previous notice, more than one speaker to take part in the discussions on a subject, dealing with its different aspects, obviates a good deal of desultory talk which sometimes ensues at such meetings.

The Annual General Meeting of the Union will take place on Monday the 18th July at 6-15 p.m. The business of the evening will be the presentation of the Financial statements of the Union and the election of office-bearers for the coming year.

The Rules of the Union which were published in one of the previous numbers of last year will have to be ratified by the General Body. A copy of the rules is again circulated to the members. Members wishing to propose amendments to these rules are requested to hand the proposed amendments in writing to the Secretaries at least five clear days before the meeting.

Proposed amendment of the Articles and Bye-laws of the Union.

Submitted by the Rules sub-committee appointed by the General Body and as approved by the Governing Body 1929-30.

CONSTITUTION.

Article 1. Title.

The name and title of this organisation shall be "The South Indian Medical Union."

Article 2. Objects.

The objects of this Union shall be:—

(a) The promotion of the science and art of medicine in South India.

(b) The Union of the Medical profession of South India into one common organisation.

(c) The development and diffusion of scientific knowledge.

(d) The promotion of friendly intercourse between persons engaged in the pursuit of scientific knowledge.

(e) The elevation of the standard of medical education.

(f) The enlightenment of public opinion in regard to the prevention of disease.

(g) The publication of the results of scientific investigations.

(h) To concert such measures as to bring about mutual good will, better understanding, co-operation and a spirit of brotherhood amongst members of the medical profession.

Article 3. [Composition of the Union.

The Union shall consist of ordinary members, associate members, and honorary members.

Article 4. Membership.

(a) The ordinary and associate members of the Union shall be Medical Practitioners and Dentists licensed by their Home Governments. They shall hold a qualification registrable in the Madras Presidency.

(b) Honorary members shall be those who have done meritorious service in furthering the objects of the Union and Scientists working in the sphere connected with medicine and hygiene. They need not necessarily be Medical men and shall be elected unanimously by the Council of the Union.

(c) Ordinary members alone shall be competent to hold offices, attend or vote at any business meeting.

Article 5. Council.

The Union subject to the terms of this constitution shall be governed by the Council.

The Council shall consist of the President, two Vice-Presidents, two Secretaries [a General Secretary who shall be in-charge of the general work of the Union and the other, a Secretary in-charge of the Scientific Section], a Treasurer, and twelve Members elected at an annual meeting, of whom at least one half shall be members of the outgoing Council.

Article 6. The Officers.

The officers of the Union shall be the President or in his absence one of the Vice-Presidents and the General Secretary.

All correspondence in the name of the Union shall be conducted only by the General Secretary.

Article 7. Office.

There shall be an office of the Union under direction of the General Secretary, who shall take care of the archives and conduct the general business of the Union.

Article 8. Funds and Expenses.

Section 1. The expenses of the office of the Union shall be met from the subscriptions. These funds shall be collected by the Treasurer.

Section 2. Funds for meeting other expenses of the Union shall be raised either by voluntary gifts from individuals, medical and other organisations or by special grants authorised for the purpose by the Council from the general funds.

Section 3. Membership subscriptions shall be Rs. 10 and 3 per annum for ordinary and associate members respectively, payable yearly or in half yearly instalments of Rs. 5 and 1-8 respectively.

Section 4. Subscriptions are due before the fifteenth day of April and October. All subscriptions are payable in advance.

Article 9. Amendment.

Section 1. The Council may recommend any amendment of any article of this Union for consideration at any special meeting of the Union provided that three-fourths of the total members of the Council vote in favour of such a change or amendment.

Section 2. The Union may amend, repeal or alter any part of this constitution at any special or annual meeting provided that three-fourths of the members attending such meeting vote in favour of such amendment, repeal or alteration, and same is confirmed by a simple majority of the members present at a meeting to be summoned not earlier than 30 days after passing of the first resolution and that the amendment, repeal or alteration shall not take effect till and after the succeeding annual meeting.

Bye-Laws.

Chapter 1.

Section 1. Any person who is desirous of becoming a member of the Association shall present to the Council of the Union.

(a) A written application for membership on the prescribed form.

(b) Satisfactory evidence of the necessary qualification.

(c) And on his admission being approved by the Council, the payment of such dues as may for the time being be leviable;

Provided that a member once elected shall remain a member as long as he conforms to the rules of the Union and irrespective of his place of residence or of honourable withdrawal from the Union.

Honorary members shall be elected by the Council and shall be entitled to retain their membership for the period mentioned in the resolution electing them.

(d) Any ordinary or associate member of the Union shall be entitled to retain his membership so long as he pays his dues and otherwise conforms to the provisions of the constitution and the Bye-laws.

Section 2. Any member shall be suspended from the roll of members—

(a) for failing to pay his dues to the Union, provided that due notice shall previously be given to the member by the President.

(b) for conduct prejudicial to the interests of the Union, provided that due notice shall be previously given to the member by the Council.

Section 3. When a member is suspended or has forfeited his membership it shall be the duty of the General Secretary to make the necessary entries against the name of that member or to remove the name of such person from the roll of membership and to notify him of the action taken together with the reasons therefor.

Section 4. (a) Any member who has been suspended for non-payment of dues shall be restored only when all his dues have been paid.

(b) Any person who has forfeited his membership shall be re-instated at his request, if approved by the Council on such terms as the Council may decide.

(c) Members who are suspended or are in arrears for a period of 3 months or more are not entitled to attend or vote at any business meeting.

1. The Council shall meet at least once every month.

The quorum for any meeting of the Council shall be 5.

Chapter 2.

The President of the Union and the General Secretary shall be ex-officio members of any committee formed by the Association. The *Official* minutes of such committees shall be forwarded to the General Secretary by the *Conveners* of such meetings.

Chapter 3.

Nomination of officers shall be made by members and a majority of members present shall elect such officers. Nomination and election shall take place at the annual general meeting. Any post left unfilled at the annual general meeting or falling vacant later shall be filled by appointment of an officer by the Council of the Union at the next meeting of the Council.

Any member of the Council who is absent for 3 consecutive Council meeting shall "*ipso facto*" cease to be a member of the Council but is eligible for re-instatement.

Chapter 4 Meetings.

The General Secretary shall use all reasonable means to give due notice of the meetings to the members of the Association. Evidence of posting to the last address given by the members shall be considered as service.

2. *Annual General Meeting* shall be held in the month of April every year or soon after convenient, for the consideration of the annual report which shall include an audited statement of

accounts, to elect the officers for the ensuing year, and to transact any other business that is considered expedient.

Members desirous of bringing forward any proposition before the annual general meeting shall send the same in writing to the General Secretary to reach him not later than the 1st day of March preceding the annual general meeting. For annual general meetings a notice of at least 15 days shall ordinarily be given. Members requiring information at the annual general meetings shall give at least 7 days' notice in writing to the General Secretary, stating the nature of the information required.

3. *Extraordinary General Meetings.*—On requisition in writing of not less than 15 members, stating the purpose of the meeting, the President shall have a meeting of the Association convened with one month of the receipt of the requisition. If the President does not convene the meeting, the requisitionists themselves can convene the meeting. Quorum for such shall be 30. Notice of at least 15 days shall be given to the members.

4. *Ordinary General Meetings.*—The President may at any time convene a meeting of the Association for any general or special purpose. For ordinary general meetings a notice of three days shall be deemed sufficient.

5. The President shall preside at all business meetings of the Union. In his absence the members present shall elect one of the Vice-Presidents, or when no Vice-President is available, one from among themselves as Chairman of the meeting.

Chapter 5.

The minutes of all business meetings shall be recorded in a book kept for the purpose by the General Secretary and submitted to the Council at its next meeting.

2. The Council at their first meeting shall provide for the publication of the proceedings of the general meetings and one copy shall be presented to each member and such others that the Council may decide.

Chapter 6.

(a) The Treasurer shall be the custodian of such funds as are collected from membership fees or otherwise and shall render to the Council a report of all funds passing through his hands at each meeting of the Council. All moneys of the Union shall be deposited in the Bank Account of the Union. The General Secretary shall be permitted to keep an Imprest account of not more than Rs. 10. All payments of any sum of Rs. 5 or more shall be only by cheques. Cheques shall be signed jointly by the President and the Treasurer.

(b) The Treasurer shall bring to the notice of the General Secretary the names of all members who are in arrears on the 1st of July and 1st January respectively.

Chapter 7

(a) No address or paper before the Union excepting the inaugural or any special address shall occupy more than 30 minutes in delivery and no member shall speak longer than five minutes nor more than once on any subject except by unanimous consent.

(b) All papers read before the Union shall become its property and shall be deposited with the Secretary in-charge, Scientific Section.

Chapter 8

These Bye-laws may be amended by a majority vote of all the members present at any general meeting provided that at least 30 days' notice of the amendment has been given to the members and provided that the

amendment shall be in force only till the next annual general meeting.

Chapter 9

The deliberations of this Union shall be governed by standard rules of Parliamentary Procedure such as contained in Robert's RULE OF ORDER, when these are not to conflict with the constitution and bye-laws.

Chapter 10

An emblem shall be deposited at the Office of the Union and shall be used at all meetings of the Union. A Badge to be worn by all members at all *Official Functions* of the Union shall be designed and issued to each member on admission at a price fixed by the Council.

ASSOCIATION NOTES.

The All-India Medical Licentiates' Association, Madras Branch.

A clinical meeting of the above association was held on the 30th May 1932 at 6 p.m. when Lt.-Col. J. M. Skinner presided and Dr. A. Visvanathan, L.M.P., read a paper on "Some interesting case notes." The lecturer covered a wide field ranging from hanging to hysteria and hiccough. The lecture was followed by a discussion. The intravenous route of quinine medication was one of the main points discussed.

Mysore Medical Association.

Fourth Annual Conference

EXTRACTS FROM THE ADDRESS BY DR. S. SUBBA RAO.

The second question was briefly referred to by me in my address to you last year and I have been pondering over it since. It has been proposed that the course of studies for the L. M. P. may be raised from four to

five years. I am afraid this will, in no way, mitigate the sharp distinction that now obtains between the two existing classes of medical men, namely, the Graduates and the Licentiates. If we agree to increase the period of training for Licentiates to five years, and also improve the quality of their training then the only difference between them and the Graduates will be in the matter of their initial educational qualification. I venture to submit that it would be far more desirable to raise also the initial qualification from S. S. L. C. to Intermediate, and dub them all as M. B.'s instead of L. M. P.'s. In my opinion, this is the only way of abolishing the existing caste system amongst medical men. This would mean that all the Medical schools in India should be converted into Medical Colleges by thoroughly over-hauling, augmenting, and improving their equipment and teaching staff. It may be said that this is an impracticable scheme; but I should submit that the change may be made quite gradual, the entire transformation being spread over a number of years. It is quite possible for a Medical College to grow out of a Medical School; and the experiment has proved successful in our own State. We in Mysore may not find the scheme so very difficult after all. We have a College in Mysore and a School in Bangalore; and I think that two institutions are quite unnecessary for the State, at any rate, for the present. Now that the special Intermediate Examination leading to Medicine has been abolished, and the doors of the Medical College are thrown open to practically all Intermediates, it is possible to increase the number of admissions to the Medical College, and close down the Medical School. The advantage accruing from such a measure are many and they altogether outweigh disadvantages.

ABOLITION OF MEDICAL SCHOOL.

Firstly, the general public will have at their service a better-trained, better equipped and more efficient body of medical men. Secondly, this will ensure the formation of a body of more self-satisfied doctors. Every one like the soldier of Napoleon, will have "a Marshal's baton in his knapsack." Starting with the initial equipment of a University Degree every one who joins Government service can aspire for the highest posts, and every one who chooses to devote his life to private practice can aspire to become the leader of the profession in the place in which he chooses to settle down. Thirdly, for the higher and more responsible posts in the service, Government will have a larger field for the selection of their officers. Fourthly, the University can institute the higher Degrees of M. D. and M. S. for which there will be great keenness of competition on the part of the more ambitious graduates who like to seek preferment in service or achieve distinction as private practitioners. Fifthly, it may become more and more possible to institute the appointment of Honorary Physicians and Surgeons in our Hospitals as experienced and highly qualified men become more available, and thus rid the profession of officialdom. Some of you might accuse me of dreaming. Yes, gentlemen, I am dreaming. I am dreaming of the dim distant future when every citizen has his own family doctor, and admission to our Hospitals is restricted to the needy poor. These are the lines of possible evolution. It may look fantastic for the Head of a Department of Government to be aiming at the abolition of his own Department. I am addressing you not as the Senior Surgeon, but as the President of the Medical Association; and I can assure you I am speaking with all sincerity. This is not a matter which can be accomplished in a year or two. It will take many years for its accomplish-

ment; and the advancement of the profession along these lines can be achieved only with our progress in other directions—civic, social, political and economic. The sixth or last advantage is that we shall be solving the vexed question of castes in the profession, thus giving the lead to the rest of India in solving the problem.

The disadvantages of this scheme are very few. In the first place some of the Graduates will have to settle down in rural areas, and be satisfied with a much smaller income than those who settle in towns and cities. Then again, the Government may have to increase their budget grants to maintain a Medical Service composed entirely of Medical Graduates. But the increase in expenditure will be very gradual: for it will take over 30 years to replace all the Licentiates by Graduates. There may, however, be a tendency to cheapen the market value of a Graduate, which like everything else, has to obey the economic laws of supply and demand.

There is one other matter that I should like to draw your attention to before I close. The manufacture of ready-made solutions of drugs for injection in ampules, the preparation of vaccines and biological products, and the manufacture of some of the more commonly used drugs are not very difficult processes, and do not require a very large capital to make a start. During my recent visit to Calcutta, I was very much impressed by the endeavours made in this direction by small bands of medical men and chemists to replace the imported articles by those of local manufacture. No such concerns have come into existence in South India. Here is a vast field for some of our younger friends to make themselves useful by starting small Clinical and Bacteriological laboratories. I can assure you that it will be a profitable concern in the end though difficulties may be met with in the beginning.