

244

The
Medical Practitioner
Vol-13 No.1.2.
Oct, Nov. 1941



JL
Lm 2, N30
N41.13.1-2
159643

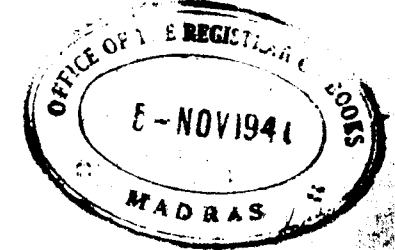
261

The Medical Practitioner

A Monthly Medical Journal

EDITED BY

Dr. V. Rama Kamath,
Member, Madras Medical Council.
SCIENTIFIC SECTION.
BOARD OF ASSOCIATES



Dr. S. S. Rau, M.D.,
Editor, Bombay.

Dr. K. Narayana Murthi, M.D.,
(Medicine)

Dr. B. M. Sundaravadanam, B.A., M.B., F.R.C.S. (Eng.)
(Surgery)

Dr. M. Subramania Aiyar, B.A., M.B.C.M.,
(Midwifery & Gynaecology)

Dr. G. Joseph Gnanadickam, L.M.P.
(Ophthalmic Surgery)

Dr. T. S. Shetty, M.D.,
(Ear, Nose & Throat Surgery)

MENESTRIN CAPSULES

Doctors advise ladies dreading pregnancy to take Menestrin Capsules a week before the expected Menstrual Cycle, the time when the fertilised Ovum settles in the Uterus.

Over 5,000 doctors have tried Menestrin Capsules for the treatment of Amenorrhoea and as a Contraceptive and found them successful. It was only after getting this opinion that the Menestrin Capsules were offered for sale.

Available at all Chemists in Madras:

MANUFACTURED AT THE ORIENTAL RESEARCH LABORATORY,
Vepery, MADRAS.

Bombay Stockists: Messrs. P. M. ZAYERI & CO., Princess Street, BOMBAY.

CONTENTS.

Original Articles:

Treatment of Pneumonias By Dr. V. Rama Kamath	...	...	...	3
Eczema By Dr. K. V. Krishna, M.B., B.S. (Hong-Kong)	...	...	...	14

Abstracts:

Physiological Principles in the Treatment of Traumatic Shock By R. J. S. McDowell, M.D., D.Sc.	...	...	...	25
---	-----	-----	-----	----

Editorial:

OURSELVES	...	...	...	30
LACK OF IMAGINATION IN WAR EFFORTS	...	...	...	33
IS IT A PRINCIPLE OR AN OPPORTUNITY?	...	...	...	35

OBITUARY: Capt. E. S. Gopalan, M.B., M.S., A.I.R.O. ... 37

Correspondence, Reports Etc:

Indian Medical Association, Guntur District Branch	...	...	...	38
Provincial Subsidized Rural Medical Practitioners' Association: Announcement	...	...	...	38

'BALARAKSHAKA'. Prevents Infantile Liver enlargement if given from 3rd month of Infancy.

Composition. Nux-Vomica, Mercury, Sodium sulphate, Absorbable Calcium.

Other Indications. General run down health of infants, associated with indigestion, vomiting, flatulence, Colic, distended abdomen, diarrhoea, wasting of limbs, rickets, Catarrhal jaundice. Can be given in place of various gripe waters with better results.

1 packet for 1 month Course Re. 1/-

'PERTUPAL'. A specific cure for whooping cough in 1 or 2 weeks.

Composition. Belladonna, Drosera, Lobelia, Grindelia, salts of magnesium and potassium. Try this first or give this a last trial and be convinced of the efficacy.

1 packet costs Re. 1/- 2 packets for a complete Cure.

Proprietors: D. PAUL & Co., Chemists, Tuticorin.

Sole Agents: Messrs. RAGULAL & Co., Chemists, 13, Thambu Chetty St., G. T., Madras.

Highly useful
in combating
SEVERE TYPES
OF PRIMARY
& SECONDARY
ANÆMIAS —

A pleasantly flavoured fresh
extract of liver of sheep, Alembic
LIVERALCO has proved highly
effective wherever tried. It rapidly
increases the number of blood
cells and restores the blood
picture to normal.

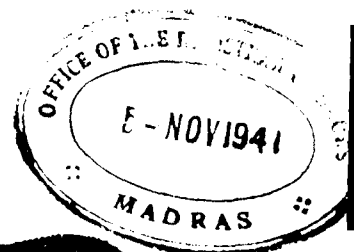
Alembic

LIVERALCO
FOR SEVERE TYPES OF ANEMIAS

One ounce
of Liveralco
represents
8 ozs. of raw liver.

ALEMBIC CHEMICAL WORKS CO. LTD., BARODA.

THE MEDICAL PRACTITIONER



OVER ACIDITY & STOMACH

Troubles



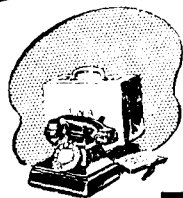
CARBO-KAOLIN

This effective and very valuable antacid
will relieve over-acidity, dyspepsia, indigestion,
irritation and ulceration of the stomach, nausea
and pain after food, intestinal fermentation and
putrefaction etc.

It is a well-balanced combination of Carbonates
of Calcium, Magnesium Peroxide and Pancr-
eatin, in a soothing and absorbent Kaolin base.

CARBO-KAOLIN IS ALSO AVAILABLE WITH BELLADONNA

ALEMBIC CHEMICAL WORKS COMPANY, LIMITED, BARODA.



*From one Doctor to another **

The after-treatment of Malaria, Influenza and Bronchitis.

In building up the patient's strength when lowered vitality follows illness, the use of WINCARNIS is frequently attended by a most gratifying improvement. Its pleasant flavour and aroma make it readily acceptable even in cases where the lightest and daintiest sick-room diet is refused. It stimulates the appetite and has a definite, beneficial action on the digestive system, enabling the patient to get full benefit from the food taken. Being free from all drugs, WINCARNIS may be safely prescribed in cases of severe prostration; its tonic action and strengthening elements promote the natural activity of gastric functions rendered subnormal by feeble muscles and the lowering effects of prolonged illness. WINCARNIS encourages healthy sleep and enriches the blood-stream, increasing the patient's resistance so that there is little chance of relapse.

WINCARNIS is a blend of pure matured wines, strengthening elements and vitamin malt extract (4850 International units Vitamin A per ounce; 700 units Vitamin D).

A wineglass or two a day is the usual prescription.

One of a series published by the proprietors of WINCARNIS—the tonic wine

COLEMAN & CO. LTD., WINCARNIS WORKS, NORWICH, ENGLAND



WINCARNIS ★ over 25,000 recommendations from Medical Men

IM/W/120

THE Medical Practitioner

Annual Subscription { Inland Rs. 3
Foreign Rs. 4

Single Copy As. 6

Vol. XIII]

OCTOBER, 1941

[No. 1

Original Articles

TREATMENT OF PNEUMONIAS.

BY

DR. V. RAMA KAMATH.

The object of this article is to give comprehensive details of treatment of pneumonias occurring under diverse circumstances with as diverse clinical phenomena and histological changes in the lungs, the starting point being the inflammation of lung tissue in every variety of pneumonia. Usually pneumonias are divided under the following categories.

- I. Lobar Pneumonia :
- II. Primary broncho-pneumonia or Lobular pneumonia.
- III. Secondary broncho-pneumonia.
- IV. Influenzal pneumonia.

Lobar Pneumonia is classified amongst specific infectious diseases and not amongst lung-diseases as in the case of other three pneumonias.

Primary broncho-pneumonia is to a certain extent a specific disease attacking children under three years of age and at times running a course not dissimilar to the specific lobar pneumonia especially in regard to its sudden onset and its termination by crisis. Even the causal organisms in both the varieties have something common in their species.

The secondary broncho-pneumonia occurs in two groups: 1. As a sequence of infectious fevers such as measles, diphtheria, whooping cough and less frequently of small-pox, erysipelas and typhoid fever. In the febrile affections of adults broncho-pneumonia is not quite so common. In old people broncho pneumonia is a common affection, following debilitating diseases of any sort and supervening in the course of chronic 'Brights' disease and various acute and chronic maladies.

2. In the second division of broncho-pneumonia may be mentioned cases of so called aspiration or deglutition pneumonia. It occurs when the larynx is benumbed as in the coma of apoplexy or uraemia when minute particles of food or drink reach the smaller bronchial tubes and excite intense inflammation. Aspiration pneumonia may follow operation performed in the region of nose, throat or mouth. Both secondary broncho-pneumonia as well as primary are most common in children, while the adults of advanced age are the victims of secondary broncho-pneumonia only.

Influenza is a disease of diseases. There is not a single organ for which it has not special attraction. The fact that it has special proclivity for the respiratory system

is known to all. It may manifest itself from a common 'cold' to massive pneumonia of any description, lobar, lobular, midway between the two and as complications of this disease any conceivable morbid condition of lung may supervene at any time in the course of influenza.

Whatever be the causal agency in bringing about pneumonia, in other words, inflammation of the lung tissue, the underlying indications relating to the rational treatment had been just the same till about a couple of years ago when chemotherapy revolutionised the treatment of pneumonia to a marvellous extent. But till then and even now excepting chemotherapy the other general lines in regard to the treatment of pneumonia has just been the same and will continue to be the same even in future.

To convince the readers, I may say, that excepting a few, all the other etiological factors in relation to the exciting or predisposing causes of primary pneumonias are just the same. In secondary pneumonias though the starting illness is some infectious disease or other, the pneumonia that follows brings about changes in the lungs, which for the purpose of treatment, are more or less the same as are found in the lungs where pneumonia is a primary factor. All old books and even the latest, stress the following causes in etiology of primary pneumonias which are more or less the same in secondary pneumonias, the only difference being that while the former starts as such, the latter starts as some other illness and the pneumonia is the sequence.

COMMON ETIOLOGICAL FACTORS.

Sex: It is said that men suffer more than women and the cause assigned is that the former are exposed more to the atmospheric influences.

Social position: Under this head it is mentioned that pneumonias are more common amongst the poor and badly fed and amongst those whose occupation necessitates an irregular life or greater exposure than amongst the richer classes of people.

Constitution and previous health: All books say that those who are constitutionally weak and those whose vitality has been impaired by intemperance, insufficient food, anxiety or overstrain, etc., are more prone to pneumonias than the strong and vigorous.

Climatic influences: Conditions of weather and climate are said to be the most important of all known causes for pneumonias, and it is said that lobar pneumonia as well as lobular are more frequently met with during cold and damp weather.

My own observations: Whatever may be the experience met with in cold countries relating to climatic conditions and social position as regards lobar pneumonia I can say that I have come across cases of lobar pneumonia amongst the rich and poor alike, but the chances of recovery may be more in the former as they can afford better medical relief and other facilities during treatment. I should say that I treated cases of lobar pneumonia more during the hotter seasons than during the cold and damp weather both in the city of Madras lying in the east coast of India and for a few years in the west coast of this country where it was my lot to practise for a few years before I settled in Madras. I may also say that it has been my experience that if adults suffered from chicken-pox, they were prone to catch lobar pneumonia. I treated a large number of cases of lobar pneumonia which started as a sequela to an attack of chicken-pox.

Having said so much regarding the etiology as an aid to discuss the treatment of pneumonias, it is necessary for the same purpose to refresh the mind relating to the pathogenesis and morbid anatomy of pneumonias. In lobar pneumonia and in primary broncho-pneumonia of children the infection though aerogenous in origin at times terminates as a haemotogenous generalised infection. Consequently toxæmia is usually more marked and may involve other systems such as the cardiovascular, gastro-intestinal and the nervous. In secondary pneumonia

the involvement of these systems is not common unless due to primary disease which preceded secondary pneumonia. For example, the brain and other symptoms in typhoid fever will be present before secondary broncho-pneumonia starts. In fact, in almost all infectious diseases a picture of the lungs may be seen due to hypostatic congestion and cardiac complications not dissimilar to that seen in broncho-pneumonia. In lobar pneumonia inflammation begins in the substance of the lung, whereas in lobular pneumonia the inflammation begins from inside the mucous membrane of the lung and then spreads to the substance of the lungs, with the result that in lobar pneumonia there is not so much engorgement due to exudates in the bronchioles as in broncho-pneumonia. For the same reason pleurisy is usually a constant attendant factor in lobar pneumonia and not in broncho-pneumonia. This phenomenon also explains that the cause of respiratory and cardiac distress is generally due to obstruction of air passages by the exudates in broncho-pneumonia whereas in lobar pneumonia degeneration of heart muscle starts first and tells upon the lungs later due to backward pressure. In the later stages of both types of pneumonia the vicious circle brought about primarily by the lungs or by the heart is just the same for the purposes of treatment which must be expectant characterised by waiting for eventful symptoms.

After the advent of chemotherapy in the treatment of pneumonia the responsibilities of the practitioner in the diagnosis of the several types of pneumonia must have naturally been more onerous than in the past in spite of the modern aids to diagnosis. The modern tendency to prescribe sulphanilamides indiscreetly for pneumonia must be condemned. It is therefore necessary that the practitioner should be in a position to diagnose accurately the type of pneumonia he has to deal with. It is not always that he is called upon to treat pneumonia in the early stages. At times the physical signs are so baffling that one cannot depend upon them to arrive at a correct diagnosis and a practitioner should get all the available history

in an intelligent way in which case very often he could be sure in his judgment than if he were to depend upon physical signs only. For, large areas of consolidation may at times be found at the bases, result of hypostatic congestion, which may simulate consolidation of lobar pneumonia in the stage of grey hepatisation and chemotherapy in these cases is likely to do the patient immense harm. In such cases the safest thing to do will be to examine the blood of the patient and if there is a tendency for leucopenia never hazard by having recourse to chemotherapy even if one is sure that the case is one of lobar pneumonia. Nothing definite is known about the action of sulphanilamides, but all are agreed that injudicious use of them leads to serious consequences on account of the changes they bring about in the haemoglobin.

I have attempted to give a brief picture of the pathogenesis of pneumonias and their morbid anatomy along with the etiological factors with the purpose of convincing the readers that in spite of variations in their details there is a common ground for the treatment of pneumonias of whatever origin. The rationale and indications for the treatment of pneumonias at a certain stage is just the same though at the very commencement they differ and should differ depending upon the causal agency, be it organisms as in primary pneumonias or the effect of organisms or other constitutional factors as in case of secondary broncho-pneumonias.

TREATMENT.

Prevention: As in all diseases the first aim of a physician should be to prevent pneumonia. So apart from maintaining the nutrition and general health the usual advice should be to avoid chill, exposure to 'cold.' It is always a good rule to have a warm bath after exposure to wet weather and to change clothes after heavy perspiration in hot weather. People should be advised of the dangers of a neglected attack of 'cold' which is considered to be a trivial complaint

159643

41-13

1-2

through insidiously it causes many deaths due to neglect.

General management: Lobar pneumonia is closely allied to the specific fevers. So also to a certain extent is primary broncho pneumonia of children. Secondary pneumonias to a great extent are associated with specific fevers. It is universally recognised that all conditions which tend to impair the general health and strength favour the occurrence of diseases especially those due to organisms. The weak and debilitated suffer most. Bad hygienic surroundings, improper, insufficient food and food deficient in vitamins and in inorganic salts are the predisposing causes for any illness much more for diseases of bacterial origin. Depressed health not only weakens resistance of the tissues and favours development and spreading of the diseases but also diminishes the power of the respiratory muscles. We know that we cannot always be sure of arresting the progress of pneumonia when it once starts, but we can very often do much to maintain the strength of the patient and modify such of the dangerous elements in the disease which tend to destroy life. In fine, the responsibilities of a physician are akin to those of a captain of a ship surrounded by a storm. The captain can never stop the storm but he can guide the ship so that it does not dash against rocks and slowly bring the ship safe ashore. The two great dangers in pneumonia are damage to the tissues generally and the interference with respiratory function due to lung consolidation. Of this, the former which impairs the power of cardiac musculature is more serious. It is those who are debilitated by age or privation and those of intemperate habits that succumb. The struggle is between the disease and the resisting power of the individual. The above considerations indicate that the physician should do all that is possible for him to husband and support the strength of the patient. He should not interfere too much with the course of the disease unless the circumstances indicated by the signs and symptoms of the disease are such as to necessitate active interference.

This advice should be closely followed in the case of lobar pneumonia.

The above general principles should be always borne in mind throughout the treatment of pneumonias. The patient should have absolute rest in bed and speaking should be forbidden. The patient's room should be large and airy and must be as far as possible uniformly of the same temperature. A plentiful supply of fresh air is most important. In lobar pneumonia there is not the same necessity to keep the patients scrupulously protected from draught as in broncho pneumonia. The benefits of rest and good nursing are usually beyond comprehension even in some enlightened house-holds in India. The use of a bed-pan is also detested by many. A patient is generally assigned a room which is nearest to the bath room and is allowed to get up and walk up and down the bed to the bath room. I should say many deaths in Indian house-holds due to attacks of pneumonia may be attributed to negligence of general management of the patients. So general arrangements should receive special attention. Pneumonia is a disease during the course of which doctors despair many times. It is also a disease where all concerned feel most gratified when a patient whose prognosis was one of grave anxiety survives. Even in bed the movement of the patient should be restricted to a bare necessity. A faithful intelligent nurse should be put in charge of the patient. And in case good nursing cannot be afforded, the patient should have institutional treatment.

The toilet of the mouth is another item not considered of importance during illness by a large number of patients or those in charge of them. So the practitioner should see to it at the time of his visit and instruct the nurse that the mouth should be kept scrupulously clean. The safest and cheapest mouth wash is weak condy's lotion, and glycerin of borax is an ideal application for the tongue, gums and lips. The fear for drinking water especially during an attack of pneumonia is another evil which has to be withstood in Indian houses. Instructions should be given to

give enough quantity of liquids to prevent thirst. It should be remembered that free use of water helps a good deal in lessening toxic symptoms.

Diet should be in liquid form. Milk diluted with barley or rice water, barley or cornflour gruel sweetened with sugar may be given. The feeds should be small and given hourly or two hourly. Coffee and tea may be allowed. If milk is not agreeable and causes indigestion, it may be given with sodium citrate (a grain or two for an ounce) or, whey or invalid foods may be substituted. Fruit juices, especially juice of pomegranate will be a good addition to the dietary. Glucose is now an item in the Indian sick room which is used and even abused, the poor not being an exception to its use. I am of opinion that ordinary sugar does the work of glucose. I have also found that there is a tendency in some patients for a rise in temperature if too much, say over 4 ounces, of glucose is given per day. Alcohol in pneumonia should not be given as a matter of routine especially to those who are not accustomed to it. To those patients who have been habitually using alcohol, alcohol in the form of whisky or brandy in measured quantities may be allowed. But if cardiac failure threatens, brandy should be given in therapeutic doses even to those who are not used to it. Vitamins A, B, and D, may be given with advantage throughout the course of pneumonia.

Special Treatment: From good old days certain measures were believed to have an influence in arresting, controlling or cutting short lobar pneumonia. Bleeding was one such measure. Osler favoured this practice in robust and healthy individuals in whom lobar pneumonia started with great intensity attendant with very high fever and brain symptoms. Certain drugs such as veratrum viride (tincture in 2 or 5 m. doses) tincture aconite in the same doses and tartar emetic were considered to be helpful in reducing the intensity and duration of attack.

Now the drug of choice is sulphapyridine (M and B 693). This preparation seems

to be the only one without an equal so far in the treatment of lobar and primary lobular pneumonia of children. As mentioned elsewhere during the administration of sulphapyridine blood should be examined every day, and as soon as there is a tendency for leucopenia, sulphapyridine should be stopped immediately.

Sera: For several years in the past, before the use of chemotherapy in the treatment of lobar pneumonia, therapeutic anti-serum was considered to be effective. I have not used it at all in my practice and perhaps it is never used now as chemotherapy has come to stay.

SYMPTOMATIC TREATMENT.

Pain: In lobar and primary influenzal pneumonia there is usually a stitch-like agonizing pain in the side due to the involvement of pleura. If sulphapyridine is given at the outset to the patient suffering from lobar pneumonia, the inflammation of the lung being marvellously checked there will be no need to give any drug to relieve pain as with the control of inflammation of the entire lung substance the inflammation of the pleura is bound to be arrested. But in cases of influenzal pneumonia where the disease manifests as pneumonia at the very onset there will be need to relieve the pain due to pleurisy as sulphanilamides have no control on influenza much less on influenzal pneumonia. The pain is pointedly intensive to start with and becomes diffused after a few days. Turpentine stupes relieve the pain to a certain extent. Cold applications are also advised in books. It may be all right just at the very commencement of the disease. Later, cold applications are likely to do more harm than good. Hypodermic injection of morphia is generally advised but I found the following prescription invariably very useful.

MIXTURE A.

R/ Quinine sulph.	...	grs. 10
Acid citric	...	grs. 60
Liq. morphia Hydrochlor	grs. 40 to 60	
Syr. Zingiberis	...	ounce 1
Aqua Chloroform	to ounces 4	

MIXTURE B.

R/ Potas Bicarb	...	grs. 80
Soda Salicylas	...	grs. 40 to 60
Ammon carb	...	grs. xx
Vin Antimony	...	m. 80 to drs. 2
Glycerin	...	ounce 1
Aqua camphor	...	to ounces 4

An ounce of A. with an ounce of B. every 4 hours to be swallowed during effervescence. Along with the above the following powders are also given:—

Calomel	...	grs. 2
Sac lact.	...	grs. 8

Divide the above into 4 powders.

One in honey to be given half an hour after the patient takes the above 2 mixtures.

The ingredients in the A. and B. mixtures relieve pain (morphia), control fever (salicylate), liquify secretions (vinum antimony), serve as a stimulant and expectorant (ammonia) and to a certain extent act as bactericide (quinine). While divided doses of calomel counteract the constipating action of liq. morphia, so also does glycerin to a certain extent. If the patient cannot stand the taste of quinine, I give the following prescription and also divided doses of calomel.

Pot. citras	...	grs. 60
Soda Salicylas	...	grs. 40 to 60
Pulvis Doveri	...	grs. 20
Liq. Ammon. Acet	...	ounce 1
Tinct. Zingiberis forte	...	m. 10
Glycerin	...	ounce 1
Aqua Camphor	...	to ounces 4

N.B.:—*Pulvis Doveri* does not dissolve in water and must be added last after straining the mixture. The mixture should not be strained after adding *Pulvis Doveri* and should be well shaken before use.

Fever: In all pneumonias fever ranging from 102° to 103° or even 104° should

not be interfered with. But if temperature persistently keeps at 104° and the patient shows signs of the effects of high temperature as evidenced by dry tongue, restlessness, delirium and prostration, the best means to control fever is hydrotherapy. Cold sponging invariably checks the fever. If not, cold pack should be resorted to. If cold pack has to be used at a later stage of the disease especially in children, the temperature of the pack should be graduated beginning with a warm pack and slowly reducing the heat to 75° or 80°. The cerebral symptoms are very much relieved by the wet pack along with temperature. When the patient is in the wet pack, it is necessary he should have an ice bag on the head or else blood is likely to rush to the head.

Cough: 1. Moderate cough to bring out accumulated mucus from the lungs should not be interfered with at all. But in case it is distressing, disproportionate to the pathological requirements and if accompanied by pain, opium in some form or other is demanded. The safest preparation for children is camphorated tincture of opium of which a child one year old may have 4 to 5 m. for a dose. Adults may require stronger preparation of opium such as *Pulvis Doveri* or *Liq. Morphia*. These preparations should be administered with care. The sedatives may be added to the expectorant mixtures mentioned below and stopped soon after their purpose is served.

In a typical straightforward case of lobar pneumonia which terminates by crisis on the 7th day and earlier if sulphapyridine is administered there is no need of giving stimulating expectorants and a mixture like the following is all that is needed, and that for a few days after crisis.

R/ Pot. citras	...	grs. 60
Ammon. carb	...	grs. 20
Tinct. cinchona Co.	...	drs. 2
Syr. tolu	...	ounce 1
Aqua chloroform ad.	...	ounces 4

One ounce 3 or 4 times a day.

In broncho-pneumonias of children and the aged where broncho-pneumonia develops after an acute attack of bronchitis and in all other secondary-broncho-pneumonias care should be taken that the exudate in the bronchioles is expectorated satisfactorily and not accumulated to the extent of embarrassing the lungs. Care should also be taken that the cough is not disproportionate *i.e.*, more than necessary to bring out the expectoration. If the cough is irritative, it should be controlled lest the patient should get exhausted unnecessarily. It should also be remembered that in the case of children stimulating expectorants are of no avail as children usually swallow the expectoration. In the earlier stage an alkaline expectorant mixture with additional ingredients to act as a diaphoretic is all that is necessary both for old people as well as children. The following mixture for adults serves all indications:—

Pot. citras	...	grs 60
Liq. ammon Acet	...	ounce 1
Vin. ipecac	...	mins 80
Spt. aether nit.	...	mm 80
Syr. tolu	...	ounce 1
Aqua camphor ad.	...	ounces 4

One ounce every 4 hours.

Four or five days later, the prescription may be changed.

R/ Ammon carb	...	grs 20
Vin. ipecac	...	m 80
Tinct. senega	...	m 80
Tinct. cubeb	...	m 80
Tinct. cinchona Co.	...	drs 2
Tinct. digitalis	...	m 20
Syr. tolu	...	ounce 1
Aqua camphor ad.	...	ounces 4

One ounce for a dose to be given every 4 hours.

A child one year old may have the following prescription:—

Ammon carb	...	grs. 5
Ammon chloride	...	grs. 10

Soda benzoas	...	grs. 15
Tinct. cubeb	...	m. 20
Ext. glycyrrhiza Liq.	...	dr. 1
Tinct. digitalis	...	m. 5
Tinct. cinchona Co.	...	m. xxx
Brandy	...	drs. 1 to 2
Syr. tolu	...	dr. 2
Aqua camphor	...	to oz. 1

1/8th part for a dose to be given mixed with equal quantity of hot water every 4 hours.

Lungs should be examined carefully every day and the ingredients of the expectorant mixture modified or altered depending upon the condition of lungs.

Applications to the chest: Apart from the purpose of relieving pain during the early period of the attack of lobar or primary pneumonia as in influenza warm applications to the chest conduce to a large extent in aiding resolution. The most popular application is Antiphlogistine or its Indian made substitute. I invariably found that it was misused if the application is entrusted to lay people. Very often one would find that this stuff is put on a piece of lint and kept on the chest somewhere which may not be the seat of pneumonia. A very thin layer is spread over the lint even without warming the tin containing it and the lint is not fixed with a bandage. There will not be even a jacket or shirt over the lint. In the name of Antiphlogistine the lungs are exposed more than protected. Antiphlogistine to be useful should be first warm to a temperature which is soothing to the skin spread over lint of the size a little bigger than the surface of the lung which is affected. In case of broncho-pneumonia it should cover entirely both lungs. The Antiphlogistine on the lint should be sufficiently thick, not less than 1/4th of an inch. Over the lint there should be a liberal wadding of cotton wool, and a bandage should be applied comfortably tight. Antiphlogistine to be useful should be applied once in 24 hours. It is always safe to have the Antiphlogistine application in the presence of the attending physician. Considering the cost of Anti-

phlogistine and more than that the disturbance to the patient every day and the attendant risk, I invariably advise a cotton-wool jacket which practically serves the purpose of Antiphlogistine without any risk.

Insomnia and Delirium: Sleeplessness is at times a most troublesome symptom which taxes the brain of the physician. It may be due to pain of pleurisy at the early stage, later, it may be due to irritative cough. Both may be relieved at least to a certain extent. But when the sleeplessness is due to high fever attendant with delirium and other toxic symptoms, the anxiety stage of treatment begins. It is not desirable to rush to hypnotics at once. The physician should carefully observe and find out the actual cause or causes that bring about sleeplessness. In the choice of hypnotics much discretion has to be used before choosing the most powerful and the drastic one as all hypnotics have other bad effects on the system. Their effect should have only the purpose desired. Bromides may be considered least harmful. When given, their dose should be not less than grs. 20 for adults and 2 grs. for a child one year old. If combined with Chloral hydras, their action is more certain in which case the dose of Bromide may be proportionally reduced. Luminol is another mild hypnotic. Paraldehyde is indeed a good old time-honoured hypnotic which, but for its nauseating taste may be said to be the least harmful. To be effective it should be given in 2 or 3 drs. dose to adults in a sweet smelling vehicle. Children may have it per rectum. There are a lot of patent preparations belonging to the barbiturate group. The practitioners these days are more familiar with these than with the B. P. preparations. Amongst the latter opium preparations should be had recourse to as a last measure especially in the case of children, taking care that these preparations do not check cough and secretions more than necessary. Pulvis Doveri, morphia, codeine, omnopon are some of the preparations of choice. If morphia is given hypodermically not more than $\frac{1}{4}$ gr. should be given and with it atropine $\frac{1}{200}$ or $\frac{1}{100}$ of a grain per dose should be combined. Hydrotherapy and

judicious doses of alcohol should be given a fair trial before resorting to drugs.

Gastro-intestinal Symptoms: In all cases of pneumonia, throughout its course the bowels should be regularised so that the patient has one motion a day at least. This is best done by having recourse to divided small doses of calomel in the early stages. Later an olive oil or glycerine enema is all that is needed. Under any circumstance drastic saline purgatives should not be given at any stage remembering that even without such irritation, diarrhoea and dysentery are the common complications in all types of pneumonia especially in the case of children. Tympanitis is another constant factor. As soon as gastro-intestinal symptoms crop up, the first thing to do is scrupulous attention to diet. Milk should be stopped and patient put on arrowroot gruel without milk but sweetened to taste. Albumin water, whey and patent foods may be given a trial. Strong astringents should not be given to check diarrhoea or dysentery. These evacuations are nature's ways to eliminate the poison. With restriction of diet the following prescription will do to control diarrhoea in the case of a child one year old. In adults the ingredients should be increased proportionally.

R/ Calomel	...	gr	1
Salol	...	grs	6
Soda bicarb	...	grs	6
Pulvis Creta Aromat	...	grs	10

Divide into 8 powders.

One in honey every 4 hours.

For Dysentery castor oil emulsion is all that is needed.

R/ Castor oil	...	drs	$1\frac{1}{2}$ to 2
Gum Acacia	...	Q. S.	
Salol	...	grs	6
Spt. Chloroform	...	m	10
Aqua cinnamon ad	...	ounce	1

$\frac{1}{2}$ part every 4 hours.

N. B.—As soon as stools become faecal in dysentery and in diarrhoea devoid of smell but very frequent and watery, 4 to 5 grs. of Pulvis Doveri may be added to the above mixture or powder.

Tympanitis in children may be controlled by a rectal tube in combination with turpentine stipes and turpentine enema. Turpentine may also be given by mouth. The following is a prescription for an adult.

R/ Oil of turpentine	...	m	40
Gum Acacia	...	dr	1
Aqua cinnamon ad	...	ounce	4

$\frac{1}{2}$ part every 4 hours.

If the above measures do not check tympanitis efficiently, hypodermic injection of posterior pituitary relieves tympanitis wonderfully. In the case of adult female patients who are pregnant this preparation is contra-indicated.

Cardiac and Respiratory Failure: Throughout the course of pneumonia it is the cardio-vascular system that requires the utmost vigilance. Respiratory failure and cardiac failure are concomitant factors causing danger to life but one cannot be sure where the vicious circle starts. In lobar pneumonia and other primary pneumonias the heart is likely to be affected primarily more than the lungs. In broncho-pneumonia of whatever origin, it is the lungs that are likely to be affected first. But the end result of both failures are just the same relating to their treatment. So in lobar pneumonia the routine use of cardiac stimulants or drugs like digitalis is not called for in the beginning. They should be resorted to the moment cardiac weakness is seen as evidenced by rapid, low pulse over 120 in adults. The lung signs will be oedema in places where there was no inflammation to start with.

Opinions differ relating to venesection when heart weakness is due to overfilling of the right heart. If done at all, it should be done early. I had no occasion to have recourse to this heroic treatment. If cases of

pneumonias which come under treatment in early stages when cardiac or respiratory embarrassment has not started, a careful and attentive physician will be able to prevent his patient drifting to the stage of cardiac or respiratory failure. Very often progressive cardiac asthenia is due to the action of poisons on cardiac muscle and on nerve centres controlling the heart and the lungs. In addition to the judicious pushing of alcohol, the patient must be given hypodermic injections of strychnine which may be done safely till physiological limits reach especially in case of children suffering from broncho-pneumonia. Somehow or other for reasons beyond my comprehension this valuable and most useful drug is out of use these days. Is it because it is so cheap and can be commanded by even the most poor patients? In all serious cases of broncho-pneumonia, I always give one hypodermic injection of liq. strychnia (B. P.) a day and if I see a case late with threatening symptoms of respiratory failure I push the injection every 4 hours. Strychnia by skin and a suitable expectorant mixture with liberal use of brandy have invariably saved many children. If the child does not cough and the air passages are blocked with mucus, one should not hesitate to give an emetic to a child and the best drug is vinum ipecac. In adults there is no need to have recourse to an emetic. Ether and camphor in oil were once the favourite preparations to be given by the skin route and musk by mouth in cardiac and respiratory distress. Now a days cardiozol and coramin have taken their place. It is always safe to add 5 mms. dose of tinct. digitalis in the expectorant mixture for old people during the course of broncho-pneumonia. In fact, at one time even for lobar pneumonia digitalis was considered to be a specific and was prescribed in pretty big doses at the very commencement of the disease. Advances in the proper knowledge of pathogenesis and morbid anatomy have considerably improved the methods of treatment and digitalis is not thought of in lobar pneumonia except when the resulting toxæmia leads to cardiac asthenia. If radial pulse is low and over 120 per minute, one should not hesitate to prescribe digitalis in lobar pneumonia and if

the pulse is irregular in addition, digitalis is the only sheet anchor to increase the chances of recovery. Digitalis in powder form is considered to be more reliable than tincture and for hypodermic use, digitalin is usually chosen. In pneumonias, to combat cardiac failure saline with glucose by vein should be used with great care. If the use of saline is indicated, the safer route will, be the skin or rectum as a large quantity of saline by vein is likely to embarrass the lungs which are already oedematous. Drip-method by rectum is ideal and seems to be one of choice with Col. McRobert, the senior physician in the Government General Hospital, Madras. He is said to be using the drip method in all cases of toxæmias especially in typhoid patients who refuse every thing by mouth or are not in a position to swallow even drops of water. The fluid sent under the skin should not exceed 2 pints in 24 hours.

Oxygen therapy: Osler in his book does not speak well in regard to the use of oxygen gas in the treatment of pneumonia. In fact he condemns its use and quotes other authorities of his age. He warns that in case the tension of the oxygen gas breathed rises to 80 per cent of an atmosphere, oxygen gas would certainly do harm. This fact may be a consolation to such of those who cannot use or did not use oxygen gas in their practice. But all practitioners should keep pace with the times. Oxygen therapy is now the routine in all diseases attendant with air-hunger. There must be surely fool-proof instrumental methods which cannot allow the oxygen cylinder to give out oxygen to bring it to a level which is injurious even to healthy patients. If the practitioner cannot be sure of the safety in administering oxygen gas, he will be wiser to relieve his patients of cardiac or respiratory distress or both without the use of oxygen gas. Oxygen by the nasal route through a rubber catheter sent in as far as the naso-pharynx is the method of choice in the Madras hospitals.

Convalescence: When it is known

how much damage is done to the most important organs, the heart and the lungs during the course of pneumonia, the responsibilities of the physician cannot cease soon after the treatment of pneumonias. In addition to the heart and lungs the whole system as a rule suffers. So general management of the patient cannot stop till the patient regains all that is lost. Rest in bed for a week or even a fortnight after crisis in mild cases of lobar pneumonia is to be strictly advised and in serious cases for a longer period. Usually patients who suffered from broncho-pneumonia require proportionately longer period of rest. During convalescence sudden failure of heart at times ushers in without any warning especially in elderly people—and a patient may be dead before the doctor arrives. Such tragedies are very common in these days. Care about diet should also continue for some time. Record of temperature and weight should not be neglected. Long continued low temperature and loss of weight should always raise suspicion of tuberculosis infection. Change of climate is conducive to health but a patient running a temperature should not be sent out unless the attendant physician makes suitable arrangement for the observation of his patient by the physician who is expected to take charge in the changed locality. Cod Liver Oil and any elegant preparation of calcium and iron may be given during convalescence. Depletion of vitamins and inorganic salts from the system during the attack of pneumonia should not be lost sight of.

It need hardly be stressed that in the treatment of secondary pneumonia, the original diseases of which secondary pneumonia is a sequela should receive as much attention if not more.

In this article I have left out the consideration of broncho-pneumonia due to tuberculosis.

REFERENCES:—Osler's Text Book on The Practice of Medicine. The British Encyclopaedia of Medical Practice.

Nicosil

'Cipla'

ON THE SAFE SIDE
OF SULPHANILAMIDE THERAPY

Avoid these byeffects

Headache
Mental Apathy
Vomiting, Nausea
Skin rashes
Cyanosis, etc.

R
Nicosil
For the combined
Therapy with
Sulphanilamide
& Nicotinic Acid

REFERENCES:

Georgia Medical Association Journal Atlanta, 28. 39-80 Feb. 1939, Journal of American Medical Association p. 756, V. 114, March 1940, Journal of American Medical Association p. 1606, V. 114, No. 17 April 1940, British Leadership in Pharmacy, p. 17, Dec. 1940, Schweiz. Med. Wchnschr. p. 453, V. 70, 1940, Practitioner p. 213, V. 143, 1940, Journal of the Indian Medical Association p. 273, V. 10, No. 6 March 1941, Vitamins by Robert Wollheim, Published by Books of Merit, Inc. New York, U.S.A. p. 52, 1941, Medical Bulletin p. 307, V. 9 No. 9 May 1941.

PACKING

Bottles of 25 and 100 tablets.

DOSAGE

One to three tablets three times a day.

CHEMICAL, INDUSTRIAL AND  PHARMACEUTICAL LABS., LTD.,
289, Bellasis Road, Byculla, Bombay.

THE CIPLA AGENCY. 145, BROADWAY, MADRAS.

ECZEMA.

By

DR. K. V. KRISHNA, M.B.B.S., (Hong-Kong).

Recent advances in medicine have materially modified and changed the nomenclature of some of the diseases, and eczema is one such disease. From good old days eczema has been recognised as an eruption due to abnormal sensitiveness of the skin which brings about inflammation which in its typical form is associated with the formation of papules and vesicles. These burst having a more or less excoriated surface, discharging a gummy serous fluid which stiffens into a thin crust as it dries. The important peculiarity in this disease is itching of unusual type.

AETIOLOGY: Eczema is by far the most common disease of the skin met with by the practitioner and as troublesome a disease to deal with. It is seen in all periods of life but the special time it usually occurs is during the periods of first and second dentition, and in the later period of life in adults, and not so much seen in youth and middle age. All the same it has to be remembered that special sensitiveness is the constant factor in eczema and so age is no consideration. Other aetiological factors in regard to this disease have been made to appear in books written by specialists on the subject, as separate entities though the final pathological condition of the skin is almost the same. For the purpose of simplicity I would classify eczema as the 'wet', also called 'weeping' eczema, the 'dry' and a third variety midway between the 'wet' and the 'dry'. Under aetiology two sets of causes are mentioned and described: (1) External causes (2) Constitutional causes otherwise mentioned as internal causes.

Under external causes, physical or mental strain, susceptibility, irritants (physical and chemical) have been included. Digestive disturbances, diabetes uric acid diatheses, rheumatism, nephritis, chronic infections (pyorrhoea, tonsillar sepsis), disturbances of the nervous system (such as dentition in children, neuroses in uterine

troubles), abnormalities of secretion and of circulation (which alter the resisting power of the skin) are the internal or constitutional causes seen in modern and old books of medicine. But if one carefully goes into the causes, external and internal, one will find that the common background underlying them is the nervous system. For it must be the experience of a large number of practitioners that eczema does not develop in all the patients suffering from the diseases mentioned above nor do all those exposed to the physical causes mentioned in text books of medicine develop eczema. It may therefore be said that eczema is a manifestation of a pathological factor which tells upon the skin through the nerves, not dissimilar to the manifestation of asthma in the lungs and cannot be a disease of the skin in the strict sense, as asthma as such is not the disease of the lungs. The skin and the lungs are merely the seats of the diseases and the origin of the disease is in the nervous system. The present tendency with dermatologists seems to be to eliminate from the nomenclature of eczema all cases of dermatitis where they are able to discern a specific local cause. But it has not been possible for them to dissociate the term eczema because in all these conditions, the characteristic histological features seen in eczema are prominent. Some dermatologists describe dermatitis appearing in special regions in the body by different name denoting such regions. So we find in books eczema called by different names, the suffix or prefix used denoting the specific causes or regions. Others make mention of all different types of eczema under an omnibus heading, "Eczematoid Dermatitis". But so far none has been able to dissociate the relationship of the nervous system to eczema. The words, 'faulty innervation' or something to that effect could be seen in almost all books dealing with eczema. The purpose of stressing the relationship of the nervous system with eczema is to impress on the readers the necessity of

keeping this fact in their minds while treating eczema of whatever denomination or variety. For, the successful treatment of this troublesome disease depends entirely on lessening the sensitiveness of the system and increasing the resisting capacity by all possible means. The tendency to get prescriptions either from books or from a skin specialist is far too much in busy practitioners than to find out for themselves the underlying basic cause that started eczema.

Having mentioned briefly the aetiology of eczema, let me as briefly mention the important features in regard to the histology and pathology of eczema. From the study of books and observations made by me while treating eczema I am led to believe that eczema is a neurosis having its lesions in the skin, though the term neurosis does not imply any lesion in the nervous system itself. It is a vasomotor disturbance perhaps central and, at times, may be also peripheral. The part played by constitutional diseases and organisms and local irritants has been enumerated and all these causes are likely to disturb the central or peripheral nervous system. Histologically all the changes seen in eczema of whatever origin or denomination are due to inflammation of the skin. The earliest stage of inflammation shows dilatation of the capillary vessels in the skin with exudation which stretches itself into a multilocular vesicle. As the exudation continues it is carried upwards towards the horny layer of the skin which finally ruptures allowing serum to escape. If one of the vesicles is opened before it bursts itself, the serum collected out of it does not contain eucocytes or microbes. The contamination of eczematous skin begins soon after the vesicles burst and the contamination is from outside. The discharged serum after contamination forms into crusts. At this stage only eczema gets contaminated. Later other changes occur of a proliferative nature and the epithelial cells undergo partial keratosis. The papillae in the skin get increased in size and appear distended and globular. The epidermis in uncontaminated eczema is not lost and usually there is no scar. But at times eczema gets contaminated by bacteria in which case scarring takes place. This may happen a

case strong irritant is the starting point of eczema or due to the irritative ingredients in the applications used during the course of treatment of eczema.

CLINICAL MANIFESTATION: After attempting to give a picture of eczema in regard to its aetiology, histology and pathology, I shall place before the readers its clinical picture briefly with the hope of making the treatment part of it rationally understood. Eczema is remarkable for the varying appearance it assumes depending upon the acuteness of the inflammation, the stage of the disease and the parts affected. In the early stage which is known as the stage of erythema the affected part is red and a little swollen; later this patch is covered with vesicles and papules which are of very short duration. The vesicles burst giving out gummy serum on an excoriated surface. The process of healing begins when the excoriated surface gets dry and later on covered with scaly crusts which fall off leaving the skin in a comparatively healthy condition.

There are variations in the development of eczema; in one variety the inflammation may be so acute and the serous exudation is so excessive as to produce marked swelling of the tissues. In another variety which is commonly seen there may not be oozing of gummy secretion in the second stage, and in its place dry and scaly patches are seen. These are not even moist. Eczema of this kind is attended with much itching but there is no pain nor even tenderness on pressure over the affected area. In a third variety there may be a general distribution here and there over the whole body. In some places the patches appear symmetrically.

Although eczema may attack any part of the body, it seems to have predilection for certain regions such as the flexor surfaces of the limbs, the hands, the scalp, the junction of skin with mucous surfaces such as the anus, and the genitals. There are also cases of eczema where the irritant to start the disease is an organism usually staphylococcus, at times streptococcus or a combination of both. Depending upon the special regions where

the eczema appears and causal organisms found, recent books on medicine call eczema by special names.

Flexural Eczema: This seems to be common in youth and markedly manifests itself in the flexures of the armpit, elbows, knees and inguinal regions. It starts with a very itchy sensation at these different regions requiring violent rubbing of the surface to ease the itching. The result of the rubbing causes oedematous papules which are covered with crusts. The area becomes thickened and may look like a dry patch and may at times be raw and weeping. This type of eczema is very often associated with particular families or with individuals suffering from asthma.

When I was writing this article my friend Dr. V. Rama Kamath mentioned about three patients in whom eczema was a syndrome of relief. One, a male adult, married; another, an unmarried male, and a third, an unmarried girl in whom eczema of this type manifests at varying intervals especially during the cold weather.

The first patient had fairly good health till about his 20th year when he came to Madras to study in the B. A., class. Madras food did not agree with him and he had repeated attacks of gastritis. He had to give up his studies. In the meanwhile he was married. Some time later he developed melancholia of which condition he is not quite free even now. During the period of his melancholia he got an attack of eczema of a generalised type the flexural regions being also the seats of dermatitis. Curiously enough his mental condition vastly improved during the attack of eczema and ever since when he gets the attack of eczema which at times is very marked on the head being of the seborrhoeic type his mental condition marvellously improves, so much so when the eczematous condition is at its pitch he looks normal in his mental condition. He is at present neither free from eczema nor melancholia.

The second patient belongs to a highly neurotic family his two brothers and two

sisters have been the subjects of cyclic insanity. He has been suffering from eczema of the face simulating a mild attack of lupus. He has been under the treatment of skin specialists but was never relieved of eczema which gets worse during the cold season. Olive oil is the only application that relieves him. Knowing well the familial history of this patient Dr. Kamath is of opinion that repeated attacks of eczema must have acted as a counter preventing him from getting serious mental attacks from which his brothers and sisters suffer.

The third patient has a history of having had the first acute attack of eczema a month or two after she was vaccinated when she was under one year of age. The parents have been bitterly complaining even now that vaccination is the cause of the eczema which this girl has been getting now and again ever since she was vaccinated. This girl also comes from a highly neurotic family and herself is highly of a nervous temperament. From what Dr. Kamath knows of the family he is of opinion that eczema in her case is a syndrome relating to nervous system and vaccination was only an accidental coincidence.

Children's Eczema: These are described as existing in two types: one, the simple and the other seborrhoeic. There is a type of eczema in adults also called seborrhoeic eczema by usage and it is a surprise why dermatologists have not given up this nomenclature which really does not signify the term. For it is said by some eminent dermatologists that sebaceous secretion is not usually affected either in the adults or in the children's variety. They also state that in children under the age of two years, seborrhoea is unknown and that in infants sebaceous glands do not function.

The simple type begins on the cheeks, chin and the forehead usually in the cold season. Children under six months are generally affected. The eczematous areas are symmetrical and the marked feature is itching. The baby is seen constantly rubbing or scratching the parts. At times

the scratching is so intense as to cause severe bleeding. With suitable treatment and even without, the eczema is said to subside before the end of the second year.

The seborrhoeic variety may as well be suitably called dry eczema. This manifests itself usually on the scalp, at the junction of the scalp with the external ears, commissures of the eyelids, between the lips and the alar margins of the nose. During dentition simple eczema round about the ears and the lower limbs is very common in the Madras Presidency perhaps throughout this country and it is the common belief that if serious attempts are made to cure the eczema and if eczema dries up or heals quickly, the children get convulsions or other complications. The Tamilians call this eczema as '*Karapani*'.

I have watched infants and children subject to eczema, they are invariably highly precocious or dull, indicating that their nervous system is abnormal.

Eczema due to varicose veins: It is said to be due to interference with the circulation of blood in the skin resulting in nutritional changes in the skin which lowers its resisting capacity. Accidental injury to such a part damages the skin into which bacteria, streptococci or staphylococci get entry and start the inflammation resulting in eczema.

Modern books make mention of a few more varieties of eczema which are otherwise called by them, streptococci, staphylococci dermatitis or simple traumatic dermatitis where some features of eczema are predominant. The regions where these appear are said to be the upper and lower limbs, on their extensor surfaces, the usual places for which eczema has always a predilection. If infection is the only cause for the inflammation of the skin, why should this inflammation resemble eczema is not explained by the authors who classify eczema as above.

COURSE OF ECZEMA: If the practitioners are able to find out the cause of eczema, they will be able to effect a cure in a reasonable short period. Otherwise

eczema persists indefinitely and patients may suffer from it during the whole period of their life time. In such cases it passes into a chronic stage and gets infected with bacteria. Eczema may develop into such thickened patches as to simulate elephantoid tissue.

DIAGNOSIS: Those who have treated eczema successfully will not find it difficult to diagnose the majority of cases of eczema. It is true that in some respects eczema in certain stages of development resembles a large number of other skin diseases but a careful history and observation in detail will go a good deal to arrive at correct diagnosis. If it is remembered that eczema is a simple inflammatory process, with a marked tendency to itching, with multififormity of lesions, with indefinite course and a predilection to certain regions in the body and more than anything else that it is a definite syndrome of peculiar sensitiveness, it will not be difficult to diagnose eczema from other skin lesions. Syphilis is the only disease which has a tendency to appear in the skin with the same predilections for some definite regions. History and blood test will help the practitioner to arrive at definite diagnosis, in case of doubt, many a time the diagnosis is very puzzling.

Eczema is possibly mistaken for a large number of skin diseases such as erythema multiforme, prurigo, various forms of herpes, erysipelas, psoriasis, lichen planus ring-worm etc. Junior practitioners will do well to refer to books and make a careful study of the features of the skin lesions before they begin treating cases of eczema and even before they consult specialists on the subject. Eczema being the most common skin disease an intelligent study and grasp of the disease should be the aim of all general practitioners. The impression once made in their mind when they actually treat the disease after careful study and personal observation is not likely to mislead them.

TREATMENT

Diet: A careful diet is of great importance in the treatment of eczema,

especially in children and in gouty and dyspeptic people not to mention about diabetics and other patients suffering from constitutional diseases requiring close attention to diet. In acute cases it will be a good rule to put the patients on a very light diet and restrict their activities for about a week. This will help to relieve the inflammation to a great extent. Tea and coffee and acid fruits should be restricted. After a week's rest the patients may be permitted their usual food; even then, too much sweets, pastries, salt fish, meat, fried stuffs, highly seasoned food should be avoided as also alcohol. Patients who are regular alcoholics may be allowed the same in moderation. Special food sensitiveness is to be noted in children and food regulated accordingly. But such a control is not much needed in the adults. Nursing mothers whose babies suffer from eczema should receive attention in regard to their health, food and habits as these directly tell upon their babies.

It would be more rational to find out deficiencies in the system which brings about 'sensitiveness' for a peculiar item of diet or a particular irritant than to find out food sensitiveness by elimination of food. For elimination of the items of dietary which are usually liked by the patient and which ordinarily are wholesome in all other respects, are likely to interfere with the general health and make such patients more sensitive to other more serious diseases. So, attempts should be made to make the system resistive. Want of vitamins, inorganic salts in the system or any disturbance in the endocrine secretions many of which directly tell upon the central and autonomous nervous system and give rise to syndrome of sensitiveness, should be found out and attended to. To find out all such deficiencies it is necessary that a thorough overhauling of the patient should be made by examining the stools, the urine and the blood in addition to the general examination of the patient. Knowing as all of us do that it is the nervous system of the patient that is at fault in eczema, all conceivable care to be taken to eliminate all possible causes that disturb the nervous system. The disturbance may be even

due to physical or mental strain or the derangement of nervous system may be due to diseases, systemic, or specific. Both should receive the attention in the treatment of eczema.

Bathing and washing require special attention in eczema especially in Indian houses where daily bathing is the routine. Use of highly scented soaps for the body and head being the fashion of the day especially in young boys and girls there will be always an urge for keeping the eczema patches clean and free from smell by overdoing washing with soap. Boys and girls should be told that soap is an irritant to the skin and at times is likely to start an attack of eczema. They should also be warned that it is harmful for the growth of hair on the head. Strict advice should be given that under no condition should soap be used in eczema. It is a pity that enlightened Indians who breathe and speak Swadeshim do not give the same attention to the Swadeshi methods of bathing, washing and eating too. Powdered nuts, leaves, some of which are sweet smelling and powdered grains (green gram, Bengal gram and horse gram) were the materials used for head and body washing instead of soap. None of these are irritants to the skin and instead of destroying hair cuticle in the head they encourage their growth.

The patients should be told that the eczematous patches should not be cleaned with soap, instead, the accumulated exudation or crusts, should be wiped gently with clean sterile cotton swabs soaked in olive or coconut oil to which may be added Carbolic acid or Sandal wood oil (10 drops of the former or 5 drops of the latter to an ounce of oil). Later when greasy ointments have to be applied to the eczematous area and thick crusts have to be removed, the part may be cleaned with thin gruel of rice powder or arrowroot, spreading on the swab soaked with gruel a little fine powder of horse gram. Green-gram powder may be used to the head and other places which are not papular. It is said that green gram contains more phosphate than horse gram and phosphates are said to encourage the growth of germs. The parts of skin

which are free from eczema should be kept clean with daily sponging or washing with cold or warm water depending upon the weather and the liking of the patient. Body should be dried with soft towel without much rubbing lest it should irritate a sensitive skin.

In case of gouty patients alkaline baths may be good. A teaspoonful of Soda bicarb to a pint of water will make the water alkaline. Body bath twice or thrice a week will add to the general comfort and well being of the patient. During the bath it is advisable to smear the eczematous areas with a thick coat of the ointment used by the patient, and, if possible to protect the part in addition by covering it with a water proof cloth.

Regulation of bowels is a most important item in the treatment of eczema as usually the internal causes of the disease is toxæmia of some origin or other and the toxins can be eliminated to a large extent by the regulation of bowels. A brisk cathartic, calomel or blue pill at night followed by a saline purgative in the morning is the ideal to be followed with as an initial measure. After this some milder laxative to be administered daily so that the bowels move freely once or twice a day. For children I prescribe Soda phosphate and for adults Magnesium sulphate or Soda sulphate in combination with Magnesium carb. A child one year old may have

R/
Soda phosphates ... drs. 2.
Aqua anethi ... ounce 1.

A teaspoonful or two once or twice a day depending upon the costiveness of bowels.

Occasionally or daily for about a week, in addition to the above, the child may have a night dose of the following powder:

R/
Grey powder ... gr. $\frac{1}{2}$
Soda bicarb ... gr. 2
Pulvis rhei ... gr. 1

Make one powder.

Adults may be given the following:

R/
Mag sulph ... dr. 1 to 2
Mag carb ... grs. 30
Aqua menth pip ... ounce 1.

The draught to be taken first thing in the morning and to be repeated at 3 p. m. if bowels do not move.

Patients suffering from nephritis do not tolerate Mag sulph. So in these cases Soda sulph may be substituted for Mag sulph.

Another useful aperient is:

R/
Mag sulph ... dr. 1 to 2
Quinine sulph ... grs. 2
Acid sulph dil ... mms. 10
Ferri sulph ... gr. $\frac{1}{2}$ to 1
Aqua menth pip to ounce 1

One dose to be taken twice a day after food.

The above mixture has a very good effect in anaemic patients. One or two modern dermatologists speak very high of quinine in 5 gr. dose which they say works very well as a sedative for nervous patients. I have not read in any book that quinine is a nerve sedative. But I may say it is an alternative in small doses in almost all diseases of bacterial origin, may even be a bactericide. Among other mild aperients may be mentioned preparations of cascara sagrada, senna, aloin and colocynth in combination with belladonna and nuxvomica. In gouty individuals alkaline aperients with Vinum colchicum should be the medication of choice.

Specific Treatment: Pilocarpine hypodermically $\frac{1}{16}$ to $\frac{1}{8}$ gr. Ergot and ichthyol were considered to be drugs that will modify favourably attacks of

eczema. I have mentioned them only to discourage their use. Arsenic in the form of Liq. arsenicalis in 2 to 5 minims dose for adults proportionately in lesser quantity in children is another drug which has stood the test from olden days. Its use is recommended only in sub-acute and chronic cases and not at all during the acute stage of the disease. This drug has the reputation of acting as an alternative in cases of asthma where it is given in gradually increased dose up to the limit of tolerance freely diluted in water (to be given after food).

Autohaemotherapy: Arthur Whitfield advocates strongly autohaemotherapy. He mentions two indications for its use: (1) If eczema is accompanied by furunculosis and (2) if a peculiar reaction can be elicited on the eczematous patch. This reaction he calls "white line." It is a white line resembling the wheal in urticaria which is noticed as a slight depression seen at the spot of eczematous patch when it is stroked with a camel hair brush or a wisp of cotton. This depression results from the autonomous contraction of the capillaries and the consequent diminution of turgidity of the skin.

"From 2 to 5 cc of blood is drawn from the patient's vein and injected immediately in the gluteal region. The injection is repeated using 10 cc after 5 days time and subsequently further injections are given once a week for five to six weeks. The failure of the 'white line' to appear on stroking is often the first indication of recovery."

Protein Shock Therapy: 5 to 10 cc of sterile milk is given intramuscularly at 2 or 3 days interval. Peptone is also used for the same purpose. This therapy being harmless is worth trying.

Desensitisation: The offending substance which may be the cause of eczema is found out by applying it to the skin under pieces of strapping or introduced into the skin by puncture or scarification. In the case of the patch test a local eczematous patch appears and in case of puncture or scarification a wheal is produced. The

cause of sensitiveness being thus discovered, in some cases it has been possible to desensitise the patient by injecting hypodermically an extract of the offending material in minute and gradually increasing doses. The same purpose is served by autohaemotherapy or protein shock. I am mentioning this therapy out of academic interest. I had no occasion to use it at all.

Local Treatment: In the local treatment of eczema we have to keep in mind two important indications: one to get rid of the irritation that started the disease, the second is to subdue the inflammation. In chronic cases in addition to the above indications we should direct our efforts to relieve the trouble some itching. During the stage of erythema lotions are best suited. Opium and lead lotions (10 drops of tinct opium and 10 drops of B. P. liq. plumbi subacetatis to an ounce of water) may be dabbed over the part for 15 to 20 minutes at a time when the sensation of rawness starts. If convenient the parts may be kept wet with lotion (soaking a piece of lint and covering the inflamed part with it). The lint should be kept throughout the day. At night the wet lint must be covered with gutta-purchar tissue or oiled silk to prevent it from getting dry. If this does not suit, the next best application is liniment calcis prepared with almond oil or coconut oil. This may be applied on lint or painted over the surface very frequently.

Dr. Kamath tells me that when he just started practice in Mangalore where his patients were largely the country folk, he invariably used thin linseed poultice instead of lotions and he had good results. Calamine lotion is at present largely used. Arthur Whitfield advocates the use of coal tar in very small proportion even during the stage of erythema. The following is his prescription:

Calamine	... 180 grs.
Zinc oxide	... 120 grs.
Solution of coal tar	... 20 mms.
Glycerine	... 90 mms.
Distilled water to	... 8 ounces.

To be mopped as frequently as possible.

He found in some people Zinc salts too irritating (probably owing to the formation of minute quantities of zinc chloride of the skin). So as a substitute to the above lotion he advises the following lotion:

Sterilized Kaolin	... 480 grs.
Strong solution of lead sub acet	... 90 mms.
Alcohol	... 480 mms.
Glycerine	... 90 mms.
Solution coal tar	... 20 mms.
Distilled water to	... 8 ounces.

As soon as hyperaemia subsides and with it the discharge, greasy applications are advised. The following Malcolm Morris formula for zinc cream is said to be useful:

Olive oil	... 480 mms.
Anhydrous lanolin	... 120 grs.
Zinc oxide	... 480 grs.
Lime water	... 300 mms.

To the above 2 to 4 per cent proportion of calomel is added if there is tendency for bacterial infection. Arthur Whitfield observes that in some cases the above ointment has too drying effect and he substituted the following:—

Zinc oxide	... 120 grs.
Starch	... 120 grs.
Anhydrous lanolin	... 30 grs.
Soft paraffin to	... 480 grs.

To relieve itching during the early stage of eczema the parts may be dabbed for 10 to 20 minutes with lotions containing 5 to 10 grs. carbolic acid; 5 to 15 grs. of thymel, ichthyol 5 to 20 mms in an ounce. Soon after the part may be covered with zinc ointment on lint. At times to relieve itching in the affected parts near the genitals or anus nothing like pads of lint

wrung out of hot water to which 20 grs. of soda chloride or soda bicarb should be added. Even here soon after the hot fomentation zinc ointment is to be used. Itching and tendency to suppuration may be checked by the use of silver nitrate. Strong solutions should not be used at first. A solution of 8 grs. to an ounce of distilled water will be all right to begin with. Later the solution may be made stronger up to 20 grs. to an ounce. Silver nitrate seems to act better in 10 to 15 percent of alcoholic watery solutions.

During the stage of suppuration mercurial ointments have a healing effect, calomel, yellow oxide of mercury, white precipitate mercury are the preparations of choice.

The following is Arthur Whitfield's prescription for suppurating eczema:

Calomel	... 10 grs.
Yellow oxide and mercury.	5 grs.
Zinc oxide	... 120 grs.
Starch	... 120 grs.
Lanoline	... 30 grs.
Soft paraffin to	... 480 grs.

With the soothing applications such as have been mentioned above, we are able to get through the acute forms of eczema. Many a time a soothing application may be all that is necessary. But in certain of these acute cases and more especially in subacute and chronic cases we may have to resort to stimulating applications. If such applications are found necessary, we have to proceed very cautiously. Even in chronic cases one has to be very careful in using stimulating ointments.

In subacute cases of eczema when crusts are about to form, I found the following simple ointment very effective:

Acid salicylic	... 3 grs.
Acid boric	... 60 grs.
Zinc oxide	... 60 grs.
Anhydrous lanoline	... 240 grs.
Soft paraffin	... 240 grs.

Rub well so that acid salicylic may be uniformly mixed.

In more chronic cases Acid salicylic may be increased as far as 6 grs. to an ounce of ointment or even more. Preparations of coal are universally used in subacute and chronic eczema. Whatever preparation is used it must be commenced in minute doses and gradually increased noting the effect on the eczematous patch.

Arthur Whitfield advises the following ointment of coal tar:

Prepared coal tar B. P.	... 30 grs.
Zinc oxide	... 30 grs.
Starch	... 180 grs.
Soft paraffin	... 300 grs.

The ointment should be rubbed very gently once a day after wiping off the previous application with olive oil swabs. Before applying coal tar preparation the suppuration if any should first be controlled.

The following are the other two preparations of coal tar recommended by Arthur Whitfield.

Stockholm tar or	
Birch tar oil or	
Oil of cade	... 5 mms.
Lead plaster	... 180 grs.
Soft paraffin	... 300 grs.

Melt the lead plaster with the soft paraffin and stir in the tar thoroughly. The ointment should be spread in a thick layer on gauze.

Stockholm tar or	
Birch tar oil or	
Oil of cade	... 10 mms.
Hard paraffin	... 30 grs.
Anhydrous lanolin to	... 480 grs.

Sulphur is contra-indicated in cases of simple eczema and Arthur Whitfield prescribes it only in the so-called Sebor-

rhoic eczema. When the skin is erythematous, he advises the following lotion:

Precipitated sulphur	... 30 grs.
Calamine lotion to	... 8 ounces.

If the skin is not inflamed, sulphur, salicylic acid or resorcinol is advised in 2 p. c. strength in the form of ointment.

For the last few years I have been using a proprietary ointment *3 A M A* with excellent results as a local application in eczema especially in subacute and chronic conditions. Its ingredients are given as *Hydrargyri ammoniata Liq. plumbi subacet forte Liq. carb detergens, lanolin and soft paraffin*. Every one of the ingredients has a special indication to suit its use.

X-Rays: X-Rays are at times used indiscreetly in the treatment of eczema. The aim in X-Ray therapy seems to be to increase 'the inflammation and subsequently calming it down'. Dermatologists advocate this therapy in cases where all possible treatment failed to relieve local condition of the skin. The X-Rays may relieve the local subjective signs and symptoms temporarily in a few cases. But its use in all cases of eczema cannot be encouraged by those who have a scientific grasp of aetiology of eczema. When X-Rays have to be used, great care is to be taken about their dose, area of skin where they have to be used. The use of X-Rays should be under the direct supervision of the dermatologist who advocates the X-Ray therapy.

LOCAL FORMS OF ECZEMA.

In the foregoing pages reference has been made to special forms of eczema depending upon the underlying causes. As I was coming to the end of the article I felt the necessity of making reference to local forms of eczema to make the subject complete.

Eczema of the Face: Eczema of the face as such occurs both in children as well as in adults. In children the eczema from the face may pass downwards but in adults this type of eczema does not

spread beyond the face. Both in adults as well as in children, occasionally any type of eczema which is a manifestation of internal disturbances and which starts in other parts of the skin may also appear on the face. But there is a distinct special type of eczema in adults which attacks only the face and seems to be distinctly due to vasomotor disturbance. It is erythematous eczema with little or no oozing but the itching is most rebellious. It is seen always in elderly people. Though the signs and subjective symptoms may abate under treatment, the acute stage recurs and the face loses its features and may look like that of a leper. At times there may be pyogenic infection and the inflamed area may simulate erysipelas.

The local applications should be soothing and antipruritic, stronger than those used for ordinary types of eczema. Most important part of treatment is the management of general health, patient being advised to live a quiet life without worries and excitement. They should live in a locality having mild and equable climate.

Eczema of the Hands and Feet: W. A. Pusey of America mentions that the eczema of hands and feet is mainly due to metabolic and toxic causes as eczema of face is of vasomotor origin and manifests itself in the hands and feet of such individuals who have to do manual labour, these people having to handle some irritant or other in the course of their work. I know one or two surgeons who have been suffering from this type of eczema due to their intolerance to certain lotions. It appears on the palmar surface and gradually extends to the dorsal surface. The peculiarities in these cases is a tendency for keratosis of the skin which becomes very much thickened making the normal line and furrows deeper giving rise to painful fissures. Itching is not a prominent symptom; it may be even absent. The feet may also be involved in the same way and the lesions are always symmetrical.

In this type of eczema care should be taken if the patient has gouty or rheumatic

diatheses and disturbance of digestion requiring suitable constitutional treatment. Indications for local treatment is just the same as in other types special attention being required for the stimulating part of the local treatment. It should be remembered that eczema of feet is at times due to poor circulation and suitable treatment should be adopted to improve the circulation due to whatever cause.

Eczema of the Legs: In this region the important fact in its production, is the venous stasis; so the eczema in the legs is generally due to varicose veins and it is always symmetrical. The sites of greatest intensity are the sides of the legs between the ankle and middle of the calf. The involvement of the skin and its degree varies from a simple eczema to all sorts and of all descriptions. Ulceration is very common so also hypertrophy of the connective tissue which may assume elephantoid appearance. The indications of local and constitutional treatment is just the same as in other types. But the patients should have more rest in recumbent position and the legs should be bandaged from the feet upwards with sufficient cotton wadding, the local application on eczematous patches being made on lint or gauze; the bandage should extend a little over the eczematous patches.

Eczema of the Genitals and Anus: A brief reference was made about the eczema of these parts earlier in this article. In females the cause is invariably due to ovarian dysfunction especially during menopause and nothing can relieve the eczema or the most distressing itching unless suitable endocrine hormone is prescribed. In males diabetes, gouty or rheumatic diatheses may be the cause. In both, the male and the female mental disturbance plays an important role. So the indication must be to counteract all the causes of mental disturbance and treat the patient for any constitutional diseases if present. Pathological secretion oozing from the genitals or anus should also receive attention. Thread worms are the cause of mischief especially in women and children.

Eczema of the Auditory Meatus: It may be of a 'dry' or a 'wet' variety. In the former type itching is a prominent symptom and in the latter, thin or gummy matter may be dribbling almost the whole day and whatever part it touches may become eczematous or there may start a tendency for eczema even on parts where the matter from the ear did not reach. Eczema of auditory meatus is invariably bilateral and is found more in children.

General indications for treatment are the same as in other varieties. Local treatment in the dry variety consists in the cleaning the meatus with swabs of an alkaline lotion consisting of borax or soda bicarb (2 to 3 grs. to an ounce) and then applying weak citron ointment (1 part to 6 parts soft paraffin). In the wet variety, the meatus should be gently syringed with warm zinc lotion (2 grs. to an ounce) and dried. Soon after yellow ointment of mercury should be applied with a camel hair brush. The weeping may also be checked by the application of silver nitrate solution (8 to 10 grs. to an ounce) after first making the meatus dry. It will be a good rule to protect the external by smearing the same with soft paraffin in which are rubbed a few grains of carbolic acid (5 grs to an ounce). At times the meatus gives very offensive smell due to pyogenic infection when Iodoform will be a good ingredient in the local applications.

Eczema of Eyelids: Blepharitis is found in poorly fed children and also in adults. Error of refraction is at times the only cause. Treatment consists in well balanced dietary and prescribing of suitable glasses, cleaning the lids with olive oil and the application of yellow oxide of mercury ointment is all that is needed by way of local treatment.

Eczema of Lips: This is found in ill nourished people who have gastrointestinal trouble. At times no history of ill health will be given by the patients. Some books say it is a siborrhoic type of eczema. I am inclined to believe it is a manifestation of some deficiency in the system. Generally it exists as a sub-acute or chronic erythema. If patients

are dirty by habits, serous exudations and crusts may be formed at the mucous surface of the lips touching the skin, I prescribe glycerin of borax as a local application and treat patients for gastric or intestinal troubles if they are present. In addition I advise patients to take Vitamin B. and C.

Eczema of Nipples: This is seen in nursing mothers. Pain due to the fissures or itching is the prominent symptom. The baby's mouth may be the cause of irritation. It may be suffering from thrush; so the mother should be advised to keep the baby's mouth clean with diluted glycerin of borax and immediately after nursing, the mother should be advised to clean the nipples with boric lotion. The simple and the best local application is tinct benzoin co.

CONCLUSION.

Eczema is a syndrome of 'sensitiveness' and hence a disease of the nervous system manifesting itself in the skin. The origin and the course of the disease may get complicated by pyogenic bacterial infection; excepting for this complication the histological changes seen in the disease are characteristic. The sensitiveness of the nervous system may be due to physical or nervous strain without any tangible pathological lesions or due to toxic conditions brought about in the system by constitutional or specific diseases directly or indirectly affecting the nervous system. The treatment of the general system is as important if not more than the local treatment. For the latter purpose the old remedies such as the preparations of zinc, lead and mercury hold their own. So also preparations of coal tar. I should say that the Indian climatic conditions do not demand large quantities of zinc oxide for local medication especially to protect excoriated surfaces from exposure, as zinc oxide has a tendency to keep the parts more dry than necessary.

Before closing I must express my gratitude to my friend and old school-mate Dr. V. Rama Kamath for his valuable help and guidance without which I would not have ventured to write an article on a speciality which is the domain of the dermatologist.

Abstracts.

PHYSIOLOGICAL PRINCIPLES IN THE TREATMENT OF TRAUMATIC SHOCK.

By

R. J. S. McDOWELL, M.D., D.Sc.

Professor of Physiology, King's College, University of London.

HÆMORRHAGE.

In these days of enlightened surgery it is tragic that fatal shock is still so much taken for granted, and yet anyone who thinks must realize that unless a vital structure is injured no patient should die from physical injury. Too often, unfortunately, the patient is not adequately treated until a stage of practically irreversible shock is reached. Accurate treatment requires time and trouble and, so far, in this country little or no attempt has been made to utilize to a maximum the medical services in relation to this important problem. It may well be asked why a physiologist should presume to make such assertions, and it should therefore be pointed out that he is fully conversant with the phenomenon of shock in experimental animals, in which he can produce and control several varieties of shock at will, although he does not pretend to have reached a complete solution of the problem. Irreversible shock is due to a generalized asphyxia of the tissues, which produces a dilatation of the peripheral vessels, which soak up the available blood and, by their increased permeability, allow the fluid to filter from the capillaries into the tissues. The blood pressure falls and this fall, by impairing blood supply, further enhances the asphyxia, which eventually affects the nervous system and causes death. The circumstances that lead to this fatal cycle are diverse, but for practical purposes cases fall into three groups: those due to hæmorrhage, to toxæmia and to abnormal activity of the nervous system. What the exact change in the nervous system is, and exactly what toxins are at work, are matters of debate. Present knowledge, however, indicates that there is much that may be done for shocked patients, but that there is no justifiable reason for treating all cases of shocklike, as has been so common.

The most common form of shock is that produced by hæmorrhage and fortunately it is the most easily treated, so easily indeed that in the literature there is a great deal of fallacious argument. Many workers, unfamiliar with the literature of shock and with animal experiments, have rushed into the field of work producing shock by severe crushing injury to limbs. The treatment they chance to be extolling is considered quite erroneously to be applicable to all kinds of shock. It has been shown beyond all doubt, especially by Blalock and his co-workers, that the majority of shock so produced is simply due to hæmorrhage, or loss of plasma, into the injured limb, for the weight of the limb increases. This, if translated into terms of blood, would be a sufficient withdrawal of fluid from the circulation to cause a profound fall of blood pressure. The theory that shock is liable to follow the release of a tourniquet applied to an injured limb has received a new explanation. It was once thought that the removal of the tourniquet allowed toxic substances to pass into the general circulation, but evidence is now complete that it allows an accumulation of fluid—blood and fluid that has filtered into the tissues—in the injured limb, especially in the loose tissues around the shoulder and groin. This effect is enhanced by a loss of the peripheral resistance in the same area. Shock from hæmorrhage, whether obvious or concealed, is easy to treat in the early stage, as the peripheral resistance is maintained by the increased action of the vasoconstrictor centre. The blood depots are constricted. Fluid of any suitable form (see later section) introduced into the circulation causes an immediate recovery of the arterial blood-pressure, which may be taken as an index of the recovery.

Because the peripheral resistance is raised, however, the arterial pressure recovers long before the venous pressure, which does not return to normal until a larger amount of fluid has been added to the circulation. It cannot be over-emphasized that the earlier the fluid is given the better the prognosis for, if a low arterial blood-pressure, say of 60 mm., is allowed to exist for an hour, the nerve centres responsible for the maintenance of the peripheral resistance become impaired and relax their hold. Further, the asphyxia produced causes capillary dilatation and starts the fatal cycle. Haemorrhage is diagnosed in its early stages by the history, examination of the injury, the skin pallor, rapid heart-rate, progressive deterioration of the pulse, characteristic restlessness, and dilution of the blood.

TOXAEMIC SHOCK.

This type of shock is seen typically in the delayed form in which the first sign is an increased concentration of the blood, as indicated by the blood count, which may reach over 100 per cent. increase, by haematocrit readings, and haemoglobin estimations. A 10 to 20 per cent. increase is a sign of impending shock. The patient slowly becomes apathetic and limp. The primary lesion is a direct action of the toxins in the capillaries which dilate, soak up blood, and permit the loss of blood fluid, as described in relation to asphyxia. The toxins may be the products of tissue damage or of bacterial growth. The arterial blood-pressure does not fall at first, and until the vasoconstrictor centre and the adrenals have done their best to keep it up. There may even be an over-compensation to begin with, and the pressure may rise. It must be stressed, however, that in physical injury even a slight fall of blood pressure is of the greatest significance, as it means that the shock is already well advanced and that immediate treatment is called for.

Peculiar to the treatment of this kind of shock is the use of extracts of the adrenal cortex. It has been abundantly shown in animals that when the adrenal cortex has been removed death occurs, which is indistinguishable from shock

because of an increased capillary permeability. It is suggested that the hormone concerned (not to be confused with adrenaline, which is elaborated by the medulla of the adrenal gland), has a special function in controlling capillary permeability. Evidence of the value of adrenal cortex extract in this form of shock is very convincing, but unfortunately so far its use has been limited in this country. At the same time the blood volume must be maintained, taking care not to overfill the venous side. The fluids which may be used for this purpose are numerous and are dealt with below.

SHOCK OF NERVOUS ORIGIN.

It would seem from a perusal of official memoranda that the importance of the nervous element in shock is in danger of neglect, although prior to the last war all observers in the subject, notably Crile and Lockhart-Mummery, laid great emphasis on it. It is now commonly stated quite glibly that recovery in early primary shock is usually rapid. It is for clinicians to judge the validity of this statement, but surgical opinion is certainly divided, for it is well known that many patients are admitted to hospital, some after slight or moderate injury, in a condition of shock from which they do not recover. Experimentally there is no doubt that in suitable animals immediate and fatal falls of blood pressure may be produced by quite minor injury to bones and muscles. Shock is produced also by an opposite state of affairs, namely, excessive sympathetic stimulation—notably by the prolonged infusion of dilute adrenaline. (This should not be confused with the rapid shock produced by liver damage from the injection of massive doses.) The shock may be produced by the blood being driven into the muscles or by intense peripheral constriction and consequent asphyxia.

Treatment—In all shock of neurogenic origin benefit from anaesthesia may be expected, its value being not only that it relieves the pain if present but that it cuts off afferent impulses and abolishes consciousness. That severe pain may cause a profound fall of blood pressure is

well known but, on the other hand, such falls have occurred in the absence of pain, yet the rise of pressure resulting from anaesthesia has indicated the nervous factor concerned. It does not appear to have been suggested previously that the anaesthetic may then be an important aid to diagnosis and subsequent treatment. The anaesthetic used for the purpose should be nitrous oxide, but ether may be used, as it is required for a short period only. If this causes a rise of blood pressure then a basal anaesthetic should be given. Here again we have, so far, little information, but Higgins of Woking, acting on this suggestion, has obtained most satisfactory results by the use of avertin in obstetric shock. This drug closely resembles nitrous oxide, in that it produces what may be described as a high anaesthesia without depression of the lower centres. It may be that the benefits of morphine are due to a similar action in damping down the afferent impulses from the injured part, and to the depression of consciousness, thereby preventing the effects of fear which are so commonly evident in such cases. Whether or not anaesthesia, or ergotamine to damp down the sympathetic, may be of value when there has been excessive sympathetic activity from fear or pain, has not been decided. It may well be that by the time the patient is treated the intense stimulation is over and the depression is its result, and in that case a sympathetic stimulant might be best.

CHOICE OF FLUID AND MODE OF ADMINISTRATION.

As has already been indicated, if the blood pressure has even fallen slightly shock should be anticipated, and any time lost may cost the patient his life. The simple saline fluids are almost always available and must not be overlooked for immediate treatment. They may be given by the mouth or by the rectum if there is vomiting, although this can be mitigated by giving slowly and by adding ice. Normal saline, 0.9 per cent., or roughly a teaspoonful (flat) to the pint, may be of the utmost value. Hypertonic saline, such as that used by Rogers in the

treatment of cholera, is still better if the shock is advanced. The difficulty, however, regarding simple saline solutions is that they pass through the capillary walls into the tissues and are rapidly excreted by the kidneys. They may, however, tide over an emergency. A great search therefore has been made to find a fluid which has an osmotic pressure not dependent on crystalloids, as these so readily pass through capillary walls.

The best fluid to introduce into blood vessels is *fresh blood* of the proper blood group, and in the larger centres this is available. *Stored blood* appears to be remarkably efficient and, of recent years, *dried plasma*, which is readily soluble in distilled water, has become available. This substance has the advantage that it may be used in a slightly more concentrated form than blood so that its proteins may, by osmotic action, draw any fluid which may have left the circulation back into the blood vessels. It is also readily transported, and there is little reason to believe that distilled water is essential, as a slight hypertonicity is no disadvantage. *Blood serum* has also been advocated but, since its fibrin has been removed by clotting, its osmotic pressure and capability of being retained in the blood vessels is not so good as that of unclotted plasma. In severe haemorrhage, however, plasma and serum have the great disadvantage compared with blood that they have no blood corpuscles with which to carry the urgently required oxygen. There is much to be said in favour of the *intramuscular* injection of fluid, because the vessels of the muscles are almost certainly dilated and absorption is presumably rapid. When immediate results are expected the *intravenous* route must be preferred.

The Amount of fluid to be given:—Competent pathologists assert that it is now common to see at post-mortem examination patients whose tissues are quite water-logged from over-treatment with fluid. First, it must be emphasized that the arterial blood-pressure is no guide to the amount of fluid to be given, except in recent haemorrhage. In those forms of shock due to toxins or to nervous causes,

there is a peripheral dilation of vessels and a loss of peripheral resistance, with the result that long before the arterial pressure has recovered the venous pressure may have risen much above normal and the patient is in a state similar to that which occurs in heart failure. The high venous pressure, combined with a high capillary pressure, capillary stasis and increased permeability, results in the rapid passage of fluid and even protein from the vessels into the tissues, including the heart and lungs. In addition, the high venous pressure may embarrass the heart.

It is unfortunate that the official apparatuses for administering fluids have not been designed to allow the venous pressure to be recorded at the time of the administration, but a side-tube may readily be added for use as a manometer. In all cases in which infusion is being administered, especially by the drip method, it must be remembered that it is possible to give an excessive and fatal amount of fluid without there being any rise of arterial blood pressure. As regards the general problem of fluid administration it is well to point out the advisability of all persons liable to exposure to severe injury, such as A.R.P. workers, to be warned that they should be well supplied with fluid during periods of duty.

ANÆSTHESIA

Often an anæsthetic is necessary for operative procedures, but the actual anæsthetic is not a matter of indifference as is so often thought, even by professional anæsthetists. It has been said that as the patient is only semi-conscious a little ether is all that is necessary. Nothing could be more fallacious. Too often the anæsthetist and the surgeon imagine that their duty is done if the patient is alive a few hours after the operation, and a few days afterwards the patient dies as a result of the anæsthetic, which may just set in progress the fatal cycle.

It has been abundantly shown that many toxins which are quite harmless to un-anæsthetized animals are poisonous if the

animal is anæsthetized with ether or chloroform. Moreover, the anæsthetic tends to paralyse the normal vasomotor compensation and adrenal mechanism. An anæsthetic which does this less than others is nitrous oxide. It is not favoured by surgeons because it does not give the complete relaxation which is so essential, especially for abdominal work. The relaxation may, however, be readily achieved and shock lessened by the local anæsthetization of the nerves. Admittedly this takes time, but it may help to save the life of the patient. Anæsthesia may also be used as an aid to diagnosis.

WARMTH AND REST

There is abundant evidence from the last war that exposure to cold greatly increases the liability to shock. It would seem that this is because cold is the best known way of throwing the compensatory mechanism out of action, and especially of exhausting the adrenal glands of their adrenaline, the secretion of which, by constricting the vessels of the skin, is the normal method of conserving body temperature. It should, however, be pointed out that great care must be taken not to overheat the patient, since excessive temperature may, by dilating the superficial vessels and causing loss of fluid by sweating, actually contribute to a lowering of the blood pressure. Accurate observations on this point in regard to patients do not appear to have been made. Rest is no less important, for any muscular exercise brings about a dilatation in the muscles in which the activity takes place. Careless handling of the patient when transferring him from the operating table to a trolley may be sufficient to precipitate shock.

OXYGEN THERAPY.

From the fact that the fatal cycle of shock is essentially asphyxia the administration of oxygen might be of some benefit but, since the haemoglobin which carries the oxygen is, on passing through the lungs, normally 97 per cent. saturated and contains about 19 c.cm. of oxygen per 100 c.cm. of blood, it is a little difficult to see how benefit from giving oxygen might be

achieved. It is, however, claimed by responsible persons that if oxygen is administered by means of a good mask, such as that of Boothby, or an anti-gas mask suitably adapted, it does in fact cause considerable improvement, and may tide the patient over a critical stage. It may be that when the blood becomes concentrated it is not so saturated as normally in the lung when air is breathed, or it may be that the additional amount which becomes dissolved in the blood plasma is of value. In the present state of knowledge then oxygen should be given, but not without all the other measures also available, and too much cannot be expected from oxygen therapy.

ADJUVANT PHYSICAL TREATMENT

The use of simple measures, such as raising the foot of the bed to assist the return of the blood to the heart from the lower parts of the body, should never be ignored, nor should bandaging those parts of the body which are uninjured. This applies to the abdomen as well as to the limbs. It must be evident that if there is pressure applied to the muscles and to the abdomen, fluid is prevented from leaving the blood vessels. In animals the effect of such treatment is often dramatic, although admittedly such firm bandaging is not possible in human beings when great care must be taken to avoid ischaemia. There are those who consider that it is a disadvantage to reduce in any way the circulation through a part. It seems not unlikely that surgeons may be unduly influenced by the disastrous effects of firm bandaging of injured limbs which become grossly oedematous, but accurate observations at different pressures should be made to discover whether or not it is not possibly just sufficient to prevent the limbs holding more fluid. In shock the infiltration is generalized, and in the healthy tissues it is never so great as to be noticeable. The application of the firm abdominal binder

after delivery, or the withdrawal of fluid from the abdomen is such common practice to prevent collapse that it is almost remarkable that it is not more used in the prevention of shock.

THE USE OF VASOCONSTRICTOR DRUGS

Unfortunately no drugs are of any avail. All the drugs which in pharmaceutical doses constrict vessels, such as adrenaline and pituitary extract, affect the heart adversely or dilate the vessels of the muscles, and may make the patients worse than before. Why some vessels are constricted and others dilated is a problem, the solution of which is urgently required. There is some evidence that the shock may be the result of intense constriction of some peripheral vessels, and the tissue asphyxia produced thereby. Much more information is needed on this subject.

CONCLUSION

It is evident that the position in regard to the treatment of shock is far from satisfactory but, in spite of this, much can be done for the patient, and certainly all cases should not be treated alike. What is urgently needed is a more adequate study of cases on a large scale, and the proper recording of the effects of treatments. It is fair to say that generally facilities for such study do not exist in the average surgical ward. Not only is the suitable apparatus necessary for recording blood pressure and for making blood studies not available, but the personnel who are willing and able are absent. It would be easy to organize and train teams of semi-skilled women to make such observations. This is but part of the solution, but the sooner surgery awakens to its responsibilities the fewer will be the deaths from air-raid injuries. Let it again be repeated "A patient who has not had a vital organ injured should not die."

—The Practitioner, January 1941.

NOTICE.

Subscribers of The Medical Practitioner are requested to note their registered numbers appearing on the postal wrapper of the Journal while corresponding with the Managing Editor.

THE Medical Practitioner

Vol. XIII]

OCTOBER, 1941

[No. 1

OURSELVES.

The Medical Practitioner closed its twelfth year and is just entering the thirteenth. It is indeed a very happy coincidence that for the last five years it has been possible for us to chronicle eventful news concerning the medical profession in these columns every October, the month when The Medical Practitioner made its first appearance in 1929. The news justified the aims and objects of the journal. In October 1937 we were able to announce the good news that the Congress Government had decided to have one uniform University Standard of medical education. Along with this news we published another that Dr. P. S. Srinivasan, M.L.A., had given notice of his intention to introduce a Bill in the Madras Legislative Assembly to amend the Madras Medical Registration Act, 1914 for the purpose of making it a really democratic body. The principles enunciated by the sponsor of the Bill being very wholesome and to the same extent non-controversial, the Congress Government themselves took the responsibility of amending the Medical Act. The result has been that Madras is the first and the only province out of eleven provinces in India which can be proud of one uniform standard of medical education and of a democratic Medical Council. In October 1938 it was mentioned in

these columns that the Madras Government had decided to restrict the privilege of private practice to the full-time Government medical officers. The same month in 1939 the journal while informing its readers that the proposals of the Government in regard to medical education and the Medical Council had become facts, appealed to the official and the non-official members of the profession to co-operate with each other and make the reforms a success. In 1940 in the month of October The Medical Practitioner published the news that on 7-10-1940, the newly democratized Madras Medical Council unanimously elected the senior-most licentiate member of the Council as its Vice-President. It was also suggested at the time that the Medical Council would do well to bring about a convention to elect unanimously by rotation a licentiate, a graduate and one with British Registrable qualifications—a gesture of harmony which if respected was likely to bring homogeneity in the medical profession in spite of its heterogeneous existence.

This month in 1941 we are in a position to say that the past efforts of The Medical Practitioner to convince the Government that the Government School of Indian Medicine is a danger to the growth of Scientific Medicine

1941]

THE MEDICAL PRACTITIONER

31

and that the purpose of the Government to encourage the indigenous systems of medicine was frustrated by the School which was actually running a system of hybridism, have not been in vain.

A large number of medical associations in the Presidency did submit to the Government their views to convert the School of Indian Medicine into an institution for research and study by the practitioners of modern scientific medicine, while a few others pointed out to the Government that instead of running a separate school of indigenous systems of medicine, the study of indigenous systems might be introduced into the existing Medical Colleges. The Government decision on the subject is anxiously awaited by all concerned. In the meanwhile a real danger has arisen by the indiscreet registration of the practitioners belonging to the indigenous system who number above 20,000 as against about 6,800 registered practitioners belonging to the modern scientific system. A central board of Indian medicine was brought into existence by an administrative order of the Government which is entrusted with the work of registering practitioners belonging to the indigenous systems. They are classified as 'A' class and 'B' class; the former are those holding the L. I. M. Diploma, the latter consists of all those who are certified by Revenue Officials to be practising the indigenous system. The purpose of registration is to help the public to know who is qualified and who is not. Medical Registers for the purpose of registering qualified practitioners, have been brought into existence by statutes and it is illegal to permit anybody who is not on the statutory medical register to style himself as a registered medical practitioner as in the case of the word 'co-operative' which

can be used only by the companies or societies coming within the purview of Co-operative Societies Act. We did point out to the then Justice Government the illegality of bringing into existence the Central Board of Indian Medicine for the purpose of registering the practitioners belonging to the indigenous system. We learn that this subject is before the Madras Medical Council and hope the Council would point out to the Government about the dangers to the public by allowing the practitioners belonging to the indigenous systems especially the 'B' class amongst them to be styled as 'registered practitioners'. Apart from the dangers from outside, the scientific medical profession has its own inside troubles brought about by the administrative orders of the Government which, while recognising even 'B' class practitioners as registered practitioners, have nullified the Madras Medical Registration Act by refusing to the non-official registered practitioners the rights and privileges conferred upon them by virtue of registration in regard to medical certificates.

Such of the readers of The Medical Practitioner who have been reading the proceedings of the Madras Medical Council as published regularly in its columns from 1929 must have noticed that this subject was an item of discussion in the Council almost every year and in spite of an unanimous resolution of the Council passed at its March 1940 Session, requesting the Government that all registered practitioners should be treated alike in regard to issuing of certificates, the Government have been adamant and did not heed to give effect to the unanimous opinion of the Council. Dr. V. Rama Kamath has been as persistent in his efforts and has given notice of his intention to move the

following resolution at the October 1941 session of the Council.

"The Madras Medical Council respectfully points out to the Government that the decision of the Government that physical fitness certificates in the case of candidates for employment in certain branches of the public services should be given by Medical Officers in Government Service and that existing orders of the Government under which applicants for employment in Government Service having defective vision should produce special certificates regarding eyesight from eye-specialists in the employ of Government, are against the spirit of the Madras Medical Registration Act and that therefore no invidious distinctions should be made between Government-paid-registered practitioners and independent private practitioners in the matter of issuing certificates of whatever nature".

It is hoped that the Medical Council would pass the resolution unanimously as the old Council did last March. In case the Government do not respect the feeling of the members of the independent medical profession as represented by their representatives in the Council it may be necessary that the elected members representing the general constituency resign and seek re-election on this issue. The medical acts confer on registered practitioners certain rights and privileges and the Medical Council brought into existence by the Medical Act have disciplinary control over those who are registered. The Council has extraordinary powers to remove a practitioner's name from the Register and disqualify him from enjoying the rights and privileges of Registration. The Head of the Medical Department nor even the Government have this power. So the argument usually put forward that an erring Government Medical Officer can be suitably punished by the Government falls to the ground. We wish the Government Medical Officers realise that soon after their retirement they are as good or as bad in the eyes of the authorities as the private practitioners. In this and many other matters it is the vested interests that come in the way and prevent the authorities from

solving such vexed questions. The price and conditions for registration being the same, all registered practitioners should enjoy the benefits of registration equally. So in case the Government do not yield and are still adamant, the profession should agitate constitutionally in all possible ways till the Government treats all registered practitioners alike. It need hardly be said that The Medical Practitioner which owes its existence to its readers interested in the uplift of the medical profession in India would heartily co-operate with all those who would take up this question in right earnest.

Though The Medical Practitioner has been at times a severe critic relating to the affairs of the Medical Department, our readers must know as much as we do, that but for the frank opinions expressed in these columns of the Journal, reforms such as the introduction of uniform standard of medical education, democratisation of the Madras Medical Council, extension of the scope of honorary medical service, recognition of the grievances of the members of the profession not excluding those in service and more than anything else exposure of corrupt practices wherever they were found, would not have attracted the attention of the Madras Government and the Government would not have advocated such far-reaching reforms which have been the items of discussions in the columns of the Medical Practitioner. All this work the journal could do on account of the good wishes of its readers not excluding the officials amongst them. It is no exaggeration nor flattery when we say that we remember most gratefully so do the readers of The Medical Practitioner that when we were dragged into the dock by a Government Official in 1936 on the accusation of a libel, it is the

officials of the Medical Department who stood by the side of truth and justice and got us out of the dock.

We refer to this episode to convince our readers especially the members of the independent medical profession that they can always depend upon their brethren in service and those in service can depend upon their non-official brethren in all activities concerning the affairs of the noble medical profession if the methods and purposes of approach of one to the other are honest, truthful and for common good. The professional activities of those in the medical fraternity should always be conducive to the welfare of the public and when the public are made to feel to that effect the prosperity of the profession is guaranteed. Team work is always an ideal so long those who constitute the team are of one mind. It is less costly, more healthy, the labour being suitably distributed. The Medical Practitioner has been keeping this ideal before the profession and we trust that the leaders in the profession who are above want and who are popular will try the experiment of team work in the City of Madras and important towns. It is not a gamble; it has no risks nor does it require a big capital in the shape of money. Common good-will, comradeship and honesty is all that is required for this simple experiment.

Will at least a few leaders come forward to work out the ideal put forth by us?

Before closing we express our heartfelt gratitude to the readers of The Medical Practitioner for their patronage in the past and hope to depend upon it in future. Let them treat the subscription they have been paying as a contribution for the causes The Medical Practitioner has been espousing and not as the cost of the journal.

We, on our part, will continue to serve the profession as disinterestedly and as faithfully as we have been doing all these 12 years.

LACK OF IMAGINATION IN WAR EFFORTS.

The recognition of castes and communities in India by the Government for national purposes as distinct from religious purposes, has been a curse for the healthy growth of the people as one nation. Castes and communities existed in India and everywhere else when the British took charge of the administration of India but artificial castes were created by the Government in the scientific medical profession and such castes did not exist anywhere at the time nor do they exist now except in this all-round unfortunate country. We have been often saying in these columns that the World War is a corrective and until and unless all concerned, the nations at war and the Departments working under them correct the existing ills, wherever found, it is not likely to come to an end. Some people even go to the extent of believing that War is the wrath of God and He has created a demon in the person of Hitler who would defy the whole world till the existence of God and His powers are realised as against materialistic greatness of the creatures of God who do not mind bloodshed and destruction. People in India know that even *rakshasas* had virtues in them and they won the heart of God by *tapas* and extracted from God boons. But when boons were abused by the *rakshasas*, God incarnated Himself as a man, an animal or a combination of both and destroyed the *rakshasas* without violating the terms of the boon conferred on them. Hitler is one such *rakshasa*. God must have a purpose in creating him and till that purpose is served, Hitler will not be dead. So it is desirable that the British Government should make an inner search with the help of the mental eye and not with physical eyes what is wrong in their organisation, departments or in persons in charge of departments. Apart from

modern mechanised weapons of war there is what is called the morale in those who use these weapons and unless this latter invisible nerve force is strengthened by fair ways, the physical weapons are of little or no avail. With due regard to all concerned we should say that lack of imagination on the part of those who are in direct charge of recruitment of doctors for Emergent Military Service, is the cause of luke warm response from medical men in India. If the Britisher shakes off his racial superiority and treats medical men in this country in the way the British medical men are treated in their own country till at least the period of war, the response will be forthcoming. There is a splendid opportunity during war time to merge all castes in the medical profession into one. We learn that the General Medical Council of Great Britain has passed a decree granting recognition of medical qualifications of all practitioners wherever they are, including Germany and Italy in case they are entitled by law of their countries to practise medicine, surgery and midwifery. This recognition is said to be a temporary war-measure. Self-preservation is the principle underlying this decree as such a climb downwards was impossible during peace-times. Is this not a moral lesson taught by God through the demon, Hitler? In spite of such a decree from the pedestal of the General Medical Council to exploit which a sham All-India Council was brought into existence in this country, those that guide the destinies of this All-India Council are showing lack of imagination by not passing a similar decree in India for the purpose of recognition of all Medical Qualifications recognised by the Provincial Medical Councils. Perhaps when India turns out to be the battle-field there will be a precipitate climb downwards also in India for want of medical men in the army. The Defence Department stretched its imagination to the psychological limit of styling the I. M. D. Officers with the Licentiate Diploma as Assistant Surgeons with no increase in pay and emoluments enjoyed by the Military Assistant Surgeons. Perhaps it thought that the new title itself would serve as a stimulus for recruitment. At

the same time this Department had not the imagination that a pictorial advertisement in lay newspapers calling for applications for Commissioned Officers and I. M. D. Officers stating the pay of the former as Rs. 450 and of the latter Rs. 75 a month would scare away the Medical Licentiates in spite of the conferment of the dignified and as hollow a title, Assistant Surgeon. This ludicrous comparison relating to pay for both classes of officers was pointed by us with a warning that the display in the newspapers would retard materially the war-efforts. Later the pay of I. M. D. was shown as Rs. 125 by an artificial device adding the allowance of Rs. 50 to Rs. 75 the pay shown in the earlier displays. In the third stage of this advertisement, the Licentiates have been left out altogether from the common display. All concerned must have forgotten the psychological effect of the original display and the changes effected at different stages.

Regarding Commissioned Officers the response seems to be fairly better than for I. M. D. Officers and Madras seems to stand first so far. The initial pay of Rs. 450 offered to the former being a fair remuneration for raw graduates fresh from College, the response must be generally from young unemployed medical men. Whatever be the opinion of all Governments in India, the attraction of future employment in regular Civil or Military Cadre for those who survive the war, cannot in our opinion serve the purpose for which it is meant. The experience of promises given during the old Great War is still fresh in the minds of those who served in Military Department during the period of war, some of whom are still without employment. To add to this, the intending recruits cannot forget that the systems of Government nor the Government itself being unstable during these democratic days, no Government can be sure of their future policies. An appeal to the inherent qualities of the medical profession and very attractive pay substantially more than that given to permanent Military Medical officers with proportionate war pensions or gratuities to

those who return from war or to their dependants would be a straight and as honest an attraction especially in a country which cannot be said to be free. Before closing we wish to point out that as in politics so also in medicine the authorities have been employing the same methods of approach in summoning conferences of representatives. The castes in the medical profession are the creation of the Government and let the Governments Central as well as Provincial make up their minds first to abolish these castes. This gesture is sure to attract medical men more than all other wavering and so staggering inducements. Let the Recruitment Committees be formed not depending upon castes in the profession either at the Centre or in Provinces. Let seniority and merit be considered while fixing ranks and let the I. M. D. cadre be abolished during the period of war. Then we are sure that these correctives which are morally and ethically sound will increase the speed of recruitment both in number as well as efficiency.

We did not say anything new from what we have been dinning into the ears of the authorities ever since the war started. The opinion recently arrived at Simla after laborious methods of interviews, deputations, conferences all of which must have cost money too, that the Licentiates in I. M. D. should be started at least with the rank of Subedar was expressed last April by the Madras Provincial Subsidised Rural Medical Practitioners when they met in Conference at Madras. If this resolution was given effect to immediately, there would not have been any need for conferences and consultations. But after the lapse of time and with it events the response even to this inducement is not likely to be as good as it would have been in April last. Time and events is certainly an important factor in human psychology.

IS IT A PRINCIPLE OR AN OPPORTUNITY?

A recent notification in the Fort St. George Gazette that Lt. Col. G. R.

McRobert is to act as the Principal, Madras Medical College, in addition to his being the Superintendent, Government General Hospital, Senior Specialist in Medicine, Physician of the same hospital and Professor of Medicine, Madras Medical College must have been received by the medical profession with mixed feelings and by the Professors of the Madras Medical College with feelings of resentment mixed with disappointment.

At the same time, The Medical Practitioner is proud that the principle advocated in its columns repeatedly was given effect to by the present Government in all the three Colleges under their control which even the Congress Government did not or perhaps could not recognise on political grounds, though the then Head of the Medical Department strongly recommended the principle of combining two offices into one when an opportunity arose in Madras as was the case before Madras, along with other provinces in India, enjoyed diarchical Government and later provincial autonomy of safe guards. All the same The Medical Practitioner felt and is still feeling whether the reform is after all an opportunity. For, with the enunciation of the good principle of combined office it pointed out that the person entrusted with the combined office should be only an administrator and should neither be a Professor to teach any subject in the Colleges nor be a Physician or a Surgeon in the hospitals attached to the Colleges. The Medical Practitioner also said that under any event the person with combined responsibilities should be debarred from private practice of any denomination. While stressing all the conditions referred to above, the journal considered not only the interests of the teaching institutions but also the interests of the officer with the multifarious responsibilities of the several positions he is likely to hold to discharge which efficiently and conscientiously the particular person cannot have either the physical or the mental capacity. These conditions were imposed not at all on imaginary grounds. It was said and it is still given out that the Superintendents of three big hospitals attached

to the three Medical Colleges under the Government bore a sweet temperament at least not rebellious and who after they occupied the chairs of the Superintendents got easily disturbed even with trivial affairs. The Government also know that a young officer who was given the combined office of the Superintendent of a hospital and the principal of a college and who was allowed to be a professor and a physician broke down in health quite recently and had to take long leave for the first time in his official career. The Government did recently bifurcate the combined office he was holding. Facts based on past experience, and more than anything, the present war-conditions demanded a more cautious policy on the part of the Government for obvious reasons. It may be argued that the present arrangement is temporary. For that very reason a seniormost professor of the Medical College might have held the post of the Principal temporarily. It will not be out of place if we quote a para relating to this subject appearing in the Civil Medical List till the year 1939. We mention the year as we are told a new Civil-List has been published in a modified manner and in two volumes, one for gazetted and the other for non-gazetted officers and we do not know whether the following para appears in the new publication. The para runs thus:

"There is separate appointment of Principal, Medical College and Superintendent, General Hospital, Madras. A selected Professor of the Medical College will be the Principal of the College and the duties of the Superintendent of the General Hospital are entrusted to one of the Senior Physicians or Surgeons of the institution. A special pay of Rs. 150 per mensem is granted to each of the officers."

We cast not reflections on the present or past officers holding combined responsibilities all of them deserve the recognition bestowed by the Government for these onerous posts. We are concerned

with principles and the health of the individuals as the latter is a commodity more essential than actual merit. For, a plodding conscientious officer can make up by hard work what he is wanting in. This work is not possible even for a plodding person if he is saddled with combined responsibilities, administrative and professional, permitting him at the same time private practice even as a consultant. We are pleased to add that Lt. Col. McRobert has all the necessary qualifications for the responsibilities thrust on him by the Government. We would reiterate our suggestion that whoever holds the combined office, the Principal, Medical College and Superintendent, Government General Hospital should be in charge of only administration of both these institutions and be paid a substantially higher salary for loss of private income. The appropriate name for these combined posts would be, Dean, Madras Medical College and Government General Hospital. Half-hearted reforms are more dangerous than no reforms.

To CURE INFANTS'

CONSTIPATION

Narzome Sugar is the choice remedy. It simply educates the bowels to act of itself. **NARZOME SUGAR** whips up the actions of the liver and the bowels the secretions of which are an essential factor in expelling the bowels of its contents of waste matter. Constipation of the bottle-fed infants quickly yields to the action of **NARZOME SUGAR**. It does not set up after-constipation which most other evacuants do. Thorough, but mild in its action **NARZOME SUGAR** is the specific remedy to combat recurrent or chronic constipation of infants. It is prescribed by doctors as an everyday nursery remedy. AT ALL CHEMISTS.

— Annas 15 A Bottle. —

NOTICE.

Subscribers of The Medical Practitioner are requested to note their registered numbers appearing on the postal wrapper of the Journal while corresponding with the Managing Editor.

Obituary.

It is with deep regret we have to announce the very sad news of the passing away of Capt. E. S. Gopalan, M.B., M.S., A.I.R.O., at the Government General Hospital, Madras, where he was an in-patient for about a month and a half, his complaint being heart trouble. Till about the month of February 1941 he was considered to be in the best of health. It is said that he had the first heart attack some day in the third week of February 1941 and ever since he was physically unfit. His social activities in which he actually plunged himself ever since he settled down in Coimbatore, did not permit him to leave that place to get himself treated in Madras which he did at a very late stage. It was perhaps destined that he should breathe his last breath in the Government General Hospital which was the place of his professional activities as an Hon. Asst. Surgeon till 1937.

Young Gopalan soon after he qualified himself for the M.B.B.S., degree of the Madras University in 1922 served as a House-Surgeon in the Government General Hospital. He had a special aptitude for Surgery and he became a Master of Surgery of the Madras University in 1937. As the Madras climate did not suit him, he settled down in Coimbatore in the middle of the year 1937 and was commanding fairly a good practice in his speciality. Though he did not take any active part in politics he was a staunch nationalist and his sincere belief was that regeneration of national life in India should begin in the villages. So he devoted his life, soon after starting work in Coimbatore, to village uplift work in right earnest and started a centre for the social uplift of the villagers at Vedappatti, a place 5 miles to the west of Coimbatore and he called the centre, the Vedappatti Health Ashramam. This was opened by Rao Saheb Dr. Y. P. Vasudeva Aiyar on 14-4-1939 and has been working with the help and co-operation of a few citizens of Coimbatore. The Ashramam has a welfare centre, a school and the villagers were given practical lessons by Capt. Gopalan on village sanitation special stress being placed on conservancy. We should say that



Capt. Gopalan devoted more time for this hobby than for his legitimate profession. Capt. Gopalan commanded popularity amongst the members of the medical profession in Coimbatore within a year of his stay in that town. In 1940 he was unanimously elected as the Secretary, Coimbatore District Medical Association. He was very keen to organise the profession in the Coimbatore District on Co-operative lines and he made strenuous efforts towards this end. Though he had not much encouragement to his efforts he was always optimistic and used to say that generally very often medical men were callous towards their own interests. He was simple in his habits, amiable in his disposition and was against caste distinctions in the medical profession. Being a progressive nationalist who believed that India's salvation was in villages he was a great sympathiser of the rural medical practitioners and was pointing out to us ways to make them independent practitioners in the real sense. As the aims and objects of life Capt. Gopalan had something common with those of The Medical Practitioner, there was mutual attraction between him and the journal and when we invited him to be our Associate, he gladly responded. Capt. Gopalan was expressing repeatedly that The Medical Practitioner had a great future and along with its primary aims and objects, its scientific section should receive greater attention. But alas! before he started his intended programme, he left us for good in the prime of life. To us his death is a personal loss and from what we knew about Capt. Gopalan's qualities of head and heart, we should say that his was a loss to the profession as well. He was a hidden gem whose value we were not destined to enjoy. The fact that we could not see him though he was in a public hospital for a month and a half inspite of our honest efforts a day or two before his death, has been keeping us in grief, the more.

May his soul rest in peace and may God give his wife and children enough strength to bear the irreparable loss is our sincere prayer.

Correspondence, Reports, Etc.

INDIAN MEDICAL ASSOCIATION.

GUNTUR DISTRICT BRANCH.

Proceedings of the Annual Meeting of the Association held on 11-10-'41 at 4-30 P.M., in the premises of The Government Headquarters Hospital, Guntur.

Secretary's Annual Report and Auditor's Report were passed unanimously and the following office-bearers were elected for the next official year.

President: Dr. K. S. Subramanyam, District Medical Officer; *Vice President:* Dr. Viriah Choudary; *Secretary:* Dr. G. V. Hanumantha Rao; *Joint Secretary:* Dr. N. Padma-

nabha Rao; *Members, Managing Committee:* (1) Dr. G. Raghavachari; (2) Dr. Mrs. Wright; (3) Dr. S. Rama Rao; (4) Dr. C. Rangaswamy Reddy; (5) Dr. T. Chithanandam; (6) Dr. Y. Hanumantha Rao.

Drs. D. Raghava Rao and G. V. Hanumantha Rao were unanimously elected as representatives to Central Association.

Drs. G. V. Hanumantha Rao, P. Veeriah Choudary and C. Ramakrishna, were elected as representatives to the Andhra Provincial Branch of the Indian Medical Association.

Drs. P. Veeriah Choudary, P. Gurumurthy and M. Rangiah were voted as Vice-Presidents of the Andhra Provincial Branch of The Indian Medical Association.

THE MADRAS PROVINCIAL SUBSIDIZED RURAL MEDICAL PRACTITIONERS' ASSOCIATION.

ANNOUNCEMENT.

The Working Committee at its meeting held in Madras on 6-9-1941 selected a panel consisting of Drs. V. Rama Kamath, M. Krishna Rao and C. Kunjunni Nair for the election of the President of the Association for the year 1942. Drs. M. Krishna Rao and C. Kunjunni Nair wish to announce to the effect that both of them have withdrawn from the panel in favour of Dr. V. Rama Kamath and have requested the Editor, The Medical Practitioner, to publish the announcement.

BENEFICIAL IN THE COMMON INFLAMMATORY DERMATOSES

Cuticura Ointment merits the attention of practitioners by reason of its marked success in relieving the intense itching of Eczema and other pruriginous eruptions. Indeed, its efficacy in this respect has long been proverbial.

For this purpose Cuticura Ointment may be usefully prescribed as an adjunct to general measures of treatment in the common affections of the skin.

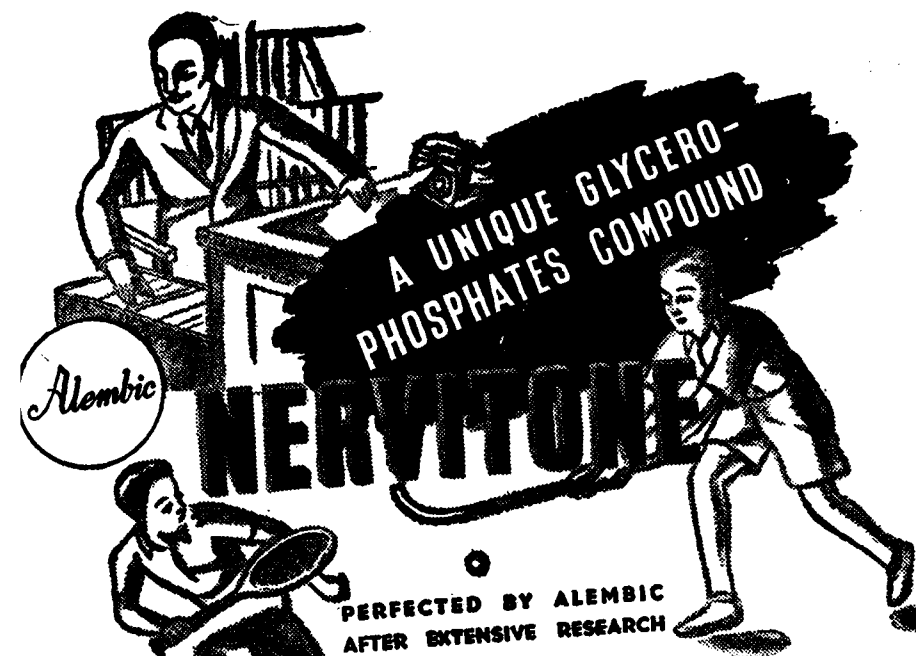
Cuticura Ointment is obtainable from pharmacists throughout the world.

Agents in India for the Manufacturers:

MULLER & PHIPPS (India) LTD., P. O. Box 773, BOMBAY.

POTTER DRUG & CHEMICAL CORPORATION

MALDEN, MASS., U.S.A.



Never before has a medicine so perfectly met all the requirements that physicians demand for the treatment of weakness and depression following or accompanying many acute and chronic diseases.

Alembic Nervitone by supplying all the elements that build up blood, bone and nerve tissues; is by far the best prescription that will definitely correct all causative factors in such conditions.

CONTAINS THE SIX MOST IMPORTANT GLYCEROPHOSPHATES:

Calcium, potassium and Sodium supply the necessary minerals and increase the phosphorous and calcium metabolism. Iron and Manganese supply the blood-forming constituents. Strychnine supplies the initial dynamic energy without subsequent depression.

INDICATIONS:

Nervous debility, Anaemia, Muscular fatigue, Nervous disorders of old age, Low vitality, Mental exhaustion and Sexual debility.

ALSO AVAILABLE WITH FORMATES

ALEMBIC CHEMICAL WORKS COMPANY, LIMITED, BARODA.

Antiphlogistine

The Denver Chemical Mfg. Co., New York.

THE PERFECT
POULTICE AND
DRESSING FOR
INFLAMMATION
AND
CONGESTION.

PHONE No: 2837

Dr. S. R. BHAT

M. B. B. S., L. D. Sc. (Calcutta)

DENTAL SURGEON

THE X-RAY & ELECTRO-THERAPEUTIC DENTAL SURGERY

(AIR CONDITIONED)

289, Esplanade, Madras. Opposite to Corporation Fruit Market.

The most well-equipped Dental Surgery with all electrical apparatus such as X-Ray, Ultra-Violet Ray, High frequency current etc.

TWO USEFUL PRESCRIPTIONS

IN CASES OF

INDIGESTION

Colic, Diarrhoea, Flatulence, Hyperacidity, Stomach Pains and Nervous Eructations and where a general stomachic with sedative action is required, are:

Alembic

MIXT. PEP SIN
BISMUTH CO.



ALEMBIC CHEMICAL WORKS CO. LTD. BANGALORE

Discovery

The synthesization of Urea opened a new chapter in the treatment of disease. Even the remarkable development of chemo-therapy will not, of course, make experienced medical men abandon approved prescriptions, though they may be old fashioned.

This note, then, will serve to remind an over-worked profession, enthusiastic as it is as regards the new means of healing, that Hall's Wine is still the accepted tonic in many cases.

HALL'S WINE



This tonic restorative is compounded from an original formula of an English doctor; it is based on a sound red wine, of full character, extra rich in iron salts, with added medicaments which greatly increase its calorific value. This tonic is assimilated without digestive activity, it improves the general metabolism and rapidly increases the haemoglobin content of the blood. A prescription of Hall's Wine has thus a dual effect:

* *physically*, it assists a weakened digestion, provides energy and tone and improves the circulation of the blood while enabling it to elaborate fresh haemoglobin.

* *in treating nervous cases*, the stimulus provided by Hall's Wine and its pleasant taste helps to convince the patient of his powers of rapid recovery.

Distributors: J. HALLEY & CO., LTD.,

P. O. Box 133,
Calcutta

P. O. Box 84,
Lahore

P. O. Box 34,
Karachi

P. O. Box 446,
Bombay

MW. 1718 A

YOUR OPPORTUNITY

TO BUY AT A WORTHWHILE SAVING.....

FOR

- Amputation
- Brain
- Dental
- Dermal
- Diagnosis
- Dissection
- Dressing
- Eye
- Ear
 - Esophageal
- Fistula
 - Gall-bladder
- Genito-urinary
 - Gynaecological
 - Hernia
- Intestinal
 - Laryngeal
 - Nasal
 - Oral
 - Obstetrical
- Orthopaedic
 - Post-mortem
 - Rectal
 - Stomach
- Tonsil
 - Tracheotomy etc.

- Low prices without quality is no economy... You only receive what you actually pay for ...

SURGICAL INSTRUMENTS

for EVERY BRANCH of SURGERY... and EXACTLY WHAT YOU WANT ...MADE OF HARDENED CARBON STEEL AND RUSTLESS STEEL.

- Remember those promises you made to yourself, sometime in your career, before deciding on your NEW INSTRUMENTS?

- That you wanted dependable Instruments? That you wanted really sharp and good-looking Instruments? That you wanted Instruments that would last, wear so well, and cost less?

- AND NOW, JUST AS THO'

WE HEARD YOUR WISHES

we present the smartest array of Instruments ever, both imported and domestic—in a variety of patterns, materials and styles. Such a lovely complement to your Hospital. Each a bearer of delightful comfort in use. Each exactly what you need for every branch of Surgery.

- We also stock a wide range HOSPITAL MERCHANDISE of every description—and our service is as fast as the mails.

**SATISFACTION IN EVERY DETAIL,
ON EVERY TRANSACTION, OR
YOUR MONEY REFUNDED...**

Economy of one-place buying of all your surgical requirements at to-day's best prices.

BOMBAY SURGICAL CO.

New Charni Road — BOMBAY 4.

EFFICIENT REPAIRING, SHARPENING AND PLATING SERVICE.

"Surgico" is geared to high action. Careful provision for upcountry orders.

Printed by Mr. M. S. Ekambaram, Manager, SOLDER & Co. (Amphill Press),
745-46, Triplicane High Road, Madras, S. E. and Published
by the Managing Editor, Dr. V. Rama Kamath, 147, Purasawalkam High Road, Vepery, Madras.

XIII No. 2

468

NOVEMBER 1941

The Medical Practitioner

A Monthly Medical Journal

EDITED BY

Dr. V. Rama Kamath,
Member, Madras Medical Council.
SCIENTIFIC SECTION.

BOARD OF ASSOCIATES

Dr. S. S. Rau, M.D.,
Editor, Bombay.

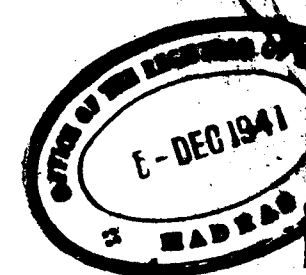
Dr. K. Narayana Murthi, M.D.,
(Medicine)

Dr. B. M. Sundaravadanam, B.A., M.B., F.R.C.S. (Eng.)
(Surgery)

Dr. M. Subramania Aiyar, B.A., M.B.C.M.,
(Midwifery & Gynaecology)

Dr. G. Joseph Gnanadickam, L.M.P.
(Ophthalmic Surgery)

Dr. T. S. Shetty, M.D.,
(Ear, Nose & Throat Surgery)



MENESTRIN CAPSULES

Doctors advise ladies dreading pregnancy to take Menestrin Capsules a week before the expected Menstrual Cycle, the time when the fertilised Ovum settles in the Uterus.

Over 5,000 doctors have tried Menestrin Capsules for the treatment of Amenorrhoea and as a Contraceptive and found them successful. It was only after getting this opinion that the Menestrin Capsules were offered for sale.

Available at all Chemists in Madras:

MANUFACTURED AT THE ORIENTAL RESEARCH LABORATORY,
Vepery, MADRAS.

Bombay Stockists: Messrs. P. M. ZAYERI & CO., Princess Street, BOMBAY.

CONTENTS.

Original Articles:

Medical Arrangements During Air Raids

By Major F. M. Collins, F.R.C.S (Eng.), I.M.S..

PAGE

43

Organisation of Medical Relief

Broadcast By Major-General H. Stott, C.I.E., O.B.E., C.St.J., M.D., F.R.C.P.,
D.P.H., K.H.S., I.M.S.

50

The Village Hospital

Broadcast By Dr. V. Rama Kamath

53

Abortion

By Dr. E. V. Kalyani, M.D.

55

Abstracts

The Andhra Medical Conference, Masulipatam

60

Editorial:

A. R. P. ORGANISATION

65

HISTORY REPEATS ITSELF

67

PROVINCIALISM IN MEDICINE

68

Correspondence, Reports Etc:

The Madras Provincial Subsidised Rural Medical Practitioners' Association

70

Government Orders

71

Statements of Receipts and Charges of the P. S. R. M. Ps' Association

72

THE RESEARCH LABORATORY

Phone: 3213

(Started in 1922)

Telegrams: "IMMUNITY"

Bacteriological, Biochemical and Pathological work carried out.

Blood, Sputum, Urine, Faeces and other pathological materials examined microscopically, bacteriologically and chemically.

Vaccines, Stock and Autogenous prepared.

Widal, Wassermann and Kahn's tests, Complement fixation test for tuberculosis etc., etc. done.

Sterile solutions for injection (e.g.) Calcium chloride, Camphor in oil Emetine, Hexamine (intravenous), Ferri Cacodylate, Quinine Bihydrochlor, etc., etc., in stock.

Provide complete Laboratory service to assist the medical profession in the diagnosis and treatment of diseases.

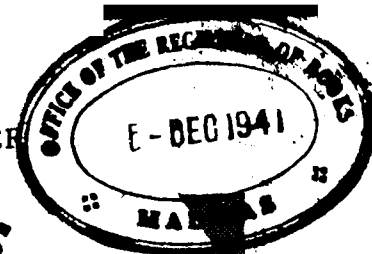
Apparatus for collecting various specimens provided and arrangements made to collect specimens at the Laboratory or at the patient's home.

DOCTORS ARE INVITED TO VISIT THE LABORATORY.

For further particulars Phone 3213 or Apply to the Manager:

23, Harris Road, Mount Road P.O., MADRAS.

THE MEDICAL PRACTITIONER



**THOUSANDS OF PHYSICIANS
PRESCRIBE DAILY -**



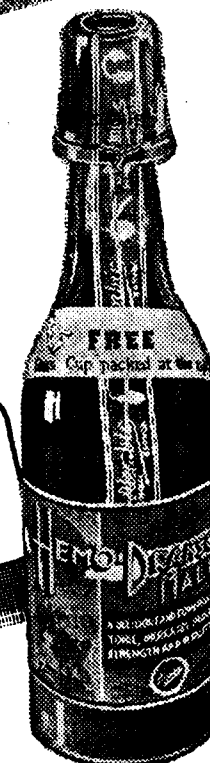
The powerful digestive tonic, ideally suited to combat all conditions of lowered vitality caused by digestive disturbances and deficient nutrition.

The vital tonic that gives new life, new energy and strength to everybody.

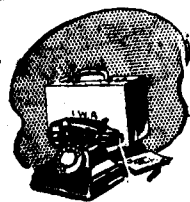
In all cases of wasting anaemias, convalescence, malnutrition, loss of weight and strength, failing appetite, debilities of all kinds, children's diseases like wasting, rickets and scurvy.

COMPOSITION:

Haemoglobin, assimilable iron, glycerophosphates, pepsin, malt and grape juice.



ALEMBIC CHEMICAL WORKS CO. LTD. Baroda



From one Doctor to another ★

The Problem of Anæmia and Debility.

One of the difficulties in the treatment of these maladies, particularly in case of long standing, is the problem of arousing any reaction in the patient. Prolonged ill-health has, consciously or otherwise, induced in the patient a feeling of hopelessness that acts as a bar to the operation of the natural will to recovery. In many such cases a gratifying response has been established by the aid of WINCARNIS. The gently stimulating properties of WINCARNIS give just sufficient fillip to the patient's system to counteract this apathetic condition, with no undesirable after-effects. The abhorrence of food due to subnormal health is dispelled by its distinctly pleasant flavour; its tonic and strength-building properties act on an organism no longer resistant and speedily restore vitality and strength.

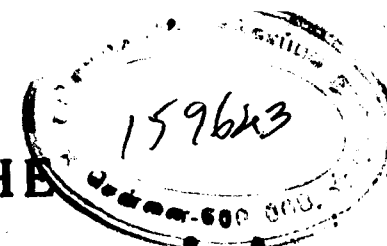
WINCARNIS is a blend of pure matured red wines combined with strengthening elements and vitamin malt extract (Vitamins A and D) properly balanced and of uniform composition. It is readily assimilable and may be safely administered in all cases when vitality is at a low ebb.

*One of a series published by the
proprietors of WINCARNIS—the tonic wine*

COLEMAN & CO. LTD., WINCARNIS WORKS, NORWICH, ENGLAND

WINCARNIS ★ over 25,000
recommendations from Medical Men

IM/W/ 121



THE Medical Practitioner

Annual Subscription { Inland Rs. 3
Foreign Rs. 4

Single Copy As. 6

Vol. XIII]

NOVEMBER, 1941 [No. 2

Original Articles

MEDICAL ARRANGEMENTS DURING AIR RAIDS

BY

MAJOR F. M. COLLINS, F.R.C.S. (Eng.), I.M.S.,

Professor of Surgery, Madras Medical College

and

Surgeon, Government General Hospital, Madras.

Medical arrangements play a very important part in A. R. P.: however much an air attack may be limited to military or industrial objectives, casualties are still bound to occur: when an air attack is indiscriminate or when it is deliberately aimed at the civil population, the number of casualties will naturally be much greater.

PREVENTION.

Medical arrangements come under 2 heads: Preventive and Curative.

Preventive arrangements are keeping the population indoors and out of the open as much as possible: shelters have to be provided for as large a proportion of the population as possible; and their use during an air raid must be encouraged by propaganda and appeals to common sense, or if necessary, insisted upon by force. The exact type of shelter that can best be provided for different sections of the population is an engineering problem for the engineering side of A. R. P.: deep strong

shelters, proof against a direct hit from a high explosive bomb can only be provided for a minority, and only for key services, the destruction of which would throw the whole A. R. P. organisation out of gear. Incidentally the hygiene of deep shelters is a public health problem of the first magnitude: overcrowding, ventilation, facilities for rest and sleep, for food and drink, lighting, sanitation, disposal of excreta and rubbish, animal parasites. So far a winter of shelter life in England has not led to any epidemics, but such good fortune may not hold. Every medical aid post, ambulance centre, gas cleansing post, hospital, etc., should, however, have a refuge room, proof against blast and splinter: medical personnel require this protection as much as any one else during the actual fall of bombs in their neighbourhood: otherwise shelter can at best be simple and domestic, but even if incomplete, every one should be under cover to avoid casualties from machine gun and shrapnel bullets, as well as from blast, splinter and flying debris. Indi-

vidual protection is provided in some respects by the steel helmet or "tin hat": all medical personnel except those whose duties are always under cover, need these.

Air Raid casualties are caused in a variety of ways: about half are severe, and the proportion of those killed outright or dying rapidly is about half the total hurt.

TYPES OF INJURY.

The lethal effect of the high explosive bomb depends on two factors, blast and splinter. *Blast* is the wave of tremendously high gas pressure, which spreads centrifugally, with diminishing velocity, from the site of fall of the bomb: the result of the enormous production of gas, at a very high temperature, as the high explosive detonates: it is succeeded by a wave of pressure, in the reserve direction, e.g., centripetally, as the air rushes in, to fill the vacuum created by the original explosion. The effect of blast is such, that any one in the open without protection of any kind, within 50 feet of a 500 lb. bomb explosion is killed instantaneously; not only killed but probably entirely disintegrated, the body being smashed into numerous fragments: the effects of blast are minimal at ground level, and a ditch of wall provides some protection: the slit trench provides a high degree of protection. Minor non-lethal blast produces peculiar injuries—concussion-like phenomenon, haemorrhages into the lungs, brain, abdominal organs, and subcutaneous tissues. A casualty may be carried along or knocked down, limbs fractured and tissues bruised by blast. Non-lethal blast injuries are now the subject of research at Home. *Splinter* is the effect of the explosion on material objects: not only the steel bomb casing itself, which is comparatively light and small in bulk, but masonry, furniture, objects like portions of trucks or motor cars, and in fact any object, which is disintegrated, blown down, and carried through the air, so as to strike a person. Splinter injuries naturally vary in severity with the size of the impinging object and its velocity, direction, point of contact, etc.: while some splinter injuries may be

trivial, many are severe multiple, lacerated wounds, with compound fractures, much damage to soft parts, vessels, nerves, and viscera, severe haemorrhages and shock: the majority are in the lower limb and many at or below the knee: if survived, they are ready foci for severe sepsis, including gas gangrene. Such wounds will require very thorough revision in the operation theatre as soon as shock is overcome, and their subsequent treatment forms a difficult surgical and nursing problem. Multiple glass-cut injuries, mostly superficial but some deep, are frequent. The possibility of some of these causing more extensive damage than appears on the surface, including joint and nerve injury, must be borne in mind. Many injuries occur from crushes, where a person is buried or trapped beneath fallen masonry, earth, machinery: apart from ordinary injuries, such as fractures, wounds, lacerations, prolonged crushing of the body and the forced maintenance of a cramped position, if not fatal, produces peculiar effects, due mainly to circulatory disturbances: the normal passage of the blood in the vessels is impeded by the weight of the fallen wall, door, girder or whatever it is. Starvation, thirst, with loss of body fluids, and lack of oxygen, contribute to a peculiar renal failure with suppression of urine and uræmia in these cases, perhaps many days after rescue. This 'crush syndrome' appears to be something quite new, and is being extensively studied at Home. Arrangements for feeding such entrapped persons by means of a length of rubber tubing, and for the administration of morphia and oxygen, should be made by the Medical Officer working with rescue units. The cases need very careful feeding and nursing, and prolonged rest after rescue.

Some injuries occur from machine gun bullets and shrapnel, and from anti-aircraft shell fragments: these are as likely to occur from one's own defences as from the enemy: They are on the whole less serious. The steel helmet affords very considerable protection from missiles dropping from above, the velocity of which is relatively low: still greater

protection from this source is assured by keeping indoors, and complete protection by remaining in a properly constructed refuge room. It is well known that in an average air raid on a city, the majority of casualties occur in people who are in the open and only a minority in those under cover.

Burns of all degrees of severity occur, both directly from the incendiary bomb and from the fires started by these. The tracer bullet causes a peculiar injury, because the bullet retained in the wound continues to smoulder, and a fourth or fifth degree burn is added to the lacerated wound of the soft parts.

Finally there may be gas casualties, both from the lung irritant group and perhaps, especially in air raids on cities, from the blister gases. In an average raid, therefore, casualties of many different types and differing in degree of severity will have to be anticipated and provided for, and arrangements made accordingly.

FIRST AID.

Casualty treatment should start from the earliest possible moment. This implies universal First Aid. All air raid wardens should have some knowledge of First Aid and should be provided with First Aid pouches of bandages, dressings, antiseptics, burn jelly; they will not be able to do much, but may be able to arrest an otherwise fatal haemorrhage, to commence treatment for shock, move the casualty in the best way and adopt the best posture for the particular injury.

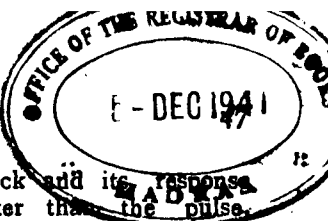
FIRST AID PARTY.

More thorough First Aid treatment is given by First Aid Parties, summoned to the incident from the A. R. P. Depots where they are stationed, by the incident warden through Control. First Aid Parties consist of four men and a leader with equipment including stretchers, blankets, splints, water bottles, shell dressings: they are transported by car driven by the leader: every group of 3 or 4 First Aid Parties works under a group leader, who should preferably be a Medi-

cal Officer: they may have to work in the dark, and should carry a hurricane lamp; they will have to aid rescue parties if necessary. The First Aid they should render is of three types, arrest of haemorrhage, splinting of fractures and treatment of shock. "Splint them where they lie": If the First Aid Parties can manage these three factors, they will have done all that can be expected of them: arrest of haemorrhage should be done preferably by direct pressure at the bleeding point: tourniquets are dangerous, they predispose to infection and gangrene, especially gas gangrene: they are not easy to apply satisfactorily: frequently these are put on too loose, so that they cause merely venous congestion; a steady ooze occurs from the wound, the net result being that more blood is lost, than without the tourniquet at all. Severe arterial haemorrhage, and not just any haemorrhage is the sole justification for a tourniquet. The dangers of leaving a tourniquet in place too long, and the precautions against this catastrophe are well known: there is indeed a feeling that a tourniquet should not be applied at all by any one other than a Medical Officer.

MOBILE MEDICAL UNIT.

The Mobile Medical Unit is more elaborate than the First Aid Party: it is under the charge of a Medical Officer and includes a nurse as well as trained First Aid personnel: it has its own specialised motor transport and equipment, including perhaps special resuscitation apparatus, trestles for stretchers, oxygen, carbon-dioxide, radiant heat cradles, kettles and crockery for producing hot sweetened tea or coffee, transfusion apparatus: it is capable of more advanced First Aid: control of haemorrhage by ligature, suture of an open sucking pneumothorax, treatment of shock by plasma transfusion, application of Thomas' splint, warmth and oxygen. The mobile unit may indeed function as an emergency operating centre, or reinforce a hospital. The early administration of morphia is of the greatest importance in First Aid, and this cannot be entrusted to a lay First Aid worker: hence the need at the scene of any



major incident, where there are many casualties, of a Medical Officer, either a group leader of First Aid Parties, or in charge of a Mobile Unit. If morphia is given at this stage, some indication must be given, either on the First Aid Card tied to the patient, or by a mark with an indelible pencil on his forehead. The Medical Officer will supervise the disposal of casualties as well as their treatment: allot transport and direct it to definite hospitals, in order of priority.

Casualties must not be transported or arrive at the hospitals "screaming with pain". Adequate splinting of fractures, or of extensive lacerations of the limbs without fracture, and adequate dosage of morphia are the important factors in preventing pain and forestalling shock.

AMBULANCES.

From the incident casualties are transported to hospital by ambulance for lying cases, and by car for sitting cases: not in the First Aid Party car, but in other cars specially detailed for the purpose. Each ambulance has a trained First Aid worker with equipment, in addition to the driver. Casualties are transported by the easiest, not necessarily the shortest route, with as little delay and disturbance as possible: shock is prevented during transport by protection, rest, warmth. During transport the attitude most suitable for the injury is maintained: Fowler position, reclining to one side, knees bent over a pillow, prone position for spinal cases. Walking cases, those only slightly injured and not shocked, are directed to the nearest First Aid Post: they make their way to the First Aid Post unaided, or aided by uninjured helpers, or at least not in the ambulances or cars, which are kept exclusively for the serious cases going to the hospitals. They should not have to walk more than $\frac{1}{2}$ of a mile.

FIRST AID POSTS.

First Aid Posts are opened in any city, in numbers sufficient to deal with minor injuries, according to the population. They should be within $1\frac{1}{2}$ miles of each other. One or more Medical Officers, Nurses, First Aid Workers, record

clerks are stationed there: adequate dressings, bandages, splints, antiseptics to deal with minor injuries, closed fractures and burns are available, as well as facilities for emergency lighting, latrines, water supply, hot sweetened drinks, staff room, refuge room and rest room. The staff does not ordinarily do any duty at an incident; they work solely in the First Aid Post itself. Serious injuries are not taken to First Aid Posts, but direct to hospital: at the former nothing more can be done for them, than can be done by the First Aid Parties. Their main function is to prevent the hospitals being overrun by minor injuries, not needing expert or difficult treatment. First Aid Posts are best located in previously existing Hospitals, Dispensaries, Welfare Centres, Surgeries, where the facilities for light, water, cooking, a trained staff, are readily available, supplemented by A. R. P. workers. The hospitals too should have First Aid Posts for minor injuries not needing detention in hospital.

AREA HOSPITALS.

Then the area hospitals. Every hospital having surgical facilities is to be used for A. R. P. casualties; other hospitals where ordinarily major operating is not done, may be opened and staffed as additional surgical centres. A definite area of the city is allotted to each hospital: ordinarily all casualties in that area are brought by ambulance or car to the chosen hospital—generally the nearest. Such a hospital is best situated away from target areas, but of course, this ideal is not always possible. The hospital must expect a sudden rush of casualties, perhaps up to 50 or 60 within half an hour, very likely without previous notice and often at night. The resources of the hospital are likely to be taxed to the utmost, and it may itself have suffered damage or casualties among its staff: the hospital, therefore, must make its preparations in advance. A definite roster of staff including surgeons, physicians, radiologists, dispensers, nurses, porters, attendants, and menials must always be on duty when air raids are expected: three batches of 8 hours each is suitable: or one batch may do duty for 24 hours. During an

actual raid, all staff without exception make their way to the hospital for duty. Definite tasks are allotted to each, which may differ from their routine duties. Additional staff, both trained and untrained, e.g., voluntary aid workers—may be detailed to the hospital: it is essential, that these be detailed to definite duties beforehand, and familiarised with what they have to do. Reserves of equipment and their replenishment are necessary: sufficient beds must be kept vacant, or the immediate discharge of not seriously ill cases, skin, eyes, venereals, etc., must be planned. Ordinary reception facilities are used, but must be enlarged. The casualties are taken straight to the reception ward from the ambulances on to wheeled stretchers and put to bed, or the stretchers are placed on trestles: a stretcher cloth with detachable poles is put on the beds to facilitate subsequent movement. Other stretchers, blankets, hot bottles, are given to the ambulances in exchange. Police arrangements to keep out relations and friends are required: also arrangements to answer enquires about casualties or persons missing. Perhaps 20% of the cases arrive dead or are so bad as to be beyond treatment and quickly die, and arrangements for disposal of dead bodies must be thought out. The others require examination and classification: a sorting Medical Officer with clerical staff to make immediate notes on the case is needed. A case sheet is opened for each casualty, in which full records are made of each stage of treatment.

SHOCK.

Most of the cases are shocked, many severely: resuscitation is essential in these cases, as experience has shown the futility and in fact, the waste of time and energy in operating on a shocked patient: he will only die. An equipped resuscitation ward is needed close to the reception ward: many of the cases are indescribably dirty with their clothes torn: nevertheless they should not be undressed yet: only the clothes cut away enough to inspect the dressings, and to see if haemorrhage is going on. The blood pressure is the most reliable single index of

the degree of shock and its response to treatment better than the pulse. Physicians will be needed to take and record half hourly blood pressure readings: detachable sphygmomanometer cuffs are a great help. No operation should be undertaken with blood pressure below 100. Mental and physical rest, warmth, blood or plasma transfusion, oxygen are the main points in shock treatment. Morphia is given in doses adequate to relieve all pain immediately: the usual $\frac{1}{2}$ grain dose has been shown to be insufficient: $\frac{3}{4}$ or 1 grain, repeated if necessary and to ensure rapid action administered intravenously, is given. Warmth is best obtained by the electric cradle. Plasma may have to be given in large quantities, up to 6 pints, if necessary; this entails a very smooth working and experienced transfusion team, with apparatus sufficient to deal with many cases at once. The provision of huge quantities of plasma, its preparations and storage is another major problem, when it is realised that the amount given to one case may represent 12 to 15 donors. Blood transfusion even with stored blood involves typing, and is too time-consuming in a rush: except in a very exsanguinated case, plasma is just as good. Saline and glucose transfusion is useless, gum transfusion of little value. Of course, bleeding must be stopped before transfusion, as it is obviously no use putting in proteins and fluid at one place, while they run out at another: tourniquets should be removed and bleeding controlled by firm pressure over massive cotton wool packs, or if necessary by ligature. First Aid splints are best left in place or only minor adjustments carried out, and the clothes are not removed during the resuscitation period. Oxygen can only be effectively given through a mask, or by a tent where the need is great. The nasal catheter is useless, and merely annoying to the patient.

OPERATION.

As shock is recovered from, the casualty is taken to the operation theatre on a smooth-running trolley: a surgeon and physician decide in consultation, when it is safe to operate, and a surgeon decides the difficult problem, of order of

urgency of the cases. In the operation theatre, there is a full team of surgeon, assistants, anaesthetist, nurses, attendants, etc.; a quick turn-over between cases is arranged: one surgeon should be able to manage two tables, consecutively, if assistants, nurses and especially dressings and instruments are duplicated, and rapid sterilisation is possible: two surgeons may with advantage work on one case with multiple injuries. One experienced anaesthetist can manage two cases, if he has an assistant to hold the head. Gas and Oxygen is the ideal anaesthetic: ether and especially chloroform are given as little as possible: local and spinal anaesthesia have no place in serious traumatic surgery, for cases just recovered from shock. Intravenous anaesthesia is suitable for short cases and for induction. The anaesthetic time is reduced to a minimum. All undressing, skin preparation, shaving, etc., is left until the patient is anaesthetised, when it can be done, very rapidly and expeditiously. The general management of severe limb injuries, (the majority of cases to be treated) is briefly very thorough cleaning with soap and water and shaving of the surrounding skin, complete revision of the wound layer by layer throughout its whole extent and depth, haemostasis with as few ligatures as possible, accurate reduction of fractures, removal of foreign bodies, saucerisation of the wound, followed by closed Plaster of Paris on the Winnett-Orr and Trueta lines, perhaps incorporating an extension wire. An orthopaedic table is almost essential. Primary suture is not done: windows are not cut: delayed primary or secondary suture is the object. Local chemotherapy, that is the application of sulphonamide and zinc perchloride carefully applied to every pocket of the wound, is an advance on the original vaseline dressing of Winnett-Orr: these drugs can be incorporated with iodoform and paraffin in gauze, in a preparation that has been called "Zisp". The only disadvantage of the closed plaster, is the possible development of spreading sepsis or gas gangrene undetected: this occurs sometimes in wounds incompletely revised or subjected to primary suture: the oxidis-

ing properties of zinc peroxide, prevent the growth of the anaerobic Clostridia: of course, anti-gas gangrene and anti-tetanic serum are given. For late cases (e.g., after 12 hours) revision is not suitable; free opening of the wound to obtain drainage is best—the operation of "debridement". Primary amputation should be avoided, if it is at all possible to save the limb. If amputation must be done (irremediable damage to the blood supply of the limb is the main indication) the guillotine operation, discredited as it has been in civil traumatic surgery, is still of the greatest value: either at the site of fracture, or at a point where a subsequent re-amputation at one of the modern sites of election, will be possible. Routine X-ray of cases before operation is not necessary: the journey to the X-ray department and exposure on the X-ray table may cause a relapse into shock. In the minority of cases where X-ray examination appears desirable, it is done in bed in the resuscitation ward, or in a theatre annex by means of a portable apparatus. Shock treatment will have to be continued in the majority in the immediate post-operative period, and a close watch kept for infection and gas gangrene. In a large hospital, special injuries, head, chest, abdomen and facio-maxillary cases are best taken over by a special surgeon, in a separate theatre, and not treated along with the limb injuries. Their treatment forms a special problem which cannot be dealt with here.

BURNS.

Burns form another special problem. Secondary traumatic shock is often very pronounced, as so much protein and fluid is lost to the body from the de-epithelialised areas: resuscitation is, therefore, the prime life-saving consideration in bad cases. Later the burnt area will require thorough cleansing, disinfection, revision, drying under anaesthesia: after that there is no agreement as to what is the best application. Tannic acid is not thought of so highly as it used to be: it cannot be used on the face: is a failure over creases and flexures, has caused gangrene of the fingers: Methyl violet or Wakeley's triple dye has partly

replaced it. The Bunyan-Standard Irrigation envelope with the use of electrolytic chlorine solution appears to be a real advance. Tannic acid is probably the best First Aid measure, in the form of a jelly, though there is a feeling that an alkaline compress is as good, and easier for semi-trained workers. Subsequent treatment is by no means standardised. In third degree burns, the aim is to obtain a granulating surface as early as possible, so that skin grafting need not be delayed.

Evacuation of cases after operation should be delayed as long as possible: rapid evacuation within 24 to 48 hours is undesirable, and in fact impossible in head, chest and abdominal injuries. Of course, if the hospital is in a vulnerable area, and if it may expect a further influx of casualties, evacuation to a hospital outside the danger zone may be inevitable.

The management of gas casualties forms a subject so complex and specialised, that no attempt is made to deal with it in this paper.

POSITION IN MADRAS.

Enough has been said to make it clear that the medical side of A.R.P. forms a large, difficult subject, full of problems for all concerned. What about Madras? In Madras, A.R.P. seems rather unreal, rather like the stage, London and other British cities had reached in early 1938. Progress is being made steadily, but slowly. There is a section of the population, who chiefly for political reasons "do not believe in A.R.P.": another larger section, who are apathetic and disinterested, for various reasons do not see why they should help: leave it to the authorities. But no authorities, no Government can protect the citizens of this city unless they themselves are prepared to co-operate and

take a hand. An increasing number of sensible and public spirited persons are helping, but their number, relative to the population, is woefully small. In Madras some 2,000 men are needed as First Aid Workers, to staff and man the First Aid Posts, Ambulances, First Aid Parties and Gas cleansing centres: barely 350 are now on the rolls. All these are Doctors or St. John Ambulance workers, and a large proportion are Government servants or Employees of the utility services and large firms. Unless some change takes place in the public outlook, it is difficult to see where the balance is to come from.

The medical arrangements in Madras are far from complete: they cannot be taken any further, unless more volunteers come forward for training and duty. The requisite number of First Aid Posts have been established and partly equipped and staffed: a number, but as yet insufficient, of ambulances have been acquired, and are in operation: but there are no men ambulance attendants: there is no one available for First Aid Parties or for work in gas cleansing centres. The three General Hospitals have made tentative arrangements for dealing with casualties, and have collected extra reserve equipment: but with their staff, inadequate as it is in peace time, it is difficult to see how an extra rush of work could be effectively taken on. Sufficient plasma to furnish the large amount necessary for the shocked cases, is certainly not available: a Blood Bank has been started by the joint efforts of the King Institute, Guindy, the Medical College and the Indian Red Cross Society, and though it is making steady progress, much plasma still needs to be collected and stored. There is work for every one: it is to be hoped that more interest and enthusiasm, for what is really merely self-help, may be worked up, before it is too late, and before this city finds itself attacked and unable to look after its wounded.

NOTICE.

Subscribers of The Medical Practitioner are requested to note their registered numbers appearing on the postal wrapper of the Journal while corresponding with the Managing Editor.

THE MEDICAL PRACTITIONER [NOVEMBER

ORGANISATION OF MEDICAL RELIEF

(IN PEACE AND WAR TIME)

BROADCAST BY

MAJOR-GENERAL H. STOTT, C.I.E., O.B.E., C.St.J., M.D., F.R.C.P.,
D.P.H., K.H.S., I.M.S.,

Surgeon-General with the Government of Madras.

ALL INDIA RADIO, MADRAS CENTRE

"The Alleviation of Human Suffering Series".

May I express what a real pleasure it is to me to be back again in Madras—for a third time? My first acquaintance with this Presidency was thirty-one years back when I took up Military duty at St. Thomas Mount. During this time I often stayed with the medical stalwarts of those days, Col. Giffard, Col. Elliot, Col. Donovan and Col. Elwes to whom Madras owes a great deal for its medical education and progress. I used to visit their hospitals and learn much of Civil Medical work from these great masters. I also re-call my association with the hospitalship Madras at the outbreak of the last war and now for a third time, I am once more in this Presidency—to learn more of its people—and I am glad of it.

When any organisation is under consideration, it is well to review, firstly, with what area, population and conditions, the organisation deals? Secondly, For what purposes, it exists? Thirdly, Through what agencies, it operates and Fourthly, In what degree are its purposes fulfilled?

In area, the Madras Presidency is some 15% larger than the British Isles and in population, is about 30% more numerous.

As regards diseases, in addition to those varieties common both to India and the British Isles, Madras is also subject to all those Tropical Infections, which are responsible for about 10% of its dead.

The organisation of Medical Relief includes five fundamental purposes.

Firstly, the most efficient medical aid to the largest population. The main problem of medical relief in India is the problem of bringing that relief to the villages, because in the villages of India, some 90% of India's 400 millions pass their lives. For this purpose, in Madras, the Rural Subsidised Medical Practitioners Scheme has been organised. There, in the villages, practitioners of the modern scientific system of medicine require succour in their ceaseless fight, not only against disease and death, but also against charlatans and quacks, and all those who trade on the superstition and ignorance of the uneducated.

A second purpose, is to provide the most scientific medical education at University standards. So also, the best practical education for nurses, midwives and compounders etc.

A third purpose, is to stimulate investigation and research; on the professional side, into such questions as the cause of disease, or more effective measures of *diagnosis* and treatment, and, on the administrative side, into such subjects, as better schemes of departmental organisation, or better plans of hospital buildings or better returns for financial grants.

A fourth purpose, is to promote the healthy growth of an independent medical profession. So also, for the development of a sound nursing profession.

A fifth purpose, is to encourage those unofficial private bodies which are working for medical relief, such as, the various Missionary Societies, the St. John Ambu-

lance Association and Brigade, the Indian Red Cross Society, the British Empire Leprosy Relief Association, and the Tuberculosis Association of India and other such bodies.

In Madras, medical organisation attempts to secure these purposes through hospitals, a Medical Profession and Service, financial grants from Government, and repeated inspections.

Let us briefly consider each of these four agencies in turn.

Dispensaries and Hospitals are spread over the whole Province. They vary in size from the smallest subsidised rural dispensary, housed perhaps in the village doctor's own humble residence up to the largest University teaching hospital, containing nearly 1,000 beds, and recognised probably amongst the foremost hospitals of the world.

In Madras, as elsewhere in India, urban medical relief for the most part is sufficient and satisfactory, but in certain rural areas, especially in the interior of districts, rural relief still requires development.

The 1,450 Government Hospitals and Dispensaries are staffed by some 1,000 male doctors, 140 lady doctors and 460 nurses. But the main volume of medical relief, *must* of necessity, fall on the Independent Medical Profession of which there are some 6,800 members on the Madras Register. This number works out at one doctor for each nine thousand of the population—the proportion in England being 1 doctor to each thousand of population. But, the basis of all medical relief, urban as well as rural, must ultimately be the general practitioner, and especially so in rural areas.

Besides Hospitals, doctors, and nurses, money also is required. For Medical Relief, the Madras Government provides over one crore of rupees per year which is expended approximately as follows: staff 50 lacs, Medicines 15 lacs, diet 19 lacs, contingencies 12 lacs, grants-in-aid 9 lacs, and apparatus 2 lacs. Besides this crore of

rupees, Government spends annually some 12½ lacs on New Hospital Buildings.

To safeguard the efficiency of the Provincial Medical Institutions, frequent inspections are made by officers of the Medical Department, by other official and non-official visitors, whilst the institutions themselves frequently have the help of advisory committees.

The last question concerning Peace Time Organisation, we shall discuss to-night, concerns, the extent of the success, attending medical relief as organised in Madras.

The success attained by our Hospitals is perhaps best shown by the really astounding figures that, during the past 30 years, the total annual in-patients have increased by no less than fivefold. The total annual out-patients have also increased nearly fourfold, so that now, no less than 24 millions of out-patients attend every year, whilst during the same period, the annual Expenditure has approximately doubled, from 52 lacs to over 100 lacs of rupees per year.

All the more important hospitals are overcrowded. Requests for admission are far more numerous than is the accommodation available. Thus many cases fail to secure admission. And this provides a constant cause of public criticism.

The main purposes and means of Provincial Medical Relief in Peace have now been considered. But in war, the military medical services must be considerably enlarged to provide for the great expansion of the Fighting Forces. Thus, the war responsibilities of civil medical departments, in supplying such wants, become of the utmost importance. They include,

I. The transfer to military duty, of the Army Medical War Reserve, maintained during peace in Civil Employ.

II. The filling of civil medical vacancies by the temporary "re-employment" of selected retired Civil Surgeons, and by the appointment of "Temporary Assistant Surgeons.

III. The Recruitment of Volunteers from Private doctors, Nurses and Medical Subordinates.

IV. Part responsibility for A. R. P. (Medical Services). Such services are voluntary, and honorary and their organisation even in skeleton outline, is a task of considerable magnitude and difficulty. The success of any effective A. R. P. scheme in reality depends on the honorary and voluntary response of the public.

V. The expansion of the St. John Ambulance Association and Brigade to provide, so far as possible, a trained personnel for A. R. P. Services, and for the Auxiliary Army Nursing Service.

VI. An organisation for dealing with possible gas casualties.

VII. Blood Transfusion for which an expert committee has been formed.

VIII. To mobilize and conserve such hospital equipment, Drugs and Medical Surgical Supplies as may be required by the military services, and can be spared by the Civil Hospitals.

IX. The Medical Examination of certain recruits.

X. To aid in the Prevention or Profiteering in medical supplies and drugs by retailers to the civil population.

XI. And lastly, but by no means least, watching the interests, as promised by Government, of those who proceed to military duty.

The Madras Medical Department has thus in peace and in war, many grave responsibilities. Of these, perhaps the most important at the moment is the provision of Doctors and of Nurses for the Army. The cause is a great one. More Doctors and Nurses for the army are urgently needed. Let every suitable doctor, and especially those of the highly valued licentiate class, come forward and apply. I firmly believe that no worthy applicant will regret his decision. He will return to his work in the Madras Presidency a better man, with better health and with a wide range of experiences and of Education, the like of which few other opportunities in life can offer him.

NOTICE.

Subscribers of The Medical Practitioner are requested to note their registered numbers appearing on the postal wrapper of the Journal while corresponding with the Managing Editor.

Antiphlogistine

The Denver Chemical Mfg. Co., New York.

THE PERFECT
POULTICE AND
DRESSING FOR
INFLAMMATION
AND
CONGESTION.

THE VILLAGE HOSPITAL.

BROADCAST BY

DR. V. RAMA KAMATH,

President, Madras Provincial Subsidized Rural Medical Practitioners' Association.

ALL-INDIA RADIO MADRAS CENTRE.

"Alleviation of Human Suffering Series".

India is a sub-continent of agricultural villages having a population of 400 millions of which 90% i.e., 360 millions live in villages. As General Stott told us in his first talk in this series, roughly speaking, India has one doctor for every 10,000 population. All of us know that qualified doctors belonging to the modern scientific system prefer to settle down in cities and towns but not in villages, for the life in a village is rough and not sufficiently remunerating. Consequently the 360 millions of people living in villages have on a rough estimation one qualified doctor for a population of 20,000. In 1924 the Madras Government conceived the idea that the best and the cheapest method of supplying medical relief to the villages, was to encourage private practitioners to settle in villages by paying them a subsidy. The Madras Government was the first in India to introduce the Subsidised Rural Medical Relief Scheme. Later, the Punjab, the United Province, Bombay, and Bengal have introduced the subsidized scheme more or less resembling the Madras Scheme. From the point of view of the subsidized practitioners the scheme has not been quite a success, but from the point of view of the villagers getting scientific medical relief, the scheme cannot be said to be a failure, and it is capable of vast improvements if the Government and the private practitioners who have settled in the villages co-operate with each other to achieve the purpose for which the scheme is primarily intended. It is the hospital in-patient treatment that popularised the benefits of modern scientific treatment in the cities and towns in India. There were and there still are "charlatans and quacks in the cities and towns, who trade on superstition and ignorance of the uneducated." Their number has been steadily going down in the urban areas on

account of the development of modern scientific medicine. But in the villages quacks and charlatans reign supreme at present. In this country, scientific medical relief was started from the top, in the towns and not from the bottom in the villages. The modern scientific system has been growing in its popularity to such an extent that the cost of medical administration which was 52 lacs some thirty years ago, has now mounted to one crore. Out of this amount only about 3 lacs are spent for rural medical relief in the shape of out-patient subsidized dispensaries.

From the statistics collected by Lt. General Sir G. G. Jolly, Director-General, Indian Medical Service, it may be said that over 66 per cent of village population migrates to city hospitals to be treated as in-patients. Basing upon this fact, the General stresses the need for not splitting medical relief as urban and rural, and places before the public an ideal organization on the chain system, whose links are to be located in the various centres of population. One end of the chain, General Jolly says, should be the general practitioner, the unit, whether in the village or towns, in the immediate contact with the family, while the other end should terminate in the central city hospitals with their exceptional facilities for diagnosis and treatment. There are at present a little over 500 subsidized dispensaries under the charge of independent medical practitioners belonging to modern scientific system of medicine. These practitioners have been contemplating to start cottage hospitals but could not do so for want of encouragement and help. As an experimental measure a few Village Hospitals may be started by the Government in convenient centres. The

Village Hospital should be located in a place at least 15 miles away from any of the existing hospitals belonging either to the Government, Local Bodies or the Missionaries. The rural practitioner to be put in charge of this hospital should be above 40 years of age and must have been in actual practice for more than 15 years. He should have had training in the special hospitals for a period of not less than 3 months, especially in obstetrics and in ophthalmic practice. Each Village Hospital should have accommodation for six beds to start with. The hospital need not be spectacular and may cost Rs. 1,000 or at the most Rs. 1,500. The capital expenditure for the hospital building and equipment should be met with from the provincial funds. The additional accommodation should depend upon the recognition of the usefulness and popularity of Village Hospital by the public who should be made to pay for the future development. The control over the village hospital is best vested in a central authority for the province. The executive control of the hospital should be in the hands of the doctor in charge who should be responsible to a central authority. The principle of payment for services received at the hospital should be rigidly insisted in case of people who are not the necessitous poor. The rural practitioner should be paid an attractive subsidy for running the Village Hospital and should be furnished with free quarters. The hospital should have a nurse (a qualified midwife to begin with), a compounder and a peon both of whom should be given training in first aids. The total running expenditure all told should be within Rs. 2,000 a year.

The village conditions are at present so bad for want of proper education and on account of the inroads of quacks and charlatans that it will be a difficult problem to work out village medical relief on co-operative lines. As in urban areas the only way to popularize scientific medical relief in villages should be the hospitals. Curative medicine usually educates people to understand the benefits of preventive medicine and the Village Hospitals would do the same in the villages which are at present hot beds of many preventable diseases such as cholera, small-pox, etc.

General Jolly's idea of not splitting medical relief as urban and rural is worth the attention of all concerned in the organization of scientific medical relief to the largest population. The chain system advocated by him, with the general practitioner as the first link of the chain and city hospitals as the final link is a splendid ideal. The best and at the same time most economic way to give effect to this idea is for the Provincial Governments to start Village Hospitals and put them in charge of rural practitioners. If this is done, the practical suggestions given expression to by General Stott for promoting healthy growth of the independent medical profession, will be carried out automatically and with it efficient medical relief to the largest population will be guaranteed. In my opinion, Madras Presidency seems to be best suited to begin the experiment of a scheme of Village Hospitals on the chain system. The subsidized Rural medical practitioners should be encouraged to work the scheme of Village Hospitals.

PHONE No: 2837

Dr. S. R. BHAT

M. B. B. S., L. D. Sc. (Calcutta)

DENTAL SURGEON

THE X-RAY & ELECTRO-THERAPEUTIC DENTAL SURGERY

(AIR CONDITIONED)

289, Esplanade, Madras. Opposite to Corporation Fruit Market.

The most well-equipped Dental Surgery with all electrical apparatus such as X-Ray, Ultra-Violet Ray, High frequency current etc.

ABORTION.

By

DR. E. V. KALYANI, M.D.

Abortion may be defined as the expulsion of foetus before the foetus is viable *i.e.*, before the 28th week of pregnancy. Expulsion of the foetus after the 28th week is premature labour. Formerly the term abortion was used in cases where the ovum was expelled before the 12th week *i.e.*, before the formation of the placenta and the term miscarriage from the 12th to the 28th week. Such distinctions are given up now, the term abortion is now being used in the technical sense. For legal purposes, the term abortion is used for the expulsion of foetus before full term.

Etiology :—The causes that bring about abortion may be divided into three groups depending upon etiological factors.

1. Faults in the development and implantation of the ovum, 2. Paternal causes, and 3. Maternal causes.

1. Very early abortions are due to unsatisfactory embedding of the zygote or an unsatisfactory condition of the zygote itself. In the early months spontaneous expulsion of the ovum is always preceded by the death of the ovum. Therefore the causes of the abortion involve in determining the causes of the death of the ovum.

The usual causes of the death of the ovum are :—diseases like syphilis in the male and the female, injury to the ovum or abnormalities of development. Investigations have proved that errors of development are present in 1/3 of all abortions and monstrosities would have resulted if pregnancy had continued. The site where the ovum implants itself should also be taken into consideration. The most favourable site for the ovum to be embedded is the upper uterine segment and the unfavourable sites are the uterine orifices near the tubal opening (angular

pregnancy) or in the neighbourhood of the internal os (placenta praevia). In the latter case the tendency for abortion is very common.

It is recognised that the preparation of the uterine endometrium and the process of implantation of the fertilized ovum are initially associated with the persistence of the corpus luteum of pregnancy. Abortion or absorption of the foetus can be induced in the experimental animal by the removal of the corpus luteum but in the human it has been shown that pregnancy can continue to term after the removal of the corpus luteum in early pregnancy. It has been suggested that in the human some other structure takes over the function of the corpus luteum. The placenta is found to function in this way. The corpus luteum is responsible for the embedding of the ovum and its nutrition in the early phase of pregnancy and later this role is taken over by the placenta. An active corpus luteum is dependent in its turn on the supply of an anterior pituitary hormone and there is evidence of the over function of the anterior pituitary in early pregnancy. A study of the hormone excretion in normal pregnancy has suggested that the critical period is round about the 90th day of gestation when the corpus luteum secretion decreases and the placenta is becoming a secondary organ. So we can understand how any imbalance of the internal secretion at this stage can bring about abortion.

2. Among paternal factors syphilis is a very common cause. The weakened condition of the spermatozoa due to debility and old age may probably account for early abortion.

3. In regard to maternal factors the common course of events in an abortion is placental haemorrhage followed by separation of the ovum, uterine contraction and expulsion of the foetus.

The haemorrhage into the decidua basalis and between the decidua and chorion causes separation of the ova. The ovum acting as a foreign body provokes uterine contractions which end in its expulsion. I shall briefly narrate the causes which produce the haemorrhages directly or indirectly under the following headings:—

(1) **TOXINS IN THE MATERNAL CIRCULATION:** The *toxæmias* of pregnancy and *chronic nephritis* are usually the causes of premature labour rather than of abortion.

In *syphilis* repeated abortions are not common. There is a prevailing idea that repeated abortions are due to syphilis. Clinical evidence shows that the sequence of events in common in syphilis is abortion in early months, abortion in later months, premature still birth, still birth at term, live-child at term with syphilitic manifestations; healthy child at term which shows syphilitic lesions later in life.

Specific fevers: Small-pox, typhoid fever, pneumonia, influenza, malaria etc., generally bring on abortion.

Metallic poisons: Lead poisoning is supposed to bring about abortion. It is a known fact that lead salts form a common ingredient in abortifacients.

(2) **DISEASES OF THE REPRODUCTIVE SYSTEM:** Backward displacement of the uterus favours congestion of the endometrium and is a common cause of abortion. Fibromyoma of the uterus, deep cervical lacerations and hypoplastic conditions of the uterus may be mentioned under the above heading.

(3) **ACCIDENTS:** Falls and heavy blows over the abdomen, repeated coitus in the early weeks of pregnancy are the usual accidents that may account for abortion.

(4) **DISEASES OF SYSTEMS OTHER THAN THE REPRODUCTIVE:** In the excretory system, chronic renal disease, in the nervous system—fright, extreme emotion; in the vascular system chronic

valvular disease of the heart are the factors which may indirectly bring about abortion.

(5) **HORMONAL IMBALANCE** especially relating to anterior pituitary and thyroid are amongst other causes which cause abortion. It is considered that the hormonal imbalance brings about habitual abortion. Inherent irritability of the uterus is supposed by some as the etiological factor in habitual abortion.

(6) **BACILLUS ABORTUS** is supposed to produce abortion in cattle in the epidemic form but in women such cases are not reported so far.

SIGNS AND SYMPTOMS OF ABORTION: The common signs and symptoms of all varieties of abortion are:—(1) Pain due to uterine contractions (2) haemorrhage and (3) dilatation of the cervix. Haemorrhage or pain may be the first symptom. Pain is less severe in the early months than in the later months. Haemorrhage may be moderate or alarming.

CLINICAL VARIETIES OF ABORTION:
(1) **Threatened Abortion:** Patient gives a history of a certain period of amenorrhoea. There is slight pain in the lower abdomen and back. Patient complains of frequent micturition and has slight bleeding. When bimanual examination is made, cervix is felt soft, uterus is also soft and enlarged, the size depending on the period of amenorrhoea. The os is generally closed or may be slightly dilated in a parous woman.

(2) **Inevitable Abortion:** The bleeding is very pronounced and the pain is severe. Vaginal examination shows the os dilated, the ovum protruding through.

(3) **Complete Abortion:** The ovum is completely expelled. This may be elicited from the history. Usually the bleeding stops after the expulsion of the foetus as the uterus goes on contracting. The os is closed and the uterus is firm and is much smaller than the period of amenorrhoea.

(4) **Incomplete Abortion:** When only a portion of the uterine contents is expelled

the abortion is incomplete. In the early weeks before the placenta is formed usually the complete ovum is expelled. But in the later weeks after the placenta is formed, the foetus is expelled and the placenta is retained in part or whole. In such cases there is pain with uterine contractions and the bleeding is continuous. A vaginal examination shows the presence of placental tissue in the uterus and the os is open. Occasionally the os is closed. In these cases it is better to dilate the cervix under anaesthesia and explore the uterus.

(5) **Cervical Abortion:** This is a condition where the whole ovum is expelled from the uterus but is retained in the cervix owing to non-dilatation of the cervical os. Bimanual examination shows the cervix as an inverted cone. There may be severe pain and bleeding.

(6) **Missed Abortion:** This is a condition met with now and then. The ovum dies but is retained within the uterus. The death of the ovum is accompanied by a slight vaginal bleeding and pain. Then the pain and the bleeding subside but the amenorrhoea persists for which the patient presents herself to the doctor. The subjective symptoms of pregnancy are absent. Breast signs are also absent. The uterus does not enlarge in size. The bleeding that occurs within the uterus forms a clot round the dead ovum. The blood clot becomes organized and the whole thing is known as *carneous mole*. A long time may elapse before the *carneous mole* is expelled, and by that time the foetus is absorbed. Bimanual examination shows that the cervix is hard unlike the soft cervix of pregnancy and the uterus is enlarged but not to the corresponding period of amenorrhoea. Asheim-Zondeck test is negative so also the result of X-ray examination.

(7) **Febrile Abortion:** Signs and symptoms of abortion exist along with temperature. The temperature may precede the abortion and may be the cause of abortion or the abortion may become septic and may be the cause of the temperature.

(8) **Therapeutic Abortion:** The field for therapeutic abortion is getting limited. Occasionally in cases of *toxæmias* of pregnancy, severe hyperemesis and in some cases of valvular diseases of the heart and in active tuberculosis, therapeutic abortion is indicated.

(9) **Criminal Abortion:** Produced with criminal intention is brought about in a number of ways. Abortifacients such as salts of lead, quinine, ergot etc. are generally used. These may lead to symptoms of poisoning, causing at times death.

Instruments such as sounds, catheters, or kutchies, needles, hairpins, etc., are generally used in criminal abortion. In addition to the causing of cervical lacerations at times leading to the perforation of the fornix, these cases are the causes of sepsis attendant with high temperature and peritonitis.

X-rays and radium are used by some professional abortionists to bring about death of the ovum.

DIFFERENTIAL DIAGNOSIS: Abortion has to be diagnosed from the following pathological conditions:

1. Normal menstruation in pregnancy.
2. Ectopic gestation.
3. Vesicular mole.
4. Functional haemorrhage.
5. Cervical polypus and myomata.
6. Cervical cancer.

Normal menstruation is possible till the 12th—14th week of pregnancy i.e., till the decidua capsularis unites with the decidua vera. This condition is differentiated by the periodicity of the bleeding. The pain is not severe. If the person is kept under observation, the uterus is found growing. It is just possible that in case of bicornuate uterus one horn may be menstruating whereas the other may continue pregnancy.

Functional haemorrhage is met with in metropathic haemorrhagia. Varying periods of amenorrhoea 6 to 18 weeks are

followed by profuse bleeding. This condition is differentiated by the absence of pain, absence of products of conception in the vaginal discharge and of the absence of uterine enlargement. Bimanual examination shows the uterus firm and not enlarged. In doubtful cases Friedman test is useful.

Cervical polypus and *erosion* may give rise to bleeding during pregnancy. Speculum examination and the continued growth of the uterus will aid in diagnosis.

Cancer of the cervix complicating pregnancy may be mistaken for abortion, on account of the presence of bleeding. An examination will never fail to reveal the condition.

The most important conditions that have to be differentiated when bleeding occurs in the first *trimester* of pregnancy are *abortion*, *ectopic gestation* and *vesicular mole*. The pain in abortion is fairly severe but in extra uterine gestation when it ruptures, the pain is very sudden and the severity is so marked that it is accompanied by giddiness and vomiting. It is one of the acute abdominal conditions. The bleeding in abortion is moderate or profuse, the nature of collapse being proportionate to the amount of bleeding. In extra uterine gestation, the external bleeding is very little or absent but the collapse is out of all proportion to the amount of external bleeding. The person is severely shocked also. Products of conception are passed in abortion whereas in extra uterine gestation the decidua uterine cast may or may not be passed. If passed, the chorionic villi will be absent. Examination of the patient in abortion shows the uterus enlarged proportionate to the period of amenorrhoea and the adnexa are normal. In extra uterine gestation there is marked tenderness and rigidity of the lower abdomen and dullness of the flanks due to the free blood in the peritoneal cavity. A tender pulsatile swelling may be made out either in the lateral fornix or in the pouch of Douglas.

In vesicular mole, the pain may be very mild. Bleeding is usually profuse the

characteristic white currant in red jelly being passed. The uterus is enlarged out of all proportion to the period of amenorrhoea. The bilateral lutein cysts may be palpated bimanually.

DIAGNOSIS OF THE DIFFERENT VARIETIES OF ABORTIONS: In *threatened abortion* pain and bleeding are slight, os closed, uterus enlarged and soft.

In *inevitable abortion*, pain and hæmorrhage are more marked. Os admits a finger. Ovum may be felt protruding through the os.

In *incomplete abortion* there is a history of the patient having passed something and there is irregular bleeding. Examination shows the os patulous and uterus bulky. Pieces of placental tissue may be felt within the uterus. In the latter case there may be continuous bleeding. Here a curettage under anaesthesia and examination of scrapings aid in the diagnosis.

Inverted cone felt in the cervix is a characteristic sign in *cervical abortion*.

In *missed abortion*, there is a history of amenorrhoea with subjective signs of pregnancy in the beginning and later amenorrhoea persists. Bimanual examination shows the uterus enlarged but does not correspond to the period of amenorrhoea. Asheim-Zondeck test and X-ray examination result will be negative.

PROGNOSIS: In cases with moderate bleeding and spontaneous expulsion of the ovum the prognosis is good. In cases where the bleeding is severe followed by collapse, the risk to life is very great unless prompt medical aid is provided. Presence of sepsis make the prognosis definitely worse, and it leads to unfavourable sequelæ as sub-involution and adenexal inflammation.

MORTALITY: Abortion plays a great part as a cause in maternal mortality. Causes of death in abortion are hæmorrhage, shock and sepsis.

TREATMENT.

Prophylaxis: In cases of patients who give a previous history of abortion,

they should be carefully examined and causes of abortion determined. Chronic inflammation of uterus and its appendages treated. If fibroids are the cause, this condition should receive suitable attention. Displacement of uterus should be corrected. Possibility of venereal infection must be found out and proper treatment should be advised. In case of syphilitic infection pregnancy should be permitted after 2 years of specific treatment. General health of the patient must receive attention and also the social habits and environment. Difficiencies of vitamin contents in food especially of vitamin E and also want of inorganic salts of calcium and iron should be met with. In fact, all measures conducive to the well-being of the patient must receive careful attention.

EXPECTANT: *Threatened abortion* calls for complete rest—general and local. $\frac{1}{2}$ grain morphia, if there be no contra-indication, or suitable doses of Tinct. opii. Bromides and uterine sedatives like Ext. Prunifolium Liquidum. Diet must be light, non-stimulating but nutritious. Bowels kept regular with laxatives if necessary. No unnecessary vaginal examination without indications. Corpus luteum hormone, 2 international units daily from the onset of symptoms until one week after pain and bleeding have ceased. Subsequently in habitual cases one I. N. unit twice weekly upto 32nd week. In cases where bleeding and pain persist the abortion is probably *inevitable*. Here the abortion may take place spontaneously. Interference is needed only in cases of profuse bleeding. Patient is prepared with an enema and vaginal douch. Vulva is shaved and prepared with antiseptic precautions under anaesthesia. If the os is dilated, and admits a finger, the ovum is expressed with the other hand over the fundus of the uterus. If not easily delivered the ovum forceps may be introduced and the ovum caught and removed. In cases where the cervix is not dilated, under anaesthesia, the cervix is dilated with Hegar dilators, the finger is then introduced and the ovum detached and removed. It is usual to flush the uterus with a

flushing curette. The danger in this operation is perforation of the uterus. Pituitrin or ergotine injections should be given for preventing hæmorrhage. Some advise injection of pituitrin $\frac{1}{2}$ c. c. at $\frac{1}{2}$ hour intervals upto 3 c. c. Other methods such as vaginal and uterine tamponage in cases where there is severe bleeding and the cervix is not easily dilatable, have been advocated by some. This should be done with great antiseptic precautions but still the danger of sepsis is great. In the Government Hospital for Women and Children in Madras, this method is very rarely used. Where cervix is rigid and rapid evacuation of the uterus is necessary abdominal or vaginal hysterotomy is the method of choice. Shock and chances of sepsis are very much less in this operation. *Therapeutic abortion* is indicated usually in toxæmias of pregnancy, and in other conditions referred to above. The best method is abdominal hysterotomy. In missed abortion, dilatation of the cervix and plugging the vagina and injections of pituitrin is all that is required. This is followed by spontaneous evacuation in a few hours. Oestrin 40,000 international units is injected intramuscularly every 8 hours for 8 days by those who adopt conservative methods in the treatment of abortion. In *febrile abortion* the temperature in connection with abortion has to be treated as any other temperature. Abortion interfered with only when there is profuse bleeding. In *septic abortion* treatment should always be conservative—rest, drainage, antiseptic douches. Some advocate evacuation. This we have found to be risky from the point of view of sepsis. Sulphanilamide therapy has completely changed the outlook of treatment of sepsis so much so that the need of operative interference is scarcely needed and to the same extent has encouraged conservative methods of treatment in combating sepsis. The treatment of *habitual abortion* is very unsatisfactory. All the same a careful history may at times guide the medical attendant to decide upon the rationale of treatment depending upon the indications arrived at from the history.

Abstracts.

THE ANDHRA MEDICAL CONFERENCE, MASULIPATAM.

Under the combined auspices of the Andhra Medical Association and the Andhra Provincial Branch of the Indian Medical Association, a conference was held on 25th and 26th October, at Masulipatam under the presidentship of Dr. D. S. Ramachandra Rao, M.A., M.D. Dr. M. Seshacharyulu, L.M. & S., Vice-President of the Kistna District Branch of the Indian Medical Association served as the Chairman, Reception Committee.

Dr. M. Seshacharyulu, welcoming the President and the delegates, observed that the medical graduate who was asked to take up a temporary commission in the war service found the conditions none too attractive and the conditions which faced the I. M. D's were humiliating and even degrading. Proceeding, he suggested that the Indian Medical School be remodelled and improved to suit the needs of the times, and the Government think a hundred times before abolishing it. He saw no reason why the rural medical practitioners should be tacked on a separate organisation outside Andhra Desa as the present organisation with its headquarters in Madras was "chiefly catering to the needs of the rural medical practitioners of the southern districts".

The President Dr. Ramachandra Rao, after thanking his friends who were responsible for his unanimous election as the President of the Conference, justified the need of an Andhra Provincial Branch of the Indian Medical Association for protecting the interests and needs of the medical profession in the province and averting handicaps and said that a provincial body would be able to deal with any situation effectively and forthwith.

Dr. Rao then dealt with the lot of the independent medical profession and said amongst other things:

"Will you pardon my saying that the last decade has really found the Inde-

pendent Medical Practitioner, so far as the allopathic system of medicine is concerned. (There have been of course the practitioners of the indigenous systems in the country from time immemorial). He is as yet a new comer, and his is a sorry plight except in some large cities. The numbers are increasing year by year, and the problem is becoming more complex than ever. The Universities are turning out graduates by the hundred every year, and somehow they have to find for themselves a place to work and to live in. There is competition everywhere, and the Medical profession is no exception to it. Perhaps the competition is intensified owing to the conditions that obtain even to-day in our country. The young practitioner has to compete not only with quacks, but also with the partially or thoroughly trained Ayurvedic and Unani Physicians. Besides, he has to reckon with his own compeers who are lucky enough to find a place in the State service. The latter have all the safe-guards of a decent fixed income, congenial conditions of work, a pension to fall back upon when the day of retirement comes, besides private practice of a very remunerative kind. Though service is service, their bed seems to be one of roses. The youthful Independent Practitioner seems to have no chance when pitted against his compeers in service. If he prides himself in being independent, often his freedom is only to choose to starve. The odds are against him all through.

But I am anxious that the young practitioner should not be carried away with the idea that the practitioner in service is necessarily his rival. The senior man or woman in charge of a hospital is generally one of experience, and the Independent Practitioner should gladly make use of him or her when occasions arise. The seniors should limit themselves to consulting practice and let the juniors do the drudgery. No one ought to grab all the available practice. Mere economic

considerations should yield to ideas of professional solidarity and brotherhood. What the law fails to do let us do as enlightened human beings, with mutual goodwill and understanding. Consideration for others is a great virtue, and he who cannot be considerate to his brother practitioner cannot be considerate to his patients. The world is wide enough for all of us if we only learn the lesson of 'to live and let live'."

Rural Medical Relief was the next topic of the Presidential address. The President said that the vast bulk of people in India live in villages and medical relief to be really helpful should go to the villages in India. In regard to the Subsidized Rural Medical Scheme working in the Madras Presidency, Dr. Rao is of opinion that "the rural practitioner is caught in the knot of political or party squabbles." He exhorted the Indian Medical Association to investigate the matter, enforce the situation and back up the practitioner who is honestly fighting the insidious influences in the villages round him. He wants the rural practitioner to take up the role of not only a sanitarian but also a specialist in some disease or other and expects that they should be content with the rural standards of life.

The President had something to say in regard to holidays to the members of the medical profession. He said,

"There is a truism which the practitioner all over the country, particularly in the rural areas is apt to forget, *i. e.*, that he is a human being, and that he is liable to physiological laws. In the eagerness to push his practice, and with the desire to be helpful he works hard, labours incessantly and discards rest and recreation. Though he may have been made of a steel frame, time and toil will have their effect on him, and sooner than later he becomes broken down in health, a physical wreck. Very few of the doctors can afford to take a holiday; they feel that they cannot leave their patients; they have hardly time to take regular physical exercise even. The inevitable

result is premature old age and early breakdown in health. More, this state of affairs seriously interferes with the efficiency of the doctor. With hard work and no mental or physical recreation the mind loses its clearness and the hand, its nimbleness. The freshness of outlook which is most essential to successful treatment suffers considerably.

In Europe, particularly in England, these untoward results are prevented by the practitioners systematically arranging work along with rest and recreation. Even the busiest practitioners either in the cities or rural areas manage to get away for the afternoons in the week and two weeks, once or twice in the year. They are thus able to maintain their health and efficiency. But how can they leave their patients you may ask concernedly?

The answer is simple—they leave a *locum tenens* when they take a long holiday. But when they get away for an afternoon or so, they ask the neighbouring doctor to look and confide amongst the medical men and women, and they are able to manage it wonderfully. Many impossible things are made possible by trust and co-operation. I trust we shall be able to make a beginning in that direction at this Conference."

Continuing Dr. Ramachandra Rao pointed out that there is a tendency in the medical profession for truth to be divorced from the practice of medical science with the idea that the more one can deceive people, the clever he was considered to be. He warned the practitioners that secrecy usually brought ruin under modern conditions and the practitioners were expected to be above board. He summed up this part of his topic by saying,

"We must be true to our profession, true to our patients and true to our comrades, besides being true to ourselves."

Dr. Rao had something to say in regard to curriculum of studies in the medical colleges. He stressed the need of introducing a course of studies in psychotherapy.

Recruitment to Emergency War Service was the last theme dwelt by the President. He said that in spite of political difference between the largest political party in the country and the British Government, medical men should be realistic and not dreamers and volunteer for war service without hesitation. At the same time he said that the State should not make any invidious distinction between one service or other and between one colour or the other.

In conclusion the President said that health and longevity of the mother-land added also to her wealth, and the medical men served the mother-land as truly and as nobly as the statesman and the soldier.

RESOLUTIONS.

The conference passed resolutions urging the Andhra University and the Government to take steps to see that the L. M. & S. degree also of the Andhra Universities was included in Schedule (A) of the Indian Medical Council.

It also urged the Madras Government to maintain an equitable proportion of Andhra medical graduates in recruiting Civil Assistant Surgeons, and urged the Andhra University to institute a post graduate course of lectures in psychology in relation to health and diseases, to introduce a scheme of regular medical inspection and attendance in all colleges affiliated to the University and to institute post graduate diplomas in special subjects, like D. O. M. S., D. L. O., etc., for the benefit of the practitioners.

The conference urged that preference should be given to honorary medical officers in making new appointments under Government.

A sub-committee consisting of Drs. M. Seshacharyulu, M. V. Krishnarao and G. V. Hanumantharao was appointed to organise an Andhra Provincial Rural Medical Practitioner's Association. The Andhra Medical Association was requested to amalgamate with the provincial branch of the Indian Medical Association. The Government were requested to pass orders that all registered practitioners, whether of Allopathy or Indian medicine, should not be styled alike,

some suitable distinction being made to avoid confusion and retaining the name registered medical practitioner only for those registered under the Madras Medical Registration Act, 1914.

The conference urged the Government to increase admissions in the Andhra Medical College from 50 to 100 or reserve 50 seats for Andhra students in the Medical College in the City of Madras, to convert the School of Indian Medicine in Madras into a Post Graduate Research Institution on the lines of the School of Tropical Medicine in Calcutta, urged the Academic Council of the Andhra University to permit L. M. & S. graduates to attend M. D. and M. S. examinations without any college attendance, to grant recognition to the Andhra Medical Association, and demanded that only the traditional Ayurveda, Siddha and Unani systems be taught in the Madras School of Indian Medicine.

The conference also suggested that Medical employees of Local Boards and independent practitioners when drafted into military service be given the same emoluments as Government doctors of the same standing and qualifications, and that L. M. Ps' present and past be styled D. M. S. irrespective of other considerations.

TO CURE INFANTS'

CONSTIPATION

Narzome Sugar is the choice remedy. It simply educates the bowels to act of itself. **NARZOME SUGAR** whips up the actions of the liver and the bowels the secretions of which are an essential factor in expelling the bowels of its contents of waste matter. Constipation of the bottle-fed infants quickly yields to the action of **NARZOME SUGAR**. It does not set up after-constipation which most other evacuants do. Thorough, but mild in its action **NARZOME SUGAR** is the specific remedy to combat recurrent or chronic constipation of infants. It is prescribed by doctors as an everyday nursery remedy. AT ALL CHEMISTS.

— **ANAS 15 A Bottle.** —

NOTICE.

Subscribers of The Medical Practitioner are requested to note their registered numbers appearing on the postal wrapper of the Journal while corresponding with the Managing Editor.

BENEFICIAL IN THE COMMON INFLAMMATORY DERMATOSES

Cuticura Ointment merits the attention of practitioners by reason of its marked success in relieving the intense itching of Eczema and other pruriginous eruptions. Indeed, its efficacy in this respect has long been proverbial.

For this purpose Cuticura Ointment may be usefully prescribed as an adjunct to general measures of treatment in the common affections of the skin.

Cuticura Ointment is obtainable from pharmacists throughout the world.

Agents in India for the Manufacturers:

MULLER & PHIPPS (India) LTD., P. O. Box 773, BOMBAY.

POTTER DRUG & CHEMICAL CORPORATION
MALDEN, MASS., U.S.A.

THE MEDICAL BULLETIN

Back Bay View, New Queen's Road, BOMBAY 4.

PUBLISHED FORTNIGHTLY,

A Clinical Journal for the General Practitioner.

Doctors in small towns and remote villages do not possess circulating libraries nor are they able to collect series of Journals. To carry out the medical work efficiently it is necessary that every doctor should keep in touch with the developments in Medicine, Surgery and Obstetrics which are forging ahead so rapidly.

The Medical Bulletin helps you to do this.

It contains articles, proceedings of Medical Societies, Obstetrical Societies, and abstracts of current medical literature gathered from various journals of the West and of India.

The annual subscription is only Rs. 5 for 24 issues.

Write for a sample copy to-day.

JOURNAL OF THE INDIAN MEDICAL ASSOCIATION

EDITED BY

SIR NILRATAN SINGAR, KT., M.A., M.D., D.C.L. etc.,

With the help of A Strong All-India Editorial Board

The Official Monthly Publication of the Indian Medical Association.

FEATURES. 1. Original Articles. 2. Case-Reports. 3. Society Proceedings. 4. Valuable abstracts from leading medical journals from all over the World.

PUBLISHED ON THE FIRST DAY OF THE MONTH

Annual Subscription: **Rs. 6. Post free.**

Free to Members of the Indian Medical Association.

AN EXCELLENT MEDIUM FOR ADVERTISEMENT

For particulars, write to: **SECRETARY,**

SAMAYAYA MANSIONS,

1-A, Hogg Street, Calcutta.

prevent the entry of the enemy into India, it cannot be said that India is invulnerable both by air or sea route and a practitioner not connected with A. R. P. organisation may at any time be called upon to attend to the wounded not as public patients—so to say—but as private patients. He will have little or no time to think of treatment. The patient's condition may be so serious as to require immediate attention. So it is worth his while to know all about war Medicine and Surgery especially the air-war. We expect that Major Collins' article will stimulate a sense of responsibility in the members of the Medical Profession.

Madras is a city of distances. Its dense population is scattered in distant areas, some are close to the city hospitals and others are away from them. There are only three Government Hospitals for general medical relief and it is likely that even special hospitals must be suitably equipped to receive air-raid casualties for major injuries requiring the attention of skilful surgeons. At the same time there should be units for the treatment of minor injuries which may be attended to by general practitioners, so that the hospitals may not be crowded with patients who can be attended to outside the hospitals. In addition there should be parties to run to the spot where a bomb has fallen to pick up the wounded and take them either to the hospitals or to the general practitioners who can attend to minor injuries. Even the ambulance party should be under the charge of a medical man as at times, lay-men trained in the first-aid will not be able to adopt prompt treatment for shock and haemorrhage, either of them or both might cause death suddenly before they could be attended to at reaching the First Aid Post or the Hospital. In fact, a medical man is the most essential and useful acquisition in the air-raid organization. Next to him come all the rest in the order of their usefulness.

Madras is the third biggest city in India having a population, according to the last census 7,70,000 scattered on an area, 12 miles long, 3 to 4 miles wide. The total length of roads is nearly 500 miles.

It is a very fortunate circumstance that Madras City can boast of one doctor for a population of 1,000 on a rough calculation, though India does not have one qualified doctor for a population of 10,000 in urban areas and one for 20,000 in rural areas. So there will be available in Madras one doctor for every one mile length of road which may have houses with an approximate population of 1,000.

There is no dearth of qualified doctors for the A. R. P. work in Madras, but there seems to be want of imagination on the part of those who are in charge of medical arrangements for A. R. P. work. There is so far only one paid medical man at the Head of the A. R. P. medical organisation. He is chosen by the Surgeon-General from the Department. The first choice fell on a junior Assistant-Surgeon in the Government General Hospital. His M. S. qualification was perhaps the criterion of choice. They say he had to take leave and another more senior Assistant-Surgeon with the M. B. B. S. qualification was the second officer of choice. The fact that the junior officer after the expiry of his leave preferred to return to the General Hospital and the M. B. B. S. the more senior Assistant-Surgeon was retained at the Office of the Surgeon-General for A. R. P. work, makes us presume that the master of surgery did not like the A. R. P. work or the A. R. P. work could not accommodate him. We now learn that the senior M. B. B. S. Assistant-Surgeon is to be replaced, if not already replaced, by a more senior officer with the L. M. & S. qualification. The new Surgeon-General is in office for about 9 months. So his choice has to depend upon office files. The Personal Assistant to the Surgeon-General is an officer who spent major portion of his official career, if not all, in the moffusil before he came to Madras. He might have no opportunity of knowing about war service much less war work. He too has to depend upon records in the office available to him to put the names for required posts before his Chief. The result of all this is frequent changes once perhaps every 3 months of the officer in charge of Medical Arrangements for Air-Raids, on

whose shoulders rests the entire responsibility of medical and surgical aid during air-raids. We mean no disrespect to the civil doctors when we say that the Medical Officer in command of A. R. P. should be a war veteran of amiable civil disposition, healthy, and strong. Above all, he should be one who is able to command respect amongst the independent practitioners. If one such is not available in Madras, the Government would do well to import one from outside, who has practical knowledge of A. R. P. work. Under this officer there should be at least three full-time officers, second in command preferably those having experience of war service, but above the present military age. The City may be divided into three ranges, North, Central, and South. These four officers should be in charge of training for A. R. P. work. We are told there is need for 31 First-Aid Posts. The officers second-in-command should be in direct charge of 10 such posts. We also learn that about 160 First-Aid Ambulance Units are needed for the City; all these Units should be in charge of medical men. It is possible to get this number from amongst general practitioners, who should receive training from the A. R. P. officers. They should be in reserve, ready for duty when called upon and when actually engaged in A. R. P. work should be paid suitably for the hours or for the day they work. We understand there is a need of at least 60 doctors to be in charge of First-Aid Posts. These also should be paid for the actual work done by them during air-raids.

We repeat our opinion that the lethargy and disinterestedness on the part of the medical public, rightly complained of by Major Collins, is due to want of imagination on the part of those in charge of medical arrangements of A. R. P. work. We suggest to the Surgeon-General to summon a meeting of the members of the medical-profession requesting the Adviser to His Excellency the Governor who is in charge of A. R. P. work to preside over the meeting. The Surgeon-General's personal appeal to the profession will certainly have the desired effect and such a

meeting will to a great extent bridge the gulf of difference between the officials and independent medical men and will eventually encourage recruitment for Emergency War Service without the wasteful and unethical methods now employed for the purpose.

HISTORY REPEATS ITSELF.

Exactly two years ago there was an occasion for us to comment on the aims and objects underlying the regulations of the Madras University relating to the teaching appointments in the Medical Colleges in Madras when two honoraries in the Government General Hospital and a junior specialist in midwifery and gynaecology attached to the Government Hospital for Women and Children, were debarred from giving clinical instructions to the medical students working in these two hospitals on the plea that they had not four years' practice to their credit after they qualified themselves for the higher degree demanded by the University for holding the particular teaching posts. Amongst other things we said in these columns last November, ".....what all the University does, should be in public interest and not in academic interest nor in the interests of individuals". Earlier in May 1939 we said in regard to the same subject that the University took care to include in the regulations, qualifications possessed by the Professors teaching the subjects at the time. For example, one of the qualifications prescribed for the Professor of Ophthalmology was M.D. Nowhere in India or in Great Britain there was not at the time nor there is even now a specialist qualifications as M.D. in Ophthalmology. Evidently, the University in 1937 did not like to wound the feelings or prestige of the then Professor of Ophthalmology who was Doctor of Medicine and Bachelor of Obstetrics. Recently, due to the sudden death of the Professor of Pathology in the Madras Medical College, a vacancy accrued and an Asst.-Surgeon, a M.D. in Medicine is made to act as the Professor. The Madras University as per the regulation passed by this body in October 1937

demands that the Professor of Pathology should possess the M. D. or Ph.D. degree in Pathology. It now transpires that the Board of Studies recently passed a resolution recommending to the Syndicate that the Professor of Pathology need not be a M.D. in Pathology as demanded by the regulations of 1937. What is the need for this summersault when there are two officers in the Provincial Medical Service satisfying the conditions demanded by the existing regulations of the Madras University? Both of them are senior to the acting incumbent and are in the Civil-Surgeon cadre. One of the two who is an M.D. in Pathology, is about to retire. He was also the Professor of Pathology in the Madras Medical College for some years. It may be argued that he is to retire soon. Why not give him an extension as was done by the Government in the case of a Professor of Anatomy in the same College and a Psychiatrist in the Mental Hospital? What is the need to promote a junior officer who in the natural course of events cannot aspire to this post? The appointment looks more glaring for another reason. The other officer in the Provincial Service referred to above is a D.Sc. in Pathology which degree he earned at the Edinburgh University with distinction and the latter University awarded him a gold medal as a token of his distinguished merit. He is decorated with yet another gold medal in recognition of his work in Tropical Pathology. In 1939 he was elected as a Fellow of Royal College of Physicians in England. We are surprised how and why the Madras Government forgot their old ambition to establish an Institute of Pathology in the Madras Medical College? For this purpose a few years ago they went to the extent of importing a Ph.D. from outside to occupy the place of the Professor of Pathology in the Madras Medical College discarding the claims of two Civil Surgeons who have been till then serving as Professors of Pathology, having been in the Pathology Department the major portion of their official career. The Ph.D. later used his professorial chair as a stepping stone for a more lucrative job. We wonder if the new

Surgeon-General, a renowned pathologist himself, knows about the ambitious scheme planned by his old colleague and predecessor at the Lucknow University, General Sprawson during whose regime as the Surgeon-General with the Government of Madras it was contemplated to have an Institute of Pathology in Madras. It is a pity the Government lost sight of this opportunity when they have in the Provincial Service an officer with the highest possible qualifications in Pathology. It is just probable that this officer will be attracted by other institutions in India even outside India, and the Madras Medical Service will be the poorer to lose him. Incidentally we might mention that the Andhra University which does not so far demand rigid regulations of the type in vogue at the Madras University is likely to accommodate an Andhra M. D. in the person of the acting incumbent at the Madras Medical College for whose sake neither the Madras University nor the Madras Government need go out of the way. If in spite of what all we have said, the University modifies its old regulations, it may look as if the University or the Madras Medical College exists for individuals.

PROVINCIALISM IN MEDICINE.

A perusal of the extracts of the proceedings of the Andhra Medical Conference which was held in Masulipatam last month indicates the turn of events in this Presidency for disruption of harmonious unity of the medical fraternity to a dangerous extent. The elders in the medical profession in Bengal conceived the idea of an united medical fraternity for all India in 1918 consistent with the political ideal placed before the country by that late lamented English lady Dr. Besant under whose presidency the Indian National Congress met in Calcutta that year. For this purpose an all-India Conference was summoned in Calcutta under the leadership of Dr. Rao of Bombay. Later, with rather a retarded pace, all-India Conferences were held in different Provinces till at last it was possible to establish an all-India Medical Association in 1928 and

since then the Indian Medical Association has been making reasonably rapid strides and there are branches of this Association all over the country including several branches in this Presidency. Unfortunately the leaders at the helm of this all-India organization in their zeal to add strength to the association or perhaps for want of zeal in the provinces, committed an initial mistake in not establishing Provincial Branches itself, with the result that at least in the Madras Province, which is notoriously growing trees yielding apples of discord, two Provincial branches have sprung up, with their own individual history of creation. Such a creation was the subject of comments in these columns a few months ago. The one, the older branch, is called the Andhra Provincial Branch of which the first President was an Andhra I. M. S. officer. The other branch was cradled before the parentage was established and its name, the South Indian Provincial Branch is a misnomer so long there is the other Andhra Branch which has an independent existence of its own. This latter branch has been protesting against the name adopted by its step-sister Branch which term we have attributed depending upon the feelings now existing between the two branches. The fact that the founder President of the South Indian Branch is also an Andhra on the linguistic basis, makes the rivalry more ludicrous. The High Command of the Indian Medical Association has not been so far able to settle the dispute between the two branches. In the meanwhile cock and bull stories are invented and given expression to publicly by unscrupulous people with the sole object of disrupting the progress of smooth sailing organizations, one such being the Madras Provincial Subsidized Rural Medical Practitioners' Association which was an unknown commodity till the year 1937 inspite of its existence from the year 1925. The good, healthy and harmonious work turned out by this Association these few years, recognised and appreciated by the Provincial Government, instead of being encouraged, is looked upon with jealousy and attempts are being made to wean away the Branches in the Ceded Districts from the Provincial Rural Practitioners'

Association. One such attempt was made by the founder of the Andhra Provincial Branch of the Indian Medical Association in 1940 who being the District Medical Officer having direct official control over the subsidized practitioners, was able to put into the mouths of a few of them a resolution of no confidence in the President of the Association. Not being satisfied with the work of destruction attempted by a District Medical Officer the Vice-President of the Kistna District Branch took advantage of his position, as the Chairman of the Reception Committee of the last Andhra Medical Conference and made a most uncharitable and unjustifiable insinuation that the Madras Provincial Subsidized Association is "chiefly catering to the needs of the rural medical practitioners of the southern districts." Nobody can quarrel with the ambitious Andhras for establishing a separate Andhra Province, much less The Medical Practitioner which is concerned only in the uplift of the medical profession wherever it is and the interests of all the medical men, whatever language they may talk are safe in its columns, for the Editor is neither a Tamilian nor one whose mother tongue is Telugu, Malayalam or Kanarese. His language is akin to Hindi, which the Indian National Congress has now adopted with the sole purpose of uniting India, though in the past, the Congress wished to divide India into linguistic provinces. Let not those who want to divide this Province, for whatever purposes, use the methods adopted by the Muslim league leader for establishing Pakistan which is condemned by all right-thinking Indians interested in getting Home Rule for this country. In the meanwhile we would suggest to the chairman, Reception Committee of the Andhra Conference to read and re-read the following sentences appearing in the Presidential Address:

"The man of medicine is shrouded in mystery, and his doings and behaviour are supposed to be beyond the ken of ordinary men and women. Truth is divorced from practice. The more one can deceive people the clever he is considered to be. But fortunately times are changing and it has come to be realised that the medical man, too, should be above board in his dealings with his patients, compeers and the public."

Correspondence, Reports, Etc.

The Madras Provincial Subsidised Rural Medical Practitioners' Association.

COIMBATORE cum NILGIRIS BRANCH.
Proceedings of Meeting.

The 9th General Body Meeting of the branch was held at Coimbatore on 20-9-41 at 2 P.M. in the District Medical Association under the presidency of Dr. C. V. Damodaram, Vellacoil.

1. Resolved to request the President and the Working Committee Members to be good enough to grant District Branch Quota as before and to see that it is not withheld as it is imperative to carry on the ordinary routine branch business meetings, etc., which will be affected for want of finance. The branch agrees to the annual subscription of Rs. 6 inclusive of the P. Conference Subscription.

2. Resolved that Dr. N. S. Mukunda Rao, present Secretary to continue in office for a further term for 1942 also.

3. Resolved that Dr. T. G. Rajagopal, be elected as Joint Secretary in the place of Dr. Dawson on other duties and that he be requested to take up charge immediately and to continue for 1942 also.

4. Resolved that Dr. V. Rama Kamath be elected as President of the Association for the year 1942.

As all members were of unanimous opinion regarding Dr. V. R. Kamath to be the President of the Association for 1942, the names of other nominees of Working Committee were not put to vote.

5. The Accounts of the Branch were duly checked and found correct and as such were approved by members.

6. Resolved to thank Secretary of the District Medical Association for kindly lending the premises of their Association for the convening of the Branch Meeting.

BELLARY DISTRICT BRANCH.

Proceedings dated 2-11-1941.

1. Resolved unanimously to re-elect Dr. M. Krishna Rao of Thambrahalli and Dr. C. T. Krishnamoorthy Rao of Narayanadevarakeri, to be the Secretary-Treasurer and Joint Secretary-Treasurer for the year 1942.

2. Resolved to re-elect Dr. V. Rama Kamath to be the President of the Parent Association for a further period of one year.

3. Resolved to request the President, District Board, Bellary, to give effect to the Government recommendation regarding the increase of allotment for the medicines for each dispensary by 15% on account of the increase in the prices of drugs on account of War. A sum of Rs. 410 instead of Rs. 360 is required for each dispensary, so that the amount of drugs may not be curtailed to the detriment of the poor patients.

4. Resolved to request the District Health Officer, Bellary to supply 1000 pills of Quinine Sulphate to each rural dispensary for free distribution to cases of Malaria attending the dispensary as there is increase in the incidence of Malaria last year and this year.

5. This meeting of the district branch expresses its regret for the fact that many members do not evince interest in the yearly meetings of the association and requests such of the members to cooperate with the office-bearers in the activities of the association and request the non-members to enrol themselves as members of the Parent Association by paying the annual subscription of Rs. 6.

MADURA DISTRICT BRANCH.

The ordinary meeting of the District Branch was held in the Government Hospital, Madura, on 8-11-41 at 4 P.M.

PROCEEDINGS.

1. The minutes of the last meeting were read by the secretary and approved.

2. Resolved that Dr. R. Ramavisvanathan shall continue to be the Secretary-Treasurer for 1942.

(b) That Dr. C. K. Balakrishna Menon be the Joint Secretary-Treasurer for 1942.

Then Dr. R. Ramavisvanathan read a paper on a few interesting cases treated by Sulphanilamide preparations. The D. M. O. showed much interest and said amongst other things that the village practitioners must try to learn the vernacular names of the common diseases, for then only the village folk will have confidence. He also had a personal talk with the R. M. P's present and told them that they are at liberty to come at any time to him and represent their grievances and asked them to keep the secretary in touch with all details.

With a vote of thanks to the District Medical Officer the meeting terminated at 6 P.M.

SALEM DISTRICT BRANCH.

Proceedings conducted through Post.

Resolutions relating to the election of the President of the Association and the election of the office-bearers for the Salem District Branch were circulated by post by the Secretary-Treasurer. The replies received from the members were scrutinized on 20-11-1941 and the following are the resolutions passed by the members:—

1. Dr. V. Rama Kamath unanimously and wholeheartedly elected as the President for the ensuing year 1942.

2. Dr. R. S. Kothandaraman, L.M.P., Medical Officer, Thammampatti, has been unanimously elected as the Secretary-Treasurer.

3. Dr. P. S. Rajagopalan, Berur, has been elected by majority of votes as Joint-Secretary.

BOMBAY MEDICAL COUNCIL.

The Executive Committee of the Bombay Medical Council has administered a warning to the following medical practitioners registered with this Council:—

Dr. Homi A. Choksey, M.B.B.S. (Bom.), M.R.C.P. (Edin.), Bombay, and Dr. Krishnalal G. Das, M.B.B.S. (Bom.), D.O.M.S. (Lond.), D.O. (Oxon.), Bombay, to be more careful in future and strictly conform to the provisions of clause 23 of Section II of the Code of Medical Ethics adopted by the Council for notifying change of address.

Dr. Vishwanath B. Patil, Karachi, and Dr. Jaiwant D. Patil, L.C.P.S. (Bom.), Karachi, that they should be more careful in future and strictly conform to the provisions of clause (h) of rule 1 of Section II of the Code of Medical Ethics and Clause 5 of the Warning Notice relating to association with unqualified persons.

GOVERNMENT OF MADRAS.
EDUCATION AND PUBLIC HEALTH
DEPARTMENT.
(PUBLIC HEALTH)

G. O. No. 3935 11th September 1941.

Medical certificates—Practitioners in Indian Medicine—Acceptance—G. O. No. 1556, P.H., dated 28th April 1939—Communicated.

READ—the following paper:—
From the Surgeon-General, dated 12th August 1941, Ref. No. 31,684-1-B/41-1.
Order No. 3935, P.H., dated 11th September 1941.

It has been brought to the notice of Government that a practitioner in Indian Medicine, who has obtained the diploma of L. I. M. but who is not in the employ of the Government, granted a medical certificate to a Government servant and that it was accepted by a Government official. Such acceptance is unauthorized.

2. G. O. No. 1556, P.H., dated 28th April 1939, in which the existing position regarding the acceptance of medical certificates granted by practitioners of Indian Medicine is explained is communicated to the authorities concerned for information.

(By order of His Excellency the Governor)
V. V. SUBRAMANIAM,
Deputy Secretary to Government.

G. O. No. 4327, 7th October 1941.

Medical institutions—Rural—Medical practitioners deputed for festival duty—Payment of allowance—Clause (9) of the form of agreement—Amended.

READ—the following paper:—
From the President, the Madras Provincial Subsidised Rural Medical Practitioners' Association, Madras, dated 13th August 1941, R.M. P.-G. No. 332.

Order—No. 4327, P.H., dated 7th October 1941.

With reference to the orders issued in paragraph (10) of G.O. No. 2405, P.H., dated 9th June 1941, the following amendment shall be made to the form of agreement prescribed for rural medical practitioners in G.O. No. 3510, P.H., dated 4th October 1938, as subsequently amended:—

AMENDMENT.

In the form of agreement in appendix I to the said Government Order, for the expression 'a daily allowance of Rs. 5' occurring in clause (9), the expression 'a daily allowance of Rs. 3' shall be substituted.

(By order of His Excellency the Governor)

V. V. SUBRAMANIAM,
Deputy Secretary to Government.

G. O. No. 4389, 10th October 1941.

Medical institutions—Rural (subsidised)—Medical practitioners—Termination of agreement—Clause (13)—Amended.

READ—the following papers:—
From the Principal, Indian Medical School, dated 19th May 1941, R. C. No. 8431P/2-41.

From the President, District Board, Tanjore, dated 22nd May 1941 and 18th June 1941, R.C. No. 12273/41.

From the Surgeon-General dated 13th September 1941, R. No. 28690-H.

Order—No. 4389, P.H., dated 10th October 1941.

A case has been brought to notice in which a rural medical practitioner resigned his appointment without giving the District Board concerned six months' notice as provided in clause (13) of the form of agreement. The President of the District Board accepted the resignation tendered by the practitioner waiving the prescribed period of notice on the ground that no penal provision exists in the form of agreement requiring the practitioner to stay in the village till his relief.

2. According to paragraph 2 of G.O. No. 1154, P.H., dated 14th June 1927, a rural medical practitioner who has been removed or dismissed or has resigned his appointment should not be permitted to take away with him the balance of the drugs remaining at the time unused in the dispensary. The drugs become the property of his successor, if one is appointed, or of the local board concerned if the dispensary is closed. These orders have not been embodied in the form of agreement.

3. With a view to remedy these defects, the following amendment shall be made to the form of agreement prescribed for rural medical practitioners in G.O. No. 3510, P.H., dated 4th October 1938, as subsequently amended:—

AMENDMENT.

In the form of agreement in Appendix I to the said Government Order, to clause (13), the following paragraph shall be added, namely:—

"On the termination of this agreement the practitioner shall hand over the drugs, outfit for the midwife and other equipment, if any, belonging to the dispensary to his successor or to any other person authorized by the President to receive them."

(By order of His Excellency the Governor)

E. C. WOOD,
Secretary to Government.

G. O. No. 4586, 25th October 1941.

Medical institutions—Rural (Subsidized)—Prohibition of free treatment to the rich—Putting up in the notice board—Suggestion—Accepted.

READ—the following paper :—

From the Surgeon-General, dated 7th October 1941, No. 17379-17 H.

Order—No. 4586, P.H., dated 24th October 1941.

According to clause (3) of the form of agreement appended to G. O. No. 3510, P.H., dated 4th October 1938, a rural medical practitioner should display in a conspicuous place on the outside of the dispensary a notice in the language of the district to the effect that it is the rural dispensary of the board. The Surgeon-General has suggested that rural medical practitioners may also be permitted to publish in the notice board the fact that persons whose income exceeds Rs. 30 a month are required to pay fees for the treatment they get and that clause (3) of the form of agreement may accordingly be amended. The Government do not consider it necessary to alter the agreement for the purpose. They, however, request all local bodies to adopt the suggestion of the Surgeon-General.

(By order of His Excellency the Governor)

V. V. SUBRAHMANYAM,
Deputy Secretary to Government.

Statement of Receipts and Charges of The Madras Provincial Subsidized Rural Medical Practitioners' Association for the month of September 1941.

RECEIPTS.	Rs. A. P.	CHARGES.	Rs. A. P.
Cash balance on 1-9-'41 ...	679 6 6	Postage ...	3 2 3
Subscription from members (including V. P. P. charges) ...	11 11 0	Stationery ...	1 5 1
Advance received from the President to meet expenses up to 30-9-'41 ...	65 0 0	Pay to clerk for June, July and August. Amount credited to The Medical Practitioner ...	45 0 0
		Contribution to Malabar District Branch ...	5 7 0
		Cash balance: ...	31 8 0
		With Savings Bank 668 10 7	
		With Office 1 0 7	
			669 11 2
Total ...	756 1 6	Total ...	756 1 6

N. B.—Due to carelessness of the clerk a sum of Rs. 8—5—0 was not shown as the contribution to The Medical Practitioner from out of the subscriptions received so far and also a small amount of anna 1—3 towards postage was also not shown in the expenditure column. After making the corrections referred to above, the cash with the office ought to be Rs. 10—11—11 in the August Statement.

October 1941.

RECEIPTS.	Rs. A. P.	CHARGES.	Rs. A. P.
Cash Balance on 1-10-41 ...	669 11 2	Postage ...	3 3 0
Subscription from two new members ...	10 0 0	Stationery ...	0 4 9
Entrance Fee from above ...	0 8 0	Amount credited to The Medical Practitioner ...	4 0 0
Subscription from a member for the Provincial Conference ...	1 0 0	Pay to Clerk for September ...	14 5 4
Advance received from the President during the month ...	15 0 0	Cash balance: ...	
		With Savings Bank 668 10 7	
		With Office 5 11 6	
			674 6 1
Total ...	696 3 2	Total ...	696 3 2

V. RAMA KAMATH,

President.

R. S. KOTHANDARAMAN,

Treasurer.

*The Choice of
LEADING DOCTORS
for Quality & Economy*

Alembic

STERILISED INJECTIONS

Carefully prepared under rigid scientific control, Alembic Injections are remarkable for purity, uniform quality, prompt action and strict accuracy of the ingredients. They are properly sterilised and well preserved in neutral glass ampoules to avoid deterioration of contents and offered at extremely moderate prices.

A few of the Many

Atropine Sulphate
Cacodylates of Iron and Sodium with Strychnine
Caffeine-Sodio Benzozate
Caffeine-Sodio Salicylate
Calcium Chloride
Calcium Gluconate
Camphor in Oil
Ephedrine Hydrochloride
Ephedrine Hydrochloride
Iron Arsenite with Strychnine
Iron Cacodylate
Morphine & Atropine
Quinine Bihydrochloride in Saccharose solution
Sodium Cacodylate
Sodium Gynocardate
Sodium Morrhuate
Sodium Salicylate
Sodium Salicylate & Iodide
Sodium Thio sulphate
Strychnine Sulphate

THE ALEMBIC CHEMICAL WORKS CO., LTD.
Baroda.

*Write for particulars
and
Therapeutic Notes*

We Feature and Highly Recomme

OUR SUPERB COLLECTION OF

== HOSPITAL REQUISITES ==

- Anaesthetic Apparatus
- Adhesive Z-O Plasters, S-R, Various sizes
- Apparatus for Blood and Urine Analysis
- Artificial Limbs, Deformity and Fracture Apparatus, Bohler and other Splints, Abdominal Belts
- Spinal Jackets, Hernia Trusses, Suspensories, Stretchers, Crutches, etc.
- Bard-Parker Knife Handles with Detachable Rib-Back Blades
- Baugmanometers and Parts, Mercurial—Lifetime
- Contraceptive Products, H-R Jelly, Diaphragms, etc.
- Electric Diagnostic Sets—May—for Eye, Ear, Nose and Throat examination
- Electro-Magnetic Machines
- Hypodermic, Exploring, Aspirating, Serum and Suture Rustless Needles
- High-pressure Sterilizers—Portable and Stationary—and Drums
- Hospital Furniture—Selected quality
- Hand Bags and Medicine Cases
- Kalmerid Surgical Sutures, D & G
- Laboratory Apparatus and Surgical Glassware
- Microscopes and Accessories—Instruments for Diagnosis
- Operating Lamps and Tables
- Oxygen Gas and Carbon Dioxide
- Personal, Baby and Hospital Weighing Scales
- Plaster of Paris Bandages and Powder
- Repairing Instruments and Appliances
- Stethoscopes and Thermometers—Latest models
- Syringes for Aspiration and Injection, Heat-proof
- Surgical Rubber Goods, Gloves, Sheetings, etc.
- Surgical Instruments in great variety for every class of Surgery
- Sick-room Utensils and Vitrified Enamelware
- Surgical and Dispensing Sundries, etc.

ORDER
FROM
ONE
SOURCE
AT
TODAY'S
BEST
PRICES

== ECONOMY PRICES ==

Our stocks represent real *savings* for you and your hospital with no sacrifice of *quality*.

It is our intention to *carry on* in these difficult times to give our customers our *usual service*.

Our Service is as Fast as the Mails.

BOMBAY SURGICAL CO.
New Charni Road.....BOMBAY 4.