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THE MISCELLANY

Managing Editor: Dr. P. A. S. RAGHAVAN

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OF INDIAN MEDICAL ASSOCIATION

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JANUARY 1948

No. 7

Announcement

Wanted a Medical Officer for the Danish Mission Hospital, Tirukoilur South Arcot District. Preference will be given to Refugee Doctors, or Lady Doctors.

For Pay and Prospects, apply to the Medical Superintendent, Danish Mission Hospital, Tirukoilur.

INDIAN MEDICAL ASSOCIATION (Madras Branch)

The following clinical meetings will be held at the Madras Medical College at 6-30 p.m. each day.

NAME	SUBJECT	DATE
1. Dr. P. Kutumbiah, M.D., M.R.C.P.	Medicine in Free India	Thursday 5th Feb. '48.
2. Dr. V. S. Subramanian, M.B., B.S., M.Sc. (Med) F.A.C.S.	'Common Ear Troubles —Their Management'	Thursday 12th Feb. '48.
3. Dr. J. Dhairyam M.D. (Psych.)	'Some Aspects of Schizophrenia'	Thursday 19th Feb. '48.

Members of the profession are cordially invited.

K. L. NARAYANA RAO,
K. RAMA RAO,
Hony. Secretaries.

We regret to announce the demise of
Dr. S. N. NEELAKANTAN, Cheyyur, Chingleput Dt.



The liver is the reservoir for the haemopoietic principle, which according to Castle and co-workers is a combination of an extrinsic factor contained in the food and an intrinsic factor contained in gastric mucosa. Certain secondary blood-forming agents are also believed to be present in the liver extract.

The therapeutic activity of liver extracts may vary widely and failures in anaemias are due to the use of inactive or deficient preparations.

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impotent to discover physical diseases over which may be erected the structure of mental malady, the former by virtue of Medical training works under no such handicap.

HYSTERIA

I often call this mental malady by the name of 'escape mechanism malady' i.e., an attempt at escape from a situation which is unpleasant an unwillingness to face facts. But it is produced unknowingly, instinctively without volition, on a subconscious plane and about which the patient is unaware. Price has said in his Text book of Medicine that none of us is immune to causes of hysteria provided they are applied forcibly enough and for long enough time. The last two wars showed how hysterical paralysis developed dramatically. Time and again I saw soldiers who had become totally blind, deaf, and mute, who were paralysed in one arm, or one leg, who had tremors and had abolition of sensations so that needles could be plunged deep into the anaesthetic parts without any pain. They had never suffered any injury, except that of sudden mental shock; e.g., seeing a comrade blown to pieces etc. The hysterical paralysis produced a condition which at once made them unfit for service in the field.

I used some methods to cure these sufferers. The deaf and mute ones were anaesthetised. When they began to recover consciousness their names and numbers were called out as on parade, and patients ordered to shout their names and numbers. In this half dazed dreamy state they obeyed and while hearing themselves speak got cured. In other words the escape manifestations lurking at subconscious levels came up into the range of consciousness. When I speak of subconscious level I do not mean some thing forgotten but mean some thing which cannot be brought into full consciousness by ordinary process of memory.

Mental shocks which produced hysteria in the field also occur in the civil life. I shall illustrate by a few cases.

(a) *Hysteria masquerading as Intestinal obstruction.*

A doctor's wife suddenly developed distension of abdomen on 26th May 1940 accompanied by vomiting. Enema produced poor result. The condition lasted for a month. In the meanwhile pituitrin, prostigmin, gynergen etc., were tried without effect. X-Ray after barium meal showed tardiness and lingering in the transverse colon. This dragged on till 20th July when the case was diagnosed as chronic intestinal obstruction and exploratory laparotomy decided. I suggested operation under spinal anaesthesia and behold no sooner 3 c. c. Ethocaine were discharged into the subarachnoid space the distension disappeared like magic and the patient was cured. What happened was that the sympathetic system which kept the condition alive was got completely paralysed and distension subsided. Going into the history, trauma was traced and remedy applied accordingly. Husband who had himself become neurotic from anxiety readily agreed. The lady admitted that husband's interference in the household duties which are the domain of woman, had dragged her into a desire to take to bed for some years so that her husband may get the opportunity of managing the show himself.

(b) *Hysteria masquerading as Oesophageal neoplasm.*

A bed ridden lady who had suffered from vomiting after food, developed anaemia and was reduced in weight to virtual skeleton, consulted me in July '47. Investigations already undertaken had been negative. Hysteria was diagnosed and patient removed from family environments and put on Weir Mitchell line of treatment. Auto suggestion augmented by Belladonna the inhibitor of vagus, was applied. The

condition receded. The trauma was traced to impotency in husband which could not be cured. Accordingly palliative measures and proper understanding of position put the patient into reasonable frame of mind. She is now living separately with the husband and no more source of gnawing anxiety.

(c) *Hysteria masquerading Cardiac disease.*

An eminent doctor at the end of his tether, brought his wife for consultation. Oppression in the chest, palpitation, dyspnoea, fatigue, giddiness were prominent symptoms. Being his second wife (1st already living) he was doting on her and would not part from her for even one day. Examination revealed no physical abnormality. Probing revealed that whenever the doctor went home late he was subjected to such excruciations. I advised the husband to send her away to her parent's home for some time. This broke the vicious circle. I was later informed that the trick had worked.

(d) *Hysteria masquerading under Bronchial asthma.*

A young girl frequently got attacks of asthma. When I saw her she had a respiration rate of 60 p.m. and a fast pulse—a very sorry picture panting for breath. Examination revealed no physical basis. Adrenalin had no effect but injection of Bellafoline succeeded partly. History revealed a frustrated mentality. A course of Bellafoline by mouth, assurance that there was nothing at all wrong and marriage set things right. She was an adopted child of an uncle, both parents having expired.

(e) *Hysteria masquerading under Skin disease.*

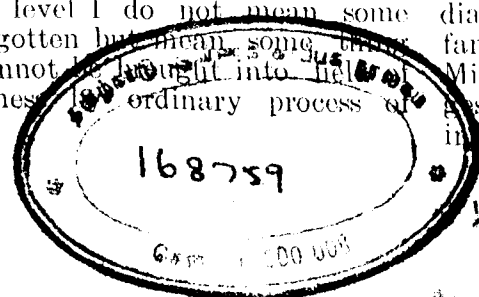
A bedridden Indian lady came under my care when I was practising in London many years ago. She was suffering from intractable boils in the ischiorectal region. Some of these developed into abscesses and had to be incised one after another. This went

on for about three months without remission in spite of treatment. Psychological field was explored. It transpired that she had wanted to live by herself in London, but the husband had fixed her with her relatives. This had gone on for a year. She had been through one winter and another winter was fast approaching. The husband was much worried. It was suggested that they should return to India. Accordingly she was carried in an invalid chair and embarked at Marseilles. No sooner had she passed Malta not only all the boils disappeared but she was able to move about actively to the surprise of every one who had observed her condition with concern at embarkation. When therefore next time they visited England, the husband rented service flats and the lady kept perfect health.

G. G. Robertson (1947) has stressed admirably, the psychological effects of skin diseases and this article will repay perusal. Critics who may still query, can recall the common reactions peculiar to some individuals who develop "goose skin" when sand paper is rubbed on the floor. If the skin can blush with shame, blanch with fear, sweat with anxiety, why can't it weep with stronger psychic trauma? Shakespeare, that great psychologist, has said in Macbeth, "Sweat thy brow, let thy two eyes start like stars from their spheres and thy hair stand on end like that of porcupine". This is autonomic sympathetic nervous action. I shall close by quoting my late teacher who used to say "when you are defeated by Eczema in a man, remember *Cherchez La femme* i.e., dis-harmonious relations with the female".

Above are just a few examples, but that Hysteria may even produce glycosuria will be apparent from what Laugdon Brown has said (1930).

Mental conflict, if it expresses itself at the psychic level of the nervous system—result is obsession or a phobia, when at sensory motor level—result is



paralysis, tremor or anaesthesia, and when it sinks deeper to the visceral level result is exophthalmic goitre, asthma or even glycosuria.

Thus the list is inexhaustible but the above cases will suffice.

Diseases simulating hysteria

I now like to quote cases which were wrongly diagnosed as hysteria with fatal consequences so that the practitioner of modern medicine should beware of pit falls.

(a) Cerebrospinal fever misdiagnosed as hysteria:—

A missionary lady doctor at Ferozepur told me that she had seen two cases of what she called fits of hysterical unconsciousness but both the women had died later. She asked me what these could be. At that time there was an epidemic of cerebrospinal fever raging and I had recently collected over 400 cases. I told her that they could only be cerebro-spinal fever. She confirmed this later.

(b) Spinal tumour misdiagnosed as hysteria:—

I had just taken over charge as Medical Specialist, Poona Area in 1912. On going round one of the Military hospitals, I saw a case of paraplegia with bed sores. The patient was very boisterous, quarrelsome and fierce looking. He had been diagnosed hysteria. Overhaul of the nervous system revealed a pathological lesion. He died before surgical intervention. Post-mortem confirmed a spinal tumour.

(c) Anxiety Neurosis.

Whereas sudden shock produces hysteria, long drawn out mental stress results in anxiety neurosis. The patient goes downhill in health, with anorexia, insomnia, bad dreams, distemper and mental confusion. Something gnaws at his heart—a subconscious activity of danger instincts. The line of demarcation between hysteria and anxiety neurosis is very narrow.

An army officer's wife was ill and she had no shelter except her husband's house. Her husband was stressed by the mental affliction of being posted away to the field. At the same time his desire to stay with his wife in a peace station brought on his supersession in service by junior officers. This persistent tension went on for a year or more. His work involved night duties which deprived him opportunities of rest, sleep and relaxation. This produced a state of anxiety neurosis. The mental break down manifested itself in insomnia, confusion, lack of concentration and planning. He was taken in hand early and recovery effected by encouraging him to look trouble fairly and squarely in the face. He arrived at a satisfactory and settled solution of the complex.

Many officers have been saved from court martial because of manifestations of violent outbursts of insubordination as a result of anxiety neurosis, by handling them correctly e.g. hypnotics so administered as to produce sleep continuously for days or even weeks until it was judged that the conditions of exhaustion had passed off. Anxiety neurosis in these cases is almost akin to physical collapse brought on by no food, no rest and no sleep.

Other patients of anxiety neurosis have to be subjected to psycho-analysis in order to draw out the hidden complex.

An interesting observation of obesity and anxiety neurosis may be aptly quoted here. A very Senior Military Officer's wife consulted me for obesity in 1945. She said that she had put on 28 lbs. weight and almost suggested her own diagnosis. She further said that she had not been Home for 12 years and that she had in the meanwhile suffered from an attack of malignant malaria and septicaemia. She finally stated that whenever she was stressed with anxiety she put on weight. I immediately arranged her passage to Australia and advised a

course of thyroid. When she returned after 3 months she had lost 28lbs. in weight. My explanation in this case was as follows:—

Eating is the most primitive sign of animal life. The first instinct of a babe is to put in mouth everything that is given to him. According to S. C. Freed (1947) psychological factors in obesity are paramount, since tendency to overeating is a strong drive for oral gratification. Therefore any condition which aggravates nervous tension will cause aggravation of this tendency. These tensions may result from several causes of nervousness. Similarly climatic and premenstrual tensions are responsible for overeating due to in-

creased nervous tensions. Treatment of these cases involves study of psychological factor. If the nervous irritability is of temporary nature barbiturates help, but if the tension is deeper, drugs like Benzodrene sulphate (5 mgm TID) before food, by reducing the level of satiability to a more normal level, succeed. Thyroid will only help the patient to lose weight when appropriate relief (as in the case of above lady) is simultaneously given. It should be carefully noted however that if the food is not controlled weight is rapidly regained after thyroid. In short education of proper eating habits and psychological training, which induces satisfactory adjustment of life through emotional maturity, is required.

References:—

Langdon Brown—Physiological Principles in treatment. P. 407, Robertson G. G. (1947), Lancet VII. P. 124.

Karamachandani P. V.	(1932 a)	Antiseptic	September	1932
Idem	(1932 b)	Ibid	October	1932
Idem	(1932 a)	Ibid	January	1933
Idem	(1933 b)	Ibid	February	1933
Idem	(1933 c)	Ibid	March	1933
Idem	(1933 d)	Ibid	June	1933

Freed S. C. 1947. J. A. M. A. Vol. 133 8th Febr. page 369.

MENACE OF MINERAL OILS

Warning from U. S.

The use of mineral oils either to relieve constipation or as a substitute for edible oil is condemned by Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*.

Research has shown, he says that three teaspoons of mineral oil a day cuts in half, the human body's ability to absorb carotene, which is converted to vitamin A. Vitamin A deficiency causes night blindness, various skin and internal disorders. What's more alarming, fine droplets of mineral oil can go through the intestinal wall and reach the liver and lymph nodes, where it is suspected they may cause dangerous lesions. Autopsies have revealed such droplets in patient's tissues.

S. T. Jan. 11. '48.

BLOOD TRANSFUSION

BY

Dr. C. S. Ramachandra Rao, M.B., B.S., D.P.H.
Provincial Blood Transfusion Officer, Madras.

Introduction

The modern history of blood transfusion began with the 20th century. In earlier days blood from animals was transfused into human subjects and untoward effects were attributed to diseases of the patients. Later on human blood was transfused by direct method with disastrous results. It is only within the last quarter of a century, ever since the discovery of blood groups by Landsteiner and the introduction of the indirect method of using citrated blood, that blood transfusion has been considered as a safe and relatively simple therapeutic procedure.

Blood Groups

In 1900 Landsteiner announced the discovery that the serum of normal human beings can agglutinate or haemolyse the red cells of certain other individuals. He found certain substances in the red blood cells which he called agglutinogens and substances in the serum he called agglutinins which together reacted to cause agglutination of the red blood cells. He made a classification of bloods into four groups.

As the interaction of the substances involved took place in bloods of all human subjects these substances were called isoagglutinogens and isoagglutinins.

On the basis of the agglutinin content of the red blood cell the groups were named 'O', 'A', 'B' and 'AB', a grouping accepted by the Health Committee of the League of Nations as the International nomenclature. The existence of the four blood groups depends upon the presence or absence in the red blood corpuscles of the isoagglutinogens A and B and in the serum of the isoagglutinins alpha and beta (or anti-A and anti-B) which are specific for A and B respectively. Isoagglutinin alpha or Anti-A present in B group serum is specific for agglutinin A found in A group red cell. Isoagglutinin beta or anti-B is present in A group serum and is specific for agglutinin B found in B group red cell.

Table showing classification and composition of Landsteiner blood groups together with Jansky's and Mosse's.

International nomenclature	Jansky numbering	Moss numbering	Red cells (isoagglutinogens)	Serum (isoagglutinins)
O	I	IV	-	Alpha and beta
A	II	II	A	Beta
B	III	III	B	Alpha
AB	IV	I	A and B	-

January 1948]

BLOOD TRANSFUSION

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Blood grouping

The practical method of determining the blood group of an individual is by testing a 1 to 2 per cent fresh suspension (in terms of blood sediment) in 4 per cent sodium citrate in normal saline with sera known to belong to groups 'A' and 'B'. If the red cells

are agglutinated by neither serum, the specimen is of 'O' group. If agglutination takes place with A serum the specimen is of 'B' group, while if agglutination takes place with B serum the specimen is of 'A' group. If agglutination takes place with both sera, the specimen is of 'AB' group. This is shown in table II.

Cell suspension of group	A serum agglutinin	B serum agglutinin	Remarks.
O	-	-	+ signifies agglutination
A	-	+	
B	+	-	
AB	+	+	- signifies no agglutination

The incompatibility between the blood groups, occurring in blood transfusion is brought about by the action of the agglutinins of the serum of the recipient upon the agglutinin of the cells of the donor. Theoretically upon this basis, individuals of 'O' group with cells containing no agglutinin can be regarded as 'universal donors'. Similarly individuals of the group 'AB' with blood serum devoid of agglutinins can be regarded as 'universal recipients'. However, there are certain practical objections in accepting a 'O' group donor as universal donor. Though his red cells are devoid of agglutinogens, his serum contains both anti-A and anti-B agglutinins which if present, in high titre, agglutinates the cells of the recipient. In the opinion of Wiener any titre over a dilution of 1 in 32 for A cells and 1 in 64 for B cells is potentially dangerous. However, he believes that dilutions upto and including 1 in 128 might be used provided the blood is injected very slowly.

With blood groups thus established and the procedures involved in blood transfusion standardised, there still occurred instances of blood incompatibility,

more or less apparently within the groups. The biochemistry of the blood was under constant study and a subdivision of the groups A and AB was suggested as early as 1911. The basis of this sub-division was the discovery that the agglutinin A was not a single substance, but exhibited two different properties in relation to serum agglutinins, bringing the sub-classification into agglutinogens A₁ and A₂ by Landsteiner and Levine in 1930. There are thus two varieties of A blood depending upon whether A agglutinin is A₁ or A₂ and two kinds of A.B. blood depending upon the class of the agglutinin content. It thus follows bloods of group A are subdivided into subgroups A₁ and A₂ and of group AB into subgroups A₁B and A₂B.

When transfusions are given to recipients of groups A and AB, it is not necessary to use blood of the appropriate subgroup except in rare cases in which the recipient has been sensitised by the previous transfusions. In actual practice reactions due to such agglutinins even in repeated transfusions appear to be rare.

Corresponding to the agglutinogens A_1 and A_2 nearly all the anti-A sera (from group B and group O donors) contain the agglutinins α and α_{11} . α reacts with all the subgroups A_1 , A_2 , A_1B , A_2B while α_{11} reacts only with A_1 and A_1B but not with A_2 and A_2B .

The more recent research in blood physiology by Landsteiner and Levine revealed two additional agglutinogens M and N found singly or in combination in bloods of all the four groups and unrelated to agglutinogens A and B. The determination of M and N groups is useful in medicolegal cases as they are inherited like A and B in accordance with definite laws. Still more recently they reported the discovery of agglutinogens P and Q. In 1940 Landsteiner and Wiener added yet another agglutinin designated as the Rh factor which is present in approximately 85 per cent of human subjects irrespective of their group.

The factor Rh is reported to be the most commonly observed cause of intra-group incompatibility though occasional instances with the other recognised irregular isoagglutinins are encountered. Isoimmunization of the Rh negative persons (the 15 per cent with no Rh factor in their blood cells) to Rh positive blood may be induced by multiple transfusions, or by pregnancy when an Rh negative woman bears an Rh positive foetus from an Rh positive father. Reactions to the transfusion of Rh positive blood in person thus sensitized are apt to be severe, even fatal, especially in women sensitized by pregnancy. For successful transfusion an Rh negative donor of compatible blood group must be selected. Rh negative woman after isoimmunization induced by either transfusion or pregnancy tend to form anti-Rh agglutinin increasingly due to the gestation of Rh positive foetus and these agglutinins cause in the infant a profound haemolytic anaemia known

as erythroblastosis foetalis. In the treatment of infants so affected Rh negative blood from a donor (or washed cells of the mother) should be selected for transfusion because anti-bodies absorbed from the mother persist for a time in the infant continuing to destroy the Rh positive cells.

Blood grouping

(a) *Tube method.* According to the technique recommended by Landstein one drop each of a 2 per cent unknown cell suspension in saline and testing serum are placed in a tube (inside diameter 7 mm.) and then allowed to stand. The reactions are usually visible within a few minutes, but the final reading should be made after one hour. A small drop of the mixture is then transferred to a glass slide by means of a loop and examined microscopically under the low power. As a control suspension of known group or cell suspension in saline should be included in each experiment. The reaction can be expedited and intensified by centrifuging the tube at about 2000 R.P.M. for three minutes. The tubes are then placed in the rack which is shaken until the negative control bloods or cells suspended in saline are evenly suspended. The reactions are read with the naked eye.

(b) *Tile method.* Diagram illustrating the technique of blood grouping cross matching bloods of donor and recipient

I. Grouping test on patient's R.B.C.

1 drop of Patient's R.B.C. & 1 drop of A Serum.	A	P.C.	1 drop of Patient's R.B.C. & 1 drop of B Serum.	B
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II. Grouping test on patient's serum.

Patient's Serum 1 drop & 1 drop of A cells.	A	P.S.	Patient's Serum 1 drop & 1 drop of B cells.	B
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III. Direct and Cross matching tests.

Donor's Cells & Patient's Serum.	Donor's Serum & Patient's Cells.
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When one or two bloods are to be examined, the test is performed by mixing the cell suspension and serum directly on glass slide. One drop of group A serum is placed on the left end of the slide and one drop of group B serum on the right end of the slide and a drop of unknown cells is mixed with each of these sera. The slide is tilted from side to side for three to five minutes after which time the drops are examined with a hand lens or under a microscope with or without a coverslip. In applying this method one must take into account the possibility of pseudo agglutination (due to rouleaux formation) since the serum is only half diluted. It however, tends to disappear on dilution with drop of saline. Cold agglutination can be prevented by warming the slide on which grouping is done. In cases of doubt, the serum of the patient can be tested with known A and B cells.

Direct matching and cross matching are done in the same manner using donor's cells and patient's serum and

donor's serum and patient's cells. The latter is quite essential especially when using O blood as universal donor to know the titre of anti A anti B agglutinin. Thus direct matching and cross matching overcome both types of incompatibility. But generally direct matching is done with the patient's serum and donor's cells.

Instances have been reported recently where the patient and donor belonged to the same group and the bloods were compatible on cross matching yet a haemolytic reaction occurred either after the first or subsequent transfusion. Fortunately these instances are rare. To detect such latent incompatibility, it may be added, particularly for patients receiving repeated transfusions that (if time permits) in addition to the usual cross matching, tests be set up in tubes and incubated at 37°C for 2 hours or longer after which time they are examined for agglutination or haemolysis.

Biological Test (Ochlecker)

This test consists in slowly injecting 10 to 20 c.c. of blood into the recipient and if after waiting for 10 to 20 minutes no reaction occurs the remainder of blood may be transfused.

Indications for Blood Transfusion.

Blood transfusion therapy entails a certain though only a slight risk. So it must not be employed without a definite indication. Unfortunately this principle is not always followed. Patients are being transfused because of general debility due to various causes, chronic nephritis, malignant hypertension, cardiac decompensation etc., with results not worth the effort or even detrimental.

The therapeutic value of blood transfusion depends upon the following main effects of this procedure.

(1) Restoration of the volume of circulating blood and therapy combating the fall of blood pressure.

- (2) Restoration of R.B.C.
 - (3) Restoration of W.B.C.
 - (4) Restoration of platelets.
 - (5) Supply of protein constituents.
 - (6) Supply of haemostatic constituents.
 - (7) Supply of immune bodies.
- Restoration of Blood volume and Blood pressure.

If more than one-third of the blood is lost in acute haemorrhage death usually results unless the blood is immediately replaced. In slower haemorrhage, on the other hand, a loss of two-thirds of the total volume of blood may be withstood.

The most spectacular results from blood transfusion are obtained in cases of haemorrhage. Sudden and profound haemorrhages that occur in peptic ulcer, typhoid fever, pulmonary tuberculosis, obstetrical emergencies, etc., can be treated by blood transfusion, which is a life-saving procedure. It is the most effective means of ensuring cessation of the haemorrhage from peptic ulcer the only exception being actual ligation of the bleeding vessel. It is usually necessary to repeat the transfusion several times especially in the older patients with sclerotic vessels. Where bleeding continues despite transfusions, blood transfusion may nevertheless be essential since it can make surgical treatment feasible.

In case of less profound and more prolonged or recurrent haemorrhage the same general remarks apply as for acute haemorrhage. In secondary anaemia resulting from chronic blood loss as in menorrhagia, haemorrhoids, ulcerative colitis, epistaxis etc., transfusion will occasionally be of value. Such patients respond well to diet and administration of adequate amounts of iron after correction of bleeding. In hospital cases it may deserve consideration that the period of convalescence can be materially shortened by giving transfusion in place of medication.

During haemorrhage, at first the blood pressure is sustained at a normal or even elevated level by widespread peripheral vaso-constriction. When there is a failure of the vaso-constriction systemic blood pressure falls. The pulse becomes feeble and rapid. When systolic pressure falls below a certain minimum level, a state of shock ensues. Since as cutting points out 'it is generally true that the patient will not ordinarily survive depression of systolic pressure below 80 mm. of mercury or of diastolic pressure below 40 mm. of mercury for longer than 1 hour'. The amount of blood required to overcome shock is large. It should be noted that blood should be given in all these emergencies without delay and in sufficient amount so as to restore the blood pressure to normal level and then to maintain the same. It is always safe to expect that a shock will ensue in a case and treat it immediately rather than to wait for the shock to develop and then begin the transfusion. Mac-fee and Buldrige feel that the prevention of shock is much more effective than skilful treatment after the shock has been established as 'it is easier to maintain the fluid balance than to restore it'.

In a haemorrhagic emergency, plasma, while inferior to whole blood, is usually more readily available and can be given quickly without grouping and cross-matching and will meet for the blood volume which is the immediate danger. The loss of erythrocytes and of oxygen carrying function can be met at a later time by transfusion of whole blood. The first pint of plasma must be given in the first 10 minutes and depending on the B.P. the succeeding pints should be given to bring up the blood pressure to 100 mm. or more of mercury and to maintain it.

In traumatic shock due to severe crushing injuries or excessive handling of the viscera during operations shock ensues even though there is little or no

haemorrhage. This is supposed to be due to liberation of histamine-like substance as a result of tissue autolysis causing increased permeability and dilatation of the capillaries. The patient 'bleeds to death into his own capillaries'. In these cases plasma transfusion does immense good.

In burns, as in traumatic shock, large quantities of blood plasma are lost into the tissues and the restoration of the plasma with its proteins becomes an urgent matter. Plasma transfusion is the most important single advance in the treatment of burns. Blood transfusion is harmful as it will further increase the viscosity of blood. Plasma is given as early and as rapidly as possible.

The use of blood transfusion before operation in order to prevent shock and to anticipate haemorrhage which may occur has acquired an important and permanent place in surgery. Such transfusions are useful in patients with low red cell count and low blood pressure.

Restoration of Red Cell.

Blood transfusion should be given in the following cases:

(a) Where there is no time to wait upon the slow action of haemopoietic remedies, or in

- (i) Severe anaemia (R.B.C. below one million) when life is in danger and blood transfusion must be given without delay. It tides the patient over the crisis and enables him to undergo the specific treatment.
- (ii) When the anaemia is not so severe but the case is complicated by an emergency requiring an operation.

(b) When haemopoietic remedies have been found ineffective as in chronic sepsis which inhibits haemopoietic system and in aplastic and allied states.

In determining the necessity for blood transfusion much reliance must not be placed on the red cell count alone. Even if the red cell count is above one million per cm. if there is no satisfactory response to intensive treatment, i.e., reticulocyte count 5 per cent or more, blood transfusion is indicated.

In all these cases of anaemia only fresh blood should be used. Stored blood of more than five days old is not of much use. The donor must be Kahn negative or the blood must be stored for at least three days in the refrigerator by which time the spirochaetes die and the blood is no longer infective. The donor must be free from malaria.

It must be mentioned that in anaemic patients even a mild reaction may have serious consequences. Owing to anaemia the myocardium is enfeebled though their blood volume is normal. They are therefore very liable to failure from overloading the heart which may be caused by (a) too rapid rate of administration or (b) introduction of too large a volume of blood. Marriott and Kekwick (1940) stated that in every case of transfusion the volume of blood introduced and the rate of transfusion are of primary importance. In the treatment of chronic anaemias, small transfusions 300 to 400 c.c. repeated if necessary give better results than a single large transfusion. If however the anaemia is complicated by some emergency requiring surgical operation or obstetrical delivery, the patient may be transfused with a large volume of blood by the continuous drip method of Marriott and Kekwick (1935).

(c) In acute poisoning in which the erythrocytes have been damaged so that they can no longer function as oxygen carriers blood transfusion is useful. Carbon monoxide poisoning has been successfully treated by exsanguination transfusion.

For anaemia uncomplicated by haemorrhage, the rate of transfusion should never exceed 1 c.c. per pound body

weight for hour (for an adult a pint every four hours or 40 drops per minute). In patients suffering from severe anaemia (haemoglobin less than 35 per cent), cachexia, or cardiac or respiratory disease the rate should not exceed 20 drops per minute. If time permits, alkalize the patient and maintain the alkaline state of the urine for at least 24 hours after transfusion to prevent acid haematin formation. If the recipient is nervous, $\frac{1}{4}$ grain of omopon can be given. A careful watch must be kept for symptoms of cardiac embarrassment (cough, dyspnoea, precordial pain, basal rales, etc.), and the transfusion stopped immediately if any of these appears.

Restoration of White Blood cells.

Blood transfusion stimulates the defence mechanism of the body in chronic infections where there is no leucocyte response. It should be noted that the blood used must be absolutely fresh (not more than a day old) as the W.B.C. disintegrate very quickly and the transfusion has to be repeated if sufficient response is not noticed.

Restoration of Platelets.

Only fresh blood should be used in certain haemorrhagic diseases, e.g. purpura haemorrhagica and haemophilia.

Restoration of Protein Constituents.

For this purpose stored blood 7 to 10 days old can be used. Plasma also is efficacious. In nephrosis there is a constant drain of albumin and plasma transfusion maintain the fluid balance. Plasma transfusion improves the general condition of patients suffering from hypoproteinaemia.

Supply of haemostatic Constituents.

Blood transfusion is the most effective means ensuring cessation of haemorrhage with the exception of actual ligation by supplying prothrombin, fibrinogen, calcium and some unknown factors. It is useful in haemolytic anaemias and haemorrhagic diatheses.

Supply of Immune Bodies.

Blood transfusion increases the passive immunity in cases of severe septicaemia. It supplies nonspecific complement. It has given dramatic results in osteomyelitis, appendicular abscess, and in other allied conditions.

In the treatment of infectious diseases, in acute and chronic sepsis immunotransfusions have been applied, that is the use of blood artificially immunised donors or of the blood of persons recovered from the particular disease. This would seem to be a sound procedure from a purely theoretical point of view. In the hands of some it has yielded encouraging results in the treatment of acute and chronic sepsis.

Neither plasma nor blood protein is by itself a perfect substitute for whole blood. Each of these and other blood substitutes has its own advantages and likewise its limitations that make it specially useful in some conditions and unsatisfactory in others. There are functions that plasma and blood proteins perform equally well as whole blood, while there are others in which they are vitally lacking. Wherever there is need to increase the oxygen distribution by the blood there will be need for transfusion of whole blood. Plasma meets the emergency need in combating shock in a satisfactory manner but the whole blood is generally beneficial. It may be mentioned here that complete blood substitute is yet to be found.

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"Index and Price-list from Continental Drug Co., Ltd., Worli, Bombay."

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

Conception and Menstruation. *Jl. of A. M. A. Aug. 9, 47. Page 1275.* Is it possible for coitus during menstruation to result in pregnancy and, if so, what is the mechanism of nidation? Is there any well founded objection to this practice?

Theoretically and from studies in monkeys conception is impossible during menstruation. The reason for this is that in both monkeys and women who have a fairly regular menstrual cycle varying from twenty-six to thirty days, ovulation occurs in the midinterval between the bleeding episodes. Ovulation usually takes place about fourteen days before the next expected menses. A female egg does not live more than a few hours, and spermatozoa probably are not capable of fertilization for more than twenty-four hours; hence for pregnancy to occur the ovum and egg must meet within a maximum period of forty-eight hours. However, R. L. Dickinson (*Am. J. Obst. & Gynec.* 14: 749 (Dec. 1927) studied the "safe period" as a birth control measure from seven different angles: (1) records of pregnancies resulting from isolated intercourse, (2) ovulation as studied at laparotomies or on removal of ovaries, (3) effect on the subsequent period of castrating irradiation given at different days of the interval, (4) studies of the age of very young embryos, (5) types of tubal contraction and alterations in epithelial layers as found in women and shown to occur in animals at egg passing time, (6) hormones in the blood at different times and (7) vaginal smears. Dickinson claimed that there was general agreement on five matters: (1) Conception can occur at any part of the month, (2) there is a definite difference between favourable and unfavourable periods, (3) the week or ten days following menstruation is the time of greatest likelihood of conception, (4) the week preceding menstruation presents the least chance of conception, averaging about 7 per cent, or in various lists 3, 6, 9, 9.3 and 10 per cent, and (5) conception during menstruation is relatively frequent, about 13 per cent. Dickinson says further that, in view of the common avoidance of intercourse during menstruation, the percentage quoted by him may indicate a lower capacity for conception than actually exists.

It is difficult to reconcile Dickinson's statements with known physiologic facts. In at least some cases in which reliance was placed on a single coitus, either the patient's memory was fallacious or she had good reason to tell an untruth. Likewise it may be possible that ova survive longer in women than in animals and also spermatozoa may be capable of fertilization for a longer time.

Except for aesthetic reasons there is no objection to having intercourse during menstruation if the flow is normal in amount. However, in women who bleed profusely the practice would be pernicious.

Excessive Body Hair. *Jl. of A. M. A. Aug. 9, 47. Page 1278.* Is there any effective treatment to prevent or remove excessive hair on the bodies of women? I have seen several young girls with large amounts of long dark coloured hair over the abdomen, back or hips. These girls are definitely handicapped. Is there any treatment, endocrine or otherwise, that will prevent or change this condition?

Although the information given is meagre it is assumed that the questioner is not referring to (1) cases of extensive hairy nevi of the bathing-trunk type or (2) cases of hypertrichosis associated with basophilic hypopituitarism (Cushing's syndrome) or adrenal cortical tumor. Authorities are in general agreement that if the latter two conditions are eliminated from consideration little can be expected from any treatment on an endocrine basis. It should also be mentioned that the use of x-rays to remove superfluous hair should not be resorted to.

If the amount of hair is not too great or the caliber too fine and it is considered sufficient handicap to indicate treatment, electrolysis may be employed with good results and without scarring, but in the areas mentioned it would seem that the end would hardly justify the tediousness of the procedure. If the amount is considerable and the caliber fine, the wax depilatories may offer the best results even though their effect is but temporary. Contrary to popular belief there is no evidence that the repeated use of such preparations will coarsen the hair, and it is possible that the reverse may be true.

Hypertension Following Benadryl. *Jl. of A. M. A. Aug. 9, 47. Page 1278.* In queries and Minor Notes in The Journal March 15, 1947 M.D., New Jersey, reports the development of hypertension in a hay fever patient aged 49 which responded to medical care and rest. During the past year benadryl had been prescribed and though the patient was relieved of the hay fever he developed a blood pressure of 192/120. Apparently withdrawal of the drug brought about a lowering of the blood pressure to 140/80. The question raised is whether or not hypertension can be produced as a side reaction from the use of either benadryl or pyribenzamine. The reply by the editor is that "it is definitely not the customary action of either benadryl or pyribenzamine to produce a hypertension". Permit me to report that benadryl produced a similar rise in blood pressure in one of my hay fever subjects - a man aged 55 - who received ragweed injections preseasonally and seasonally for many years with good results but who was given benadryl in the summer of 1946 for possible added relief. He developed severe headaches and a rise in blood pressure of 200/110. Following withdrawal of the drug the blood pressure returned to his usual level of 138/85. The patient refused to try pyribenzamine. A colleague, following my report of this case at a medical meeting, informed me that he has heard of a similar untoward reaction resulting from benadryl. Thus there are now 3 cases of a transient hypertension resulting from benadryl. I hesitate to account for this reaction. Further studies should be indicated to explain adequately this type of untoward reaction following the ingestion of this antihistamine drug. Apparently similar reactions have not been reported in connection with pyribenzamine.

Women Doctors—The Asiatic Digest
Not so many years ago people raised their hands in horror at the idea that a girl should want to go to the university and study medicine in the company of young men. Actually the woman doctor is as old as history itself. In Greek, Roman, and German mythology we find again and again the names of women who gave medical help to those who needed it. In Homer's *Iliad* we are told that Agamede,

the daughter of Augias, "knew as many healing herbs as there are in the world."

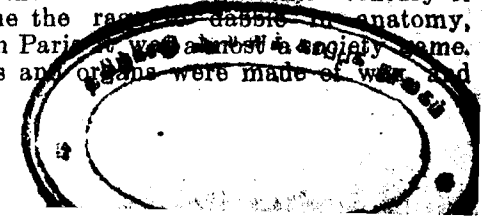
According to Pliny, Cleopatra was expert in the preparation of potions and ointments. In the belief of the old Teutons, the physician himself was protected by a goddess, and thus in the old sagas we frequently meet with the names of women who healed heroes from their wounds and pains.

In Italy, the south of France, and Portugal, there are many early epitaphs praising the names of women doctors. Theodosia, the mother of the martyr Procopius, was doctor; she was executed by Diocletian. It is said that a woman, Nicerate, healed the gastric trouble which afflicted Johannes Chrysostomus; and Hieronimus tells us of a woman called Fabiola who, at the time of the invasion of the Roman Empire by the Huns, sold all her possessions to found a hospital.

When the medical school of Salerno, in southern Italy, was at the height of its repute, a woman doctor named Trotula wrote a number of medical treatises. Famous also was the abbes of the nunnery Rupertsberg near Bingen, Hildegardis, who was born at the time of the First Crusade, in 1098. She too, wrote a number of books, and seems to have been particularly gifted as a diagnostician. There were several women doctors at the university of Florence between 1380 and 1400, and a woman professor of medicine and philosophy. Her name was Dorothea Bocchi, and she had taken over the professorship from her father.

With the progress of the Renaissance this zeal for study among women declined, but there was still a female Court doctor in Salerno in 1414. In the sixteenth century no more women doctors were officially to be found in France: the medical faculty of Paris had won its fight against them.

Fashion, of course, has played a part in the history of women doctors, as it has seldom left untouched anything undertaken by women. In the eighteenth century it became the rage to dabble in anatomy, and in Paris we can almost fancy some Limbs and organs were made of wax and



women used to gather and experiment more or less skilfully with medical instruments. Madame Bihéron became famous, and was allowed to perform her anatomical art in the presence of a learned Society.

In 1790 a book was published by Madame Necker, who was esteemed in France as a reformer of hospitals. She herself founded a hospital with 120 beds, which, considering the hygienic ideas of the time, was of extraordinary cleanliness, and in which, for the first time, two doctors had to live as resident practitioners. Madame Necker also believed that each hospital should have a special mortuary. Another strange figure was the German woman doctor Christine Erxleben, of Quedlinburg, who obtained permission to study at the University of Halle from no less a person than Frederick the Great. As she married

a widower with four children, however, she had no time to continue her studies, the more so as she herself became the mother of four. But when her husband died, she took her studies up again and was promoted in 1754.

Henry VIII encouraged the medical studies of women; but later they were again forbidden to practise. We hear, however, of Anna Halkett, who was a much-admired woman doctor in the seventeenth century. Among her other activities, she nursed soldiers wounded in the battle of Dunbar. Catherine Bowler, wife of a surgeon, did useful medical work in the eighteenth century, while a Berkshire woman, Joan Stephens, found a remedy for stone in the kidney, which was bought by Parliament for £5000.



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ASSOCIATION NOTES

BANGALORE BRANCH

President:—Dr. N. G. Prahlad.

Vice-President:—Dr. M. A. Narasimhachar.

Treasurer:—Dr. M. Kothandaram.

Secretaries:—Dr. T. K. Dayalu.

Dr. C. N. Ramadoss.

The General Body Meeting was held on 11th January 1948 at 4 P.M. at Boy Scouts' Headquarters, Fort, Bangalore City. Forty-five members attended the meeting. Dr. M. A. Narasimhachar, B.Sc., M.B.B.S., presided.

After Tea the proceedings began with the Secretary's Report and followed by the Treasurer's Report and both were adopted.

The following resolutions were passed:

1. Resolved that all eligible medical men be allowed to become members of the Bangalore Branch of the Indian Medical Association.
2. Resolved that the Membership fee be increased to Rs. 20/- per annum which includes the Central Fund Contribution of Rs. 6/- and tea expenses.
3. Resolved to address the Government, requesting them to give consideration to private medical men at the time of awarding foreign scholarships.

4. Resolved that the Government should reserve seats in the Medical College for the children of private medical men as many have invested large capital in their private practice and it is only legitimate that they expect their children to step into their shoes.

The following office bearers were elected for the year 1948:—

Dr. M. A. Narasimhachar, *President*
 „ G. V. K. Murthy, *Vice-President*
 „ H. Krishnamurthy } *Secretaries*
 „ K. S. Subramanyam }
 „ M. Kothandaraman, *Treasurer*

Committee Members:

„ K. S. Ganapiah
 „ M. S. Rao
 „ G. S. Dikshit
 „ B. V. Ramaswamy
 „ H. V. Ramachandriah
 „ M. N. Mahadevan
 „ M. S. Mekhri
 „ N. G. Prahlad

With a few remarks from the chair the meeting terminated.

MADRAS BRANCH

President: Capt. S. Thambiah

Vice-Presidents: Dr. K. C. Nambiar
Dr. U. Krishna Rao

Secretaries:—Dr. K. L. Narayana Rao
Dr. P. T. Raghavachari

Treasurer:—Dr. M. R. Bail

The minutes of the Annual General-Body meeting held on Wednesday the 29th October, 1947 at the Madras Medical College at 6-30 P.M.

Rao Bahadur Capt. S. Thambiah was in the Chair.

The following office bearers were elected for the year 1947-48.

Dr. K. C. Nambiar, *President*.
„ K. Narayanamurthy } *Vice-*
„ D. V. Venkappa } *Presidents*
„ K. L. Narayana Rao } *Secretaries*
„ K. Rama Rao }
„ M. R. Bail, *Treasurer*

Committee Members:

Dr. P. B. Anangarachary
„ V. N. Chandrasekaran
Major N. Chandrasekaran
Dr. V. Govindan Nair
„ U. Krishna Rao
„ J. A. S. Masilamani
„ P. Natesan
„ P. T. Raghavachary
„ R. Sankaran
„ G. D. Valiath
„ A. Viswanathan

Central Council:

„ P. B. Anangarachary
„ V. Govindan Nair
„ A. Viswanathan
Lt. Col. T. S. Shastri

Provincial Council:

Dr. D. V. Venkappa
„ R. Sankaran
„ K. B. Bhujanga Rao

The following resolutions were moved by Capt. K. Somayya and duly seconded.

After some discussion the resolutions were referred to the Committee for consideration and action.

This meeting requests the Government to implement forthwith the recommendations of the Bhore Committee Report and post-war health schemes of previous Governments so as to give planned medical reliefs to rural population and nationalisation of all medical services in the Province.

This meeting resolves to send a deputation to the Hon'ble Minister for Public Health to represent the views of the Association on Public Health and medical relief.

The following resolution moved by Dr. K. Somayya was passed unanimously.

This meeting resolves that Madras Branch of the Indian Medical Association takes immediate steps to send medical relief squad to work in the riot-torn areas of the East Punjab and that a Committee be appointed to work out plans and collect donations for the same.

The following resolution raising the annual subscription to Rs. 10/- was passed unanimously.

It is hereby resolved that the annual subscription be increased to Rs. 10/-

with effect from October 1st 1947 in view of the fact that the contribution to be paid to the Central Association has been increased from Rs. 3/8 to Rs. 6/-.

The following resolutions moved by Dr. V. Govindan Nair were passed unanimously.

This meeting offers its hearty congratulations to Dr. B. C. Roy and Dr. Jivaraj N. Mehta, Ex-Presidents of the Indian Medical Association, on their high appointments as the Governor of the United Provinces and as the Director-General of Health Services in India, respectively.

This meeting records its grateful appreciation of the action of the Government of India for appointing Dr. B. C. Roy as the Governor of United Provinces and Dr. Jivaraj N. Mehta as the Director, General of Health Services in India.

The following resolution moved by Dr. U. Krishna Rao was passed unanimously.

This meeting places on record its appreciation of the services rendered by the out-going President Rao Bahadur Capt. S. Thambiah, who took great interest in the Association and was responsible for enrolment of many new members. This meeting thanks the retiring Secretary Dr. P. T. Raghavachary and other Committee members for their valuable services during the previous year and also the Principal, Madras Medical College for allowing the Association to hold its meeting in the premises of the Medical College.

The President in his concluding remarks stressed the need of the members taking greater interest in the work of the Association with a view to making their voice felt by the Govt. who should consult the Association on all matters connected with Public Health etc. He also exhorted doctors to take more interest in arranging clinical meetings so that the lectures arranged by the Association may be to the benefit of all doctors concerned.

With a vote of thanks to the Chair, the meeting dispersed.

MALABAR BRANCH

Annual Report 1946 - 1947.

Ladies and Gentlemen,

We have great pleasure in placing before you the Annual Report of the Working of the Malabar Branch of the Indian Medical Association for the period 1946-47.

The Association is running as a branch of the Indian Medical Association from 28th May 1946. The last annual meeting was held on 30th November 1946. Though an annual meeting was held on 27th April 1946, another meeting was held on the 30th November 1946 to be in line with the parent body (I.M.A.) as their official year commences from October.

Office Bearers.—At the annual meeting held on 30-11-46 at the Women and Children Hospital, Calicut the following office bearers were elected.

Patron:—Dr. N. S. Venkitachala Iyer
President:—Dr. Mrs. M. M. Shepherd
Vice-President:—Dr. N. Achuthan
Secretaries:—Dr. C. V. Narayana Iyer
 & Dr. A. Govindankutty Nair

Committee Members:—Dr. Mrs. T. Chari,
Dr. M. K. Koya, Dr. M. Sundaram,
Dr. T. Balakrishnan, Dr. G. D. Rodrigues, Dr. V. I. Raman

Treasurer:—Dr. P. Balaram

Auditors:—Dr. Hermon & Dr. U. Thri-
vikraman.

Of these Dr. Mrs. M. M. Shepherd left Calicut and in her place Dr. N. Achuthan was elected President on 31-5-47 and for Vice-Presidents Dr. V. L. Raman was elected. Dr. N. S. Venkitachala Iyer expired in January and the place was left vacant. All others held office throughout.

Members. There are 76 members of whom 28 are from the mofussil. There is an increase of 39 members. Of these Dr. N. S. Venkitachala Iyer and Dr. M. Damodara Menon expired.

Meetings. Nine meetings were held during the year when papers were read and interesting cases demonstrated. The average attendance at these meetings being 29. There were 6 Committee Meetings.

A meeting was arranged on 1-4-47 to meet Dr. P. V. Cherian, the Surgeon-General of Madras. Another meeting was held on 12-4-47 to bid farewell to Lt. Col. and Mrs. Shepherd. The Association celebrated the Independence Day on 27-8-47 on a grand scale. All the other meetings were ordinary meetings.

Accounts. The Association was collecting Rs. 6/- per member as annual subscription out of which Rs. 3.8/- per member was being contributed to the Central Association. As the contribution to the Central Association has been increased to Rs. 6/- per head the annual subscription fee has been increased to Rs. 10/- per head. Last year's

arrears amounted to Rs. 12 out of which we collected Rs. 4. The arrears for the year under report amounts of Rs. 274 -.

General. Though it is 16 years since the Association was started, we are sorry that we have not been able to get so far a premises of our own. Our attempts at getting the Hackett Wilking Memorial Hall has only resulted in a promise by the Surgeon-General to have a separate hall in the new hospital buildings. Till then the members must take an active interest and have a place atleast on rental basis. This would help the mofussil members a great deal as many find it difficult to get accommodation in town. We appeal to all those mofussil doctors who have not so far joined us, to strengthen the Association by enlisting themselves as members and to take an active interest in its proceedings.

The Association is subscribing for the Antiseptic, Medical Review of Reviews and the Indian Medical Gazette in addition to copies of Indian Medical Journal and Miscellany which are sent to all members.

In conclusion we would like to express our gratitude to the members of the Executive Committee for their help and co-operation, to Dr. K. Madhava Menon and the staff of the Head Quarters Hospitals for arrangements of the meetings and to all other ladies and gentlemen who helped us in serving our Association.

January 1948]

THE MADRAS FIRE AND AMBULANCE SERVICE

In the August issue of the 'Miscellany' was published a list of places where Ambulance Service was available.

Below is published a notice issued by the Madras Fire and Ambulance Service

On call all the twenty-four hours of the day. Available to all sections of the public at any time of the day or night.

If you notice any victim of an Accident, Quarrel, or case of Sudden Collapse lying on the streets or other public places, please contact the local fire station by telephone.

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Rs. 2/- for one engagement trip within the Municipal Limits in the Mofussal.

Conveyance outside Municipal Limits will be charged for at Rs. 8 a mile.

Full particulars can be had from any Fire Station.

The Telephone Number of all Fire Stations in the Madras presidency is 99

For Calling The M. F. S. Ambulance. Phone No. 99

Or

Send a messenger giving full particulars of address and nearest land-mark.

Or

If there is no telephone in your town or village, go to the nearest Railway Station and request the Station Master to contact the Fire Station

Or

go to the nearest Electric Power Station and request the Officer-in-charge to contact the nearest Fire Station.

Fire—Phone 99 Fire—Phone 99

In case of Fire send message to nearest Fire Station by same method as detailed above for calling Ambulance.

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Dr. Capt. Raghavendra Rao	"	"	5
Dr. K. N. Raman	"	"	5
Dr. Capt. Govindaraju	Thammampatty	"	5
Dr. T. N. Vajravel	Attayampatty	"	5
Dr. Raman Nambiar	Iddappadi	"	5
Dr. A. Krishna Iyer	Sankari	"	5
Dr. Earuchettiar	Jalankandapuram	"	5
Dr. S. Padmanabha Pillai	Ammamet	"	5
Dr. S. Ardhanari	Salem	"	5
Dr. A. Kumaraswamy	"	"	5

Trichinopoly Dist.

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Dr. A. Mathuram	"	"	50
P. A. S. Raghavan	"	"	25
Lt. Col. R. K. Chettur D.M.O.	"	"	20
Joseph Gnanadickam	"	"	15
C. R. Thiruvengadam A.D.M.O.	"	"	15
Dr. P. Palayandi Pillai	Jayankondam	"	10
Dr. A. Ramasamy Iyer	Sendurai	"	10

South Arcot Dist.

Dr. S. Chandrasekaran	Cuddalore	"	50
Dr. V. Krishnamurthy	"	"	25
Dr. C. Seshachalam Naidu	"	"	15
Dr. Nataraja Jata Vallabar	Chidambaram	"	15
Dr. Raja Ram	"	"	10
Dr. Sankaranarayanan	"	"	10
Dr. N. Jagadesan	"	"	10
Dr. K. C. Roy	"	"	10
Dr. M. Natesan	"	"	10
Dr. A. Govindaswamy	Kattumannarkoil	"	10
Dr. P. V. Krishna Iyer	Ullundurpet	"	10
Dr. P. A. Bhandhary	Tirukoilur	"	10
Dr. R. V. David	Villupuram	"	10
Dr. Jacob	Vridhachalam	"	10
Dr. Miss M. Carlson	Tirukoilur	"	10
Capt. K. S. Ganesan	Kallakurichi	"	10



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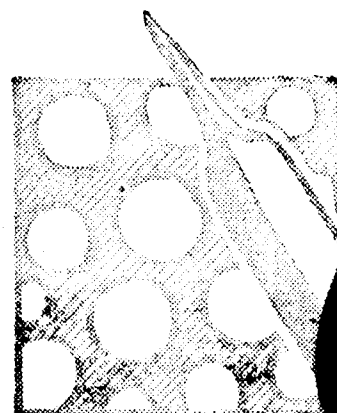
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Galevin, prepared from chemically pure Calcium Levulinate, is manufactured by a special process developed in our laboratories.

Calcium Levulinate contains 50 per cent more calcium than Calcium Gluconate. It is less irritant than other calcium salts and much safer to administer.

Being more soluble than Calcium Gluconate, there is no necessity to adopt any special precautions to keep the salt from crystallising in ampoules as with solutions of gluconate which are always supersaturated.

Galevin is recommended in all cases in which Calcium by injection is indicated. Galevin is available to Physicians in two strengths,

1. 10 per cent solution for intravenous use &
2. 15 per cent solution for intramuscular use.

CONTRA INDICATION: Injections of 'Galevin' should not be given during the course of treatment with the digitalis group.

PACKINGS:

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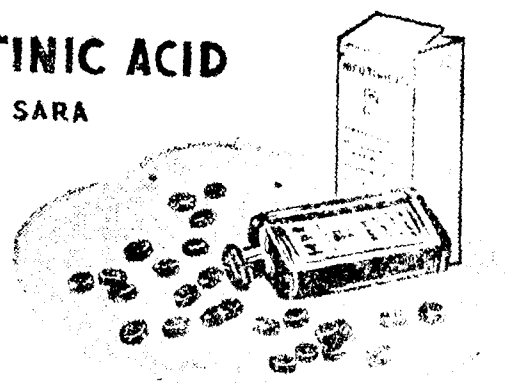
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SARA



Nicotinic Acid Sara is a white odourless crystalline powder, melting between 234—237 C. It is non-hygroscopic and one gram dissolves in 60cc. of water at ordinary temperatures. It is stable in the dry state.

INDICATIONS: Nicotinic Acid is a specific in the treatment of pellagra and its administration in clinical doses produces striking results in clearing up the glossitis, stomatitis, gingivitis, pharyngitis, dermal lesions and mental stupor and depression of this deficiency disease.

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Give me a healthy body, Lord,
With sense to keep it at its best."—An Englishman's prayer.

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A drop of Glycerin on the eye removes the corneal haze in glaucoma in a few seconds.

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After the Blood Bank and the Eye Bank comes the Human Milk Bank in England. The milk is pasteurised and kept in refrigerator and used for needed cases.

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A healthy adult body contains about as much Iron as there is in a 1½ inch nail.

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A lawyer's mistake is hung on the air; an engineer's is thrown on the ground, but a doctor's is either buried deep or burnt to ashes.

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"This Corn Flour is absolutely useless."
"Why, what is wrong with it?"
"Well, I have used it on my corns for a fortnight and they are just as bad as ever."

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"Are you sure, doctor, of your diagnosis?" asked the anxious patient.
"They say you doctors treat a case for Malaria, but the patient dies of Typhoid."
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"I am very glad to let you know the result of your product the RESO-LIVER which I have tried on one male aged about 37. His blood was examined before giving your product. After giving one Bottle of RESO-LIVER, his blood was examined again. I am glad to let you know that the result was wonderful. There is an improvement of 25%...The Patient was not under any other medical or injection treatment during or before the treatment. I am glad to let you know that the product "RESO-LIVER" is as good as any other foreign preparations.

Yours Sincerely,

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MISCELLANY

Managing Editor: Dr. P. A. S. RAGHAVAN

MONTHLY JOURNAL OF THE SOUTH INDIAN BRANCH
OF INDIAN MEDICAL ASSOCIATION

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The manufacture and sale of this product is fully protected by Indian Patents Nos. 26513/39 and 26850/39 (May & Baker Ltd.), and by corresponding patents in many other countries.

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KIV

FEBRUARY 1948

No. 8

**PARTY TO Dr. U. KRISHNA RAO, MAYOR OF MADRAS AND
VICE-PRESIDENT OF THE INDIAN MEDICAL ASSOCIATION**

On 12th December 1947, the Madras Branch of the Indian Medical Association got up a Tea party at "Woodlands" to felicitate Dr. U. Krishna Rao, on his election as Mayor of Madras.

There was a large and distinguished gathering of members of the profession, including the Hon'ble Dr. T. S. S. Rajan, Minister for Food. The guests were received by the President Dr. K. C. Nambiar and the Secretaries Drs. K. L. Narayanarao and K. Ramarao.

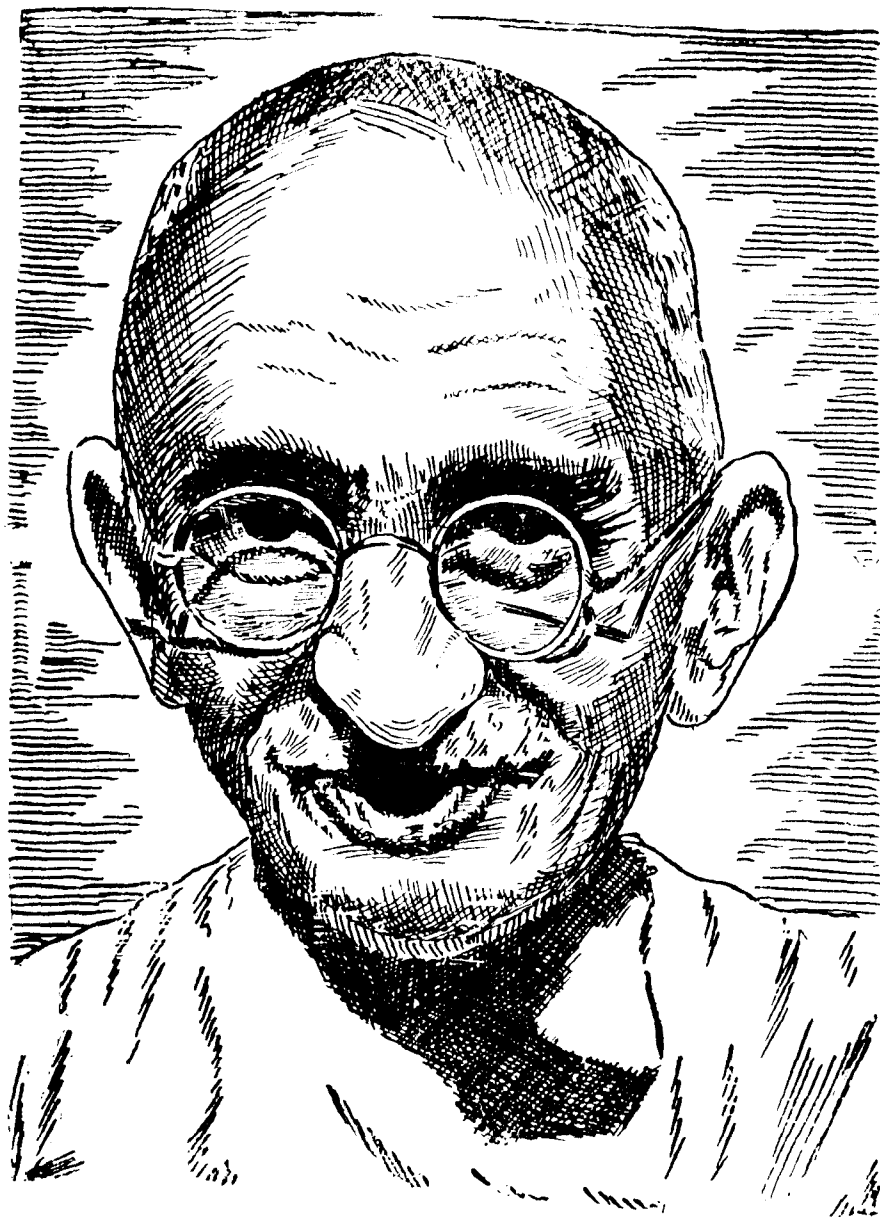
After Tea, Dr. K. C. Nambiar made a speech congratulating Dr. U. Krishna Rao for the honour conferred on him by his unanimous election as the First Citizen of the premier city of Madras, after the attainment of Independence. He said that the Mayor was associated with the I.M.A. from its very inception. He was the founder-member of the Madras Branch, was associated with the various activities of the Association and was also Vice-President of the Madras Branch. He was also the General Secretary of the Reception Committee of the XIV All India Medical Conference held at Madras in 1937. He was for some time Joint Secretary of the Central Association and is one of the three Vice-Presidents for the current year. Dr. Nambiar stated that it is but fitting that the Association must honour their own man and it is really few and far between that Medical men occupy such distinguished position in public life. Dr. Nambiar wished him long life and many more such honours in public and political life.

Dr. P. Gurumurthi of Rajahmundry, who was present on the occasion congratulated the Mayor on his election. Dr. D. V. Venkappa and Capt. S. Thambiah also made suitable speeches associating themselves with the felicitations offered to Dr. Krishnarao. Dr. U. Krishna Rao, the Mayor and the Chief guest of the day in his reply thanked the President and members of the Madras Branch for the Tea and for the congratulatory speeches by the members. With the guidance and co-operation of the members of the profession, he said he would do his best to improve the health of the City and give the citizens pure water, pure air and other amenities, thus making the city clean, healthy and beautiful.

With the vote of thanks proposed by Dr. K. Rama Rao, the function came to a close.

Dr. EDWARD PAUL MATHURAM

We are glad to note that Dr. Mathuram, a member of our association, has been elected unopposed as a Councillor of the Trichinopoly Municipality. Coming of a family of reputed doctors, his father, grand-father, brother-in-law and brothers all being doctors, with a reputation for charity and service, we hope our colleague will do his best to improve the sanitation and health of Trichinopoly.



MAHATHMA GANDHI

The Apostle of Peace, Non-violence and Truth, who baffled doctors and defied death many times and finally laid down his life for the cause he preached and practised all his life.

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THE MISCELLANY

JOURNAL OF THE SOUTH INDIAN BRANCH
OF
THE INDIAN MEDICAL ASSOCIATION

VOL. XIV]

FEBRUARY 1948

[NO. 8

VESICO-VAGINAL FISTULA AND ITS TREATMENT

BY

DR. P. VADAMALAYAN, M.B., B.S.
Hon. Surgeon, Erskine Hospital, Madura.

When your Secretary wrote to me some time back asking me to read a paper in the scientific section on the Second Provincial Conference of the All India Medical Association the subject that was foremost in my mind was Vesico-Vaginal Fistulæ and their treatment. I was wondering whether the subject will be a suitable one for the occasion. I at first thought that it will be out of place, but when I pondered over it I knew that it would be useful.

Any one doing surgery must be able to tackle V.V.F., at least a great proportion of them. Given the patience and perseverance, I am sure every General Surgeon must be able to tackle a V.V.F. and successfully too, as I shall show later on.

For the present discussion I have with me a record of a consecutive series of 124 cases of V.V.F. treated by me in the Erskine Hospital, Madura, during the last eight years. Of these 124, 99 cases were cured by local repair and 25 were treated by transplantation of the ureters into the colon. All the 99 cases of local repair were cured at one sitting except three mentioned below. Of the 25 cases of Uretero-Colic transplantation two died. 37 cases were in the first 4 years of the review and the rest in the latter half of the period. Of these 124 cases 82 were from

Madura District, 32 from Ramnad, 8 from Tinnévely and 2 from Pudukottah State. There were no cases from Coimbatore District. The duration of the complaint ranging from one month to 5 years.

CAUSES OF V. V. F. :

- (a) Injuries.
- (b) Burns.
- (c) Carcinoma of the Cervix.

Injuries

Prolonged labour causing the sloughing of the anterior vaginal wall and the base of the bladder by the pressure between the foetal head and the pelvic bones has been the commonest cause in the series. Most of the patients were attended by barber midwives. The base of the bladder is occasionally torn during forceps delivery especially when previous catheterisation has been omitted. 12 cases gave a history of forceps delivery. The bladder may be injured during Hysterectomy, or Vaginal repair. None of the cases were the result of the latter.

Burns and Carcinoma of the Cervix.

May occur during radium treatment of Cervical Carcinoma. Carcinoma of Cervix may invade the base of the bladder at a late stage and may give rise to V. V. F. These latter causes were not met with in this series. One

of the cases recorded had multiple Vesical Calculi and it is presumed the presence of Vesical Calculi was the cause of the V. V. F. due to the bladder being torn during the descent of the head. It is most unlikely the stone developed later as with such free drainage in a V. V. F., Calculus formation is not possible.

SIGNS AND SYMPTOMS

Continual dribbling of urine from the Vagina is the outstanding symptom. When the urine becomes infected a foul ammoniacal odor results followed by irritation and soreness of Vulva. It is easy to diagnose a V. V. F. with the patient in the lithotomy position, with a Sims Speculum and a good light. A small fistula can easily be demonstrated by running a coloured fluid like Methylene blue into the bladder.

Fistula due to Carcinoma increases in size while small fistulae following operation or laceration of the Vaginal wall occasionally close spontaneously especially when the bladder is continuously drained. Usually however these fistulae are permanent. These are two conditions which make the closure of the fistula difficult.

- (i) The presence of urine which tears a part of the healing edges and
- (ii) the close proximity of the Epithelial surfaces of the bladder and the Vagina. The depth of tissue between the Vagina and the bladder being small the epithelium between the two surfaces rapidly proliferates and meets round the margin of the opening.

TREATMENT

The treatment of V. V. F. has a fascination of its own. No branch of surgery calls for greater resource, never is patience so sorely tried, and never is success so dependent on the exercise of constant care both during operation and, more perhaps, during the anxious days of convalescence.

But never is reward greater. Nothing can equal the gratitude of the woman who, wearied from constant pain depressed by an ever growing sense of the humiliating nature of her infirmity and desperate with realisation that her presence is an offence to others finds, suddenly that she is restored to full health and able to resume a rightful place in her family—who finds, as it were that life has been born anew and that she has become a citizen of the world.

If in the following few minutes of my talk I can make you take an interest in the treatment of this disaster to mothers, I shall deem it a reward indeed for my humble effort.

Prevention of this distressing condition is, you will admit, an important part of the antenatal work and of improved obstetrics. You may know that V. V. F. is so rare in Western Countries that it is almost a surgical curiosity, in fact, the other day Dr. Scudder of Vellore fame told me that when she was in America a few years ago she was asked to operate on a case of V. V. F., a tiny one too. Surgeons all over that vast continent came from far and wide to witness her operation. V. V. F. is so rare in that country. Look at that and this picture of our country where a surgical ward has very often two or three cases of V. V. F.

A 100 years ago V. V. F. was thought to be incurable and it was to Marion Sims (Sims Gynaecological position. Sims Speculum) that the first attempt at repair of V. V. F. was due. Like Robert Bruce of old, Sims patiently tried and failed; for the 31st time he succeeded in closing a V. V. F. by local repair using a fine silver wire. Till such time that V. V. Fs. are a surgical curiosity, I hope that we undertake to cure this infirmity and it is with the earnest hope that the general surgeon will undertake this

laudable work that I was prompted to read this paper—and impress on one and all of you how easy it is to do given the time and patience.

TREATMENT OF V. V. F. BY OPERATION

Small fistulae can be cured by the non-operative method, if you will so call it, i.e. by cauterising the hole with silver nitrate or the point of the actual cautery and continually draining the bladder—in my series I have done this thrice—twice as a second stage in a big fistulous opening done by local repair when a tiny hole persisted over the urethra.

V. V. F. may be closed by the Vaginal or the abdominal route—I have always adopted the Vaginal route and had no occasion to choose the abdominal route or transvesical route.

Vaginal operation: Two methods are employed

1. Trimming and suture.
2. Flap formation and suture.

As an Assistant, I have seen the previous method in quite a number of cases—but very often failure was the result. Perhaps with the fine silver wire and the Sims operation technique more success is likely. In my series of 99 cases of local repair I have always adopted the flap formation and suture method with very great success. In these 99 cases a second operation was necessary in only 2 cases and in one a third operation. This last was first done having been referred by a colleague when the patient was 5 months pregnant. The tissues were friable because of the pregnancy—the second time because of bad technique—Two tiny holes in the bladder were invaginated after the raising of the Vaginal flaps and to my surprise the two holes persisted when the repair was taken up for the third time. This time when

they were connected, cure was permanent. The other 2 cases of second stage operation were those where a bit of a mucus membrane of the urethra was taken in spite of the utmost care as the fistulae were involving the urethra and these were easily cured by cauterising the opening with the point of a thermo-cautery.

I shall describe the flap operation in some detail as it was here that I met with gratifying results. I believe a V. V. F. can always be repaired locally by this method no matter how big the hole is. I have at least a dozen cases where the V. V. F. was so large that the whole of the base of the bladder was absent so that the anterior bladder wall was prolapsing into the Vagina. In one case the ureteric orifices could be visualised. The one criterion for local repair is a Vagina roomy enough to take a needle (Smallest and stoutest fully curved Mayo's needle) in a holder inside the Vagina. In a case where the mucus membrane is deficient the Cervix is taken up and made to lie just behind the Urethra. It is said that when the urethra is involved local repair is not possible—but I have reconstructed the urethra in 7 cases—where just a wee bit of the urethra was left. Of course I admit when the vaginal mucus membrane is very much absent and only the bare symphysis pubis with the periosteum is present in front of the V. V. F. local repair is an impossibility. When the Vagina is cicatrised and will just admit the tip of a finger there is no point in attempting a local repair—These are cases for transplantation of the ureters into the colon. I know the transplantation of ureters is a much more serious operation and some of the surgeons just for the sake of surgical display or perhaps being impatient for local repair would undertake the operation even in cases where local repair would have succeeded. Considering the immediate risk of the operation of transplantation and the ultimate results

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—as the after comfort of the patient and the late septic sequelae, the local repair will always be preferred to transplantation.

I shall now describe the local repair in some detail as it seems to be the operation of choice.

The instruments required are simple—a few short stout fully curved Mayo's needles, curved Mayo's scissors, 3 or 4 allis forceps, dissecting and toothed dissecting forceps, a dozen straight artery forceps—weighted speculum, a female metal catheter and a good light. I always use light percaine spinal anaesthesia by giving 5 to 8 c. c. the anaesthesia may be made to last 3 hours or more. I have taken as much as 3 hours for a case. The suture material used is 20 day 000 catgut. I had no occasion to use silk-worm gut or silver wire. The essential principles in the operation are that the flaps are raised freely from the Vaginal mucus membrane and the bladder separated well all round so that there is not the slightest tension when sutures are tightened. If the opening is small a purse string suture is used to close the rent and invaginate the bladder mucus membrane. Another layer of interrupted sutures are put to reinforce the former and the vaginal mucus membrane is closed over this by eversion stitches. It is planned, where possible, to have the vaginal suture line at right angles to the sutures used to invaginate the bladder wall. The important point is never to take a bite of the mucus membrane of the bladder or of the urethra—If you do, however perfectly the operation is done, there is bound to be a leak. I prefer the stoutest and shortest Mayo's needle because when one has to pass the needle in all sorts of angles there is no chance to break the needle. I apply sterile Sulphanilamide powder for every layer of stitch and this seems to have helped healing by first intention. You will see that very few cases had to be done a second or third time. After the suturing is done the dead space in the raw surfaces created is obliterated by plugging the vagina fairly tightly with acriflavine gauze. The other important thing is to tie in an ordinary catheter with the proper length inside the bladder and apply continuous drainage of the bladder with Cathcart's drainage so that the sutured area in the bladder is completely dry all the time. Just before sending the patient to the ward I put in 5 to 10 c. c. of Sulphanilamide solution into the bladder. It is better to choose a small size rubber catheter No. 5 or 6 so that the urethra is not unusually kept dilated. In a few of my early cases even when the fistula remained closed, patients complained of incontinence when they were allowed, out of bed. But they were able to regain the sphincter control after a few days. It is better to prevent this by using a small size catheter. The catheter is tied in for 9 days and then removed and the patient is allowed to pass urine every few hours. The bladder is washed daily with Acriflavine 1:8000 solution. The vaginal plug is removed after 48 or 72 hours and a catheter douche is given. Thereafter no plugging of vagina is necessary—as this is harmful in that the introduction of the gauze may tear assunder the vaginal mucus membrane apposition. The patient is kept lying on the back with head low and is allowed to turn on the sides, without undue tension on the catheters which are stiched to the labia and fixed to the body so that it may not cut through after 4 or 5 days. The patients are put on Sulphanilamide tablets, one 4th hourly and alkaline diuretics by mouth. It is better to switch on to Mandelic acid in teaspoonful doses 3 times a day after 4 or 5 days as otherwise Phosphatic concretions form on the catheter and block the continuous drainage on which depends the success

of the operation. I never had occasion to keep the bladder dry by supra pubic cystotomy except in the case with multiple vesical calculi where the calculi were removed by suprapubic lithotomy and the bladder also drained suprapubically.

As I told you 99 cases were done by the local repair in which in only 3 cases a second operation was necessary and in one a third operation. Three of these cases cured by local repair had a recto-vaginal fistula also. The R. V. F. was repaired at the same sitting. In the first case the R. V. F. was so big, almost extending to the Cervix that it was difficult to provide the Vaginal Mucus Membrane flap. Skin from the buttock was used to cover the raw surface by a pedical graft. The V. V. F. closed at the first sitting and though it was a difficult one it was easily repaired because of the roominess of the parts.—The R. V. F. would not take. Repeatedly the R. V. F. repair was undertaken with failure. After this failure I did a preliminary colostomy before taking up the local repairs. The next two cases did very well. The V. V. F. and R. V. F. were cured at one sitting.

These women were sent with a card stating that whenever they became pregnant they should come to the hospital for confinement. In many of these cases the parts are so narrow that labour via naturalis is impossible and a note is added that the case is for caecerian section. We get almost every month one or two of these operated cases coming for confinement in the hospital. We sterilise these women at the time of caecerian section. In one of the recent case I remember an elderly woman complaining that I did not tell her that she must not become pregnant—rather she accused me saying that she had to undergo an abdominal operation for the delivery of her child. She would have allowed her husband to take a

second wife—a rather interesting method of contraception!

TRANSPLANTATION OF URETERS

I have had 25 cases of transplantation of ureters for cure of V. V. F. Of these 2 died.—One died of burst of abdomen and another of ascending pyelitis. There were 3 cases in these 25 done at one stage. Now I like to do them in two stages, the right ureter into lower part of the colon and the left ureter into the upper part after an interval of 3 to 4 weeks. I have adopted the two stage operation because the post operative period seems to be so very smooth. The first case of mortality in the single stage with burst abdomen was done only very recently as we were so enthusiastic after a success of two stage of operation. In the 2nd case of mortality the left ureter was transplanted first at a higher level in the colon and the right after a month into the lower part of colon and the patient had died of ascending pyelitis of the right kidney. I afterwards do the two stage of operation with the right ureter first and the left in the second stage. The left ureter is taken above through the meso-sigmoid and transplanted from above into the upper part of the colon.

Many of these cases with irreparable V. V. F. have an R. V. F. also. I had six of these cases. It is imperative that the R. V. F. is repaired first, as otherwise motion and foeces will be incontinent. I have always done a left Iliac colostomy first before repairing R. V. F. The colostomy is closed and after about six weeks the uretero-colostomy is taken up in two stages. In a case of irreparable V. V. F. planned for transplantation of ureters the left iliac colostomy was done and the R. V. F. closed. Before making certain that the R. V. F. had taken perfectly the colostomy was closed and the patient complained of passing motion and foeces from Vagina. On

examination there was a small defect in the recto-vaginal septum and to repair this we had to do a transverse ileo-colostomy before the repair of the R. V. F. had to be taken. This patient remained longest in the hospital about 2 years. I shall not be describing the operation of transplantation in detail and shall be content with showing the main principles in the steps of the operation.

The patients are prepared with Sulpha drugs and alkalis by mouth for a week and sulphaguinidine, and of late, Sulphasuccidin in big doses for 3 days before operation. The patient is given a castor oil purgative 48 hours before the operation and colon washed

twice a day for two days with acriflavine. The right ureter is transplanted first into the lower part of the sigmoid colon by the technique described by Grey Turner. Invariably the appendix is removed. The abdomen is closed without drainage, after dusting the area of operation with sulphanilamide powder. The rectum is drained with a flatus tube stiched into the buttock. As regards the left ureter the only difference is that it is immobilized and taken through the meso-sigmoid and transplanted from above downwards.

There were no cases of peritonitis in the series. None of my cases have come back for confinement in the hospital.

Paper read at the 2nd South Indian Medical Conference Coimbatore on 18th Oct. '47.



"Index and Price-list from Continental Drug Co., Ltd., Worli, Bombay."

February 1948]

OTOSCLEROSIS

BY

DR. V. S. SUBRAMANIAN; M.B., M.Sc., F.R.C.S.

Otosclerosis is the name given to a form of conductive deafness which is often confused with, and wrongly diagnosed as Catarrhal Deafness.

During the end of the last century, Politzer, the pioneer Otologist was the first to study a large number of these cases at the Vienna Alms-House both during life and at post-mortem. He described it as follows—"Otosclerosis is a primary disease of the bony capsule of the Labyrinth. It is a proliferating bone growth occurring in certain areas of the Capsule only, called the 'Sites of Predilection.' As long as the disease is confined to the bony Capsule no clinical symptom could be observed in the patient. But when the Endostal or Periostal layer is overstepped, ankylosis of the Stapedial Foot-plate occurred, which in turn lead to a sound conducting lesion. The Ear-drum and the Eustachian tube are normal in these cases." Such a plain and correct statement was made by Politzer as early as the last century.

In fact, till 1930 our knowledge of the disease did not make any further appreciable advance from what he said then. In the summer of 1893, Politzer read a paper before the Pan-American Congress at Washington on the pathology of Otosclerosis. He said that in most of the cases studied by him, the mucous membrane did not show any change in the middle ear from the normal and sections of the decalcified bones showed sharply defined pathology in the neighbourhood of the Oval window. It was differentiated from the normal bone by its deep Carmine staining property. The pathology showed marked enlargement of bone spaces and Haversian system.

From the above description it is quite obvious that Otosclerosis cannot be diagnosed unless it involves the region of the Oval window with the resulting partial or complete bony ankylosis of the Foot-plate of Stapes.

Therefore when we describe or diagnose Otosclerosis in a living patient it refers to the 'Clinical Otosclerosis,' where the deafness is a clinical manifestation of the disease.

Synonyms—There is perhaps no other disease in the Medical Literature which has so much confusion in the nomenclature as Otosclerosis and this may be attributed to the great diversity of opinions in the problem of its unknown etiology. To enumerate some of them they are:

1. Chronic Progressive Deafness,
2. Otoporosis,
3. Osteospongiosis,
4. Osteites Media, Catarrhalis sicca,
5. Osteites Vasculosa,
6. Osteo fibromatosis,
7. Otite Media Iperplastica,
8. Hereditary Deafness etc.

Pathology—The important pathological changes in Otosclerosis can be summarised as follows:—

- 1st Otosclerosis is a disease of the bony labyrinth and occurs as circumscribed patches.
- 2nd There is a sharp line of demarcation between the diseased process and normal bone.
- 3rd The staining property of the diseased bone is different from that of the normal, as shown by Haematoxyl Eosin stain.

- 4th The normal size shape and arrangements of cells found in the normal bone are absent in the diseased bone. In Otosclerotic foci, the cells are coarse, irregular in shape and arrangements and is increased in number.
- 5th Very large medullary spaces are found in the Otosclerotic focus, and engorged newly formed blood vessels can be observed in the medullary spaces.
- 6th There are no changes in the bone surrounding the Otosclerotic focus.
- 7th There is no positive diagnostic means for the disease, except by histological examination, which would mean only at Post-mortem.
- 8th Deafness is only a manifestation of the disease when it involves the Stapedo-Vestibular joint.

Thus, from a study of the pathology, two facts are important to be remembered, viz. (a) Otosclerosis is a misnomer, because there is more of Osteoporosis than Sclerosis. Further it is an unfortunate misnomer, because it is often mistaken to be associated with Arterio Sclerosis, to which disease there is no connection whatsoever; and (b) that when we say or diagnose Oto-Sclerosis, we mean the clinical Otosclerosis, where the disease has encroached on the Stapedo-Vestibular joint and has caused complete or incomplete ankylosis of the Foot-plate of Stapes to the Oval window.

Etiology—I do not propose to discuss the many theories in the etiology of the disease. The very fact that there are many theories to the etiology of the disease, goes to prove the simple truth that the etiology of the disease is still unknown.

I shall just mention the names of the important theories forwarded as to its etiology. They are:

1. Inflammatory Theory of Fraser,
2. Traumatic Theory of O. Meyer,
3. Neo-Plastic Theory of O. Meyer,
4. Theory of systemic disease of the skeletal system, like Paget's disease, Von Recklinghausen's etc.,
5. Theory of congenital origin from the foetal cartilage remains found in the bone,
6. Theories of Metabolic Disfunction,
7. Syphilitic theory of Habermann,
8. Frey's Theory of Para-thyroid hypofunction,
9. Disturbances of Circulation, as described by Wittmack, Gray, Kobrak and others.

Occurrence :—*Sex*—More in women than in men; the ratio is 3 : 2.

Age—Usually starts during adolescence—but this is noticed only in the 2nd or 3rd decade of life when the hearing level falls below the 30 decibel level.

Distribution—Like Syphilis and Tuberculosis, Otosclerosis also enjoys an universal distribution and is impartial to colour or race.

Signs, Symptoms, and Diagnosis of Clinical Otosclerosis.—

1. *Familial History*—A familial history of hereditary deafness is available, in a majority of cases and when available, is of diagnostic value. Lack of such history may mean that the parent or grand-parent may be having Otosclerosis without the involvement of the Oval window.

2. *History of Onset*—characterised by gradual onset, slowly progressive, may be unilateral to start with, but always bilateral at a later stage.

3. *Bezold's Triad*—very diagnostic of the disease and includes

- (a) Markedly negative Rinne.
- (b) Prolonged Schwaback.
- (c) Loss of lower tones.

4. *Tinnitus*—the patients are frequently annoyed by the presence of continuous or intermittent head noises, which may be mild or severe. The Tinnitus gets worse when the deafness progresses, but usually disappears in very advanced cases of Otosclerosis.

5. *Pawansius Willisii*—a condition described by Willis, of altered hearing wherein the patient notices that the hearing seems to be better in noisy places, as in busses, trains, tramcars, crowded and noisy places etc. There are various explanations to this phenomenon, but I shall omit them for the sake of brevity.

6. *Patent Eustachian Tube*—The Eustachian tube is quite patent and the hearing shows no improvement after the Eustachian Inflation.

7. *The Tympanic Drum*—is usually atrophic and translucent.

8. *Tuning Fork Tests*—(a) *Weber's Test*—the sound is lateralised to the worse of the two ears, provided the bone conduction in that ear is greater than the other. (b) *Rinne's Test*—is markedly negative (c) *Schwabach's*—prolonged nearly twice as the normal ears, provided the Cochlea is not affected.

Differential Diagnosis—All forms of conductive deafness must be ruled out. But the most important, which often gives rise to difficulty is chronic Catarrhal Middle Ear Deafness. This is ruled out by (i) absence of familial deafness, (ii) partial or complete obstruction of Eustachian tube may be present in catarrhal deafness, (iii) absence of Stapedo-Vestibular ankylosis, as evidenced by Gelle's Test, (iv) often

is unilateral in catarrhal types, and (v) the ear-drum may be retracted or show evidence of old perforation scars.

Treatment—may be classified as Surgical and Non-Surgical.

There are lots of things that were and are still being done in a Non-Surgical way, and to mention them all, will not only take up valuable time, and will besides be of little value or help. I say this because they are all no good except to help the Doctor's purse and perhaps also give a psychological satisfaction to the patient.

They are, to mention a few important ones—(1) Eustachian Catheterisation, (2) Pneumo-Massage, (3) Prostigmin Injections, (4) Para-Thyroid Therapy, (5) Vitamin B Injections, (6) Potassium Iodide by the mouth etc., etc.

The most commonly done treatment is the Eustachian Catheterisation, and inflation on the presumption that the Eustachian tube is blocked.

Believe me, Gentlemen, the Eustachian tube is never blocked in 99.9 per cent of cases, and the treatment is absolutely useless. I have observed the Eustachian orifice in the Nasopharynx in many of these patients, and the orifice is quite patent and opens up well when the patient is made to say "h".

The only non-Surgical management worthy of mention in Oto-Sclerosis is the fitting of Electric Hearing aids. They are, when properly fitted with the correct aid, very useful, except that it is a bit cumbersome.

The hearing aids recommended must be invariably the air conduction type, and not the bone conduction type, just because the bone conduction is better in these patients. In America it has been found that bone conduction instrument is found to be more beneficial only in a very small percentage of cases.

The Surgical treatment of Otosclerosis is, as many of you might have heard, by 'Fenestration Operation.' Fenestra means a window. 'Nov Ovalis' new window in place of the closed up oval window. As I said before, in Otosclerosis, the Oval window gets completely or partially closed up by the ankylosis of the Foot-plate of Stapes to the Oval window, as a result of otosclerotic process involving the region of Oval Window. The transmission of sound waves in the inner ear is through the fluid medium called the Endolymph.

The Endolymph, like any other fluid is incompressible. Therefore to set the sound waves in this noncompressible medium there ought to be two openings for the contraction and rarefaction of the fluid wave. Normally the Inner Ear has the Oval and Round window communicating to the Middle Ear, and the sound is transmitted from the Ear drum, through the three Ossicles, Malleus, Incus and Stapes to the Oval window and then rarefaction or escape takes place through the round window covered by its own secondary membrane. But in a case of Otosclerosis, the Oval window is blocked, and so the inner ear does not function well, even though the Nerve of hearing is in a healthy condition, and the Cochlea, the organ of Corti etc. are normal. Therefore the Fenestration Operation consists in overcoming this difficulty by making another new window "Nov-Ovalis" in the region of the Horizontal Semi-circular Canal near its ampullated end, and near the junction of the canal to the Utricle.

This idea of creating a new window was first thought of by Dr. Holmgren of Switzerland, but his technique was poor so that it did not give him any success. Next Sourdill who tried to improve this technique also failed to achieve any definite success.

Dr. Julius Lempert of New York, after spending years of hard work on

this subject of good technique, came out with the famous "Fenestration Operation" for Otosclerosis. In the early years of this operation, he used to make the new window in the Horizontal Canal proper, but later changed the site of fenestra to the so-called Surgical Dome of the Vestibule, which is situated further forward, where the bony canal joins the bony Vestibule. This changed position has two advantages, viz. the window can be made much wider and bigger with less chance of its closure and (2) the membranous labyrinth is not so closely placed to the bony wall and so the danger of bursting the membranous Endolymph Labyrinth is much smaller.

The newly made window is covered by a flap made up of the ear-drum which is partly detached from the Annulus, and the skin covering the postero-superior wall of the bony External Canal. The Sharpnell's portion of the Ear-drum usually covers the window and acts like a secondary drum.

The various steps in the Fenestration Operation are:—

1. Endaural Triangular incision and exposure of the Mastoid Cortex.
2. Exposure of the Antrum and Exenteration of all mastoid cells.
3. Exposure of the Incus and Incudo-Malleal Joint by working at the Zygomatic cells between the roof of the External Canal and the floor of the middle fossa.
4. Removal of the bony Postero-Superior Canal wall including the so-called bridge.
5. Removal of Incus and the removal of the head of Malleus by cutting the Malleus at its neck.

6. Making the Tympano-Mental flap.
7. Making the Fenestra on the Surgical Dome of the Vestibule, in the Horizontal Canal.
8. Covering the Fenestra with flap and packing the cavity with paraffin gauze.

Selection of a case for operation—
All cases of Otosclerosis are not necessarily operable. The most important pre-requisite is the good functioning 8th nerve as detected by bone conduction tests with Tuning Forks and Audiometer. The ear drum must be entire and there should be no obvious pathology of the Middle Ear.

The Operation is usually done on the worse of the two ears and the better ear is left alone, so that even if the 1 in 100 chance of accident to the membranous labyrinth takes place, there will not be complete deafness resulting.

The operation is done under local anaesthesia with good pre-operative medication. In some cases it may be supplemented with Nitrous Oxide Anaesthesia.

The operation is always done with electric bone drills and fine curettes, but never with chisel and hammer.

Post Operative Sequelae

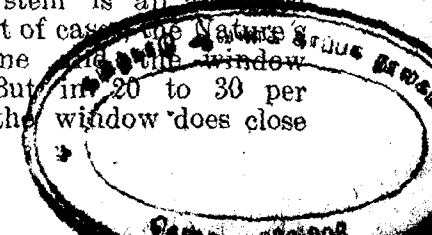
Accidents and Complications of the Operation.

1. The greatest danger is the damage to the Endo-lymphatic Labyrinth while making the Fenestra in the bone. This is avoided by patience and care and the use of magnifying glasses, and I prefer to do this stage with the patient under Nitrous Oxide Anaesthesia, so that there is no danger of his moving the head and thus causing damage.

2. The second danger is the occurrence of post-operative labyrinthitis. This is prevented not only by the exercise of great aseptic precautions, but mainly by giving Penicillin prophylactically for four days from the date of operation, the daily dose being three Lacs in Wax. Of course there is always a mild form of aseptic surgical Labyrinthitis, but this subsides in a few days and causes no serious damage.

3. Injury to the Facial Nerve is another not uncommon complication. The Facial Canal is situated just in front of the new window and behind the oval window. While removing the bony External Canal wall this Nerve is often injured or cut. Slight damage to the nerve is met with occasionally and the patient gets facial paralysis on that side lasting for 2 or 3 months. Complete damage to the nerve is almost unknown.

A late complication of the operation is closure of the fenestra either by fibrosis or bony regeneration. Fibrotic closure will occur in 4 to 6 weeks, whereas the bony closure may be expected from 6 months to 1 year. This complication is the greatest problem as it is a question of expecting something against Nature. When a fractured Femur re-unites in six weeks, it is obvious how soon a window of 4 mm. x 2 mm. must close. Dr. Lempert has to a great extent overcome this obstacle by his special technique of polishing the margins of the fenestra, with lead and gold polishing burrs. By so polishing, the cut edge of the window, the Haversian system is all obliterated and in 70 per cent of cases the Nature's hand is overcome and the window remains open. But in 20 to 30 per cent of cases, the window does close



partly or completely and the hearing improvement goes back to its original level. So, he thought of using a cartilage stopple to plug the window before covering it with the flap. Though this technique did decrease the incidence of labyrinthitis, the bony regeneration was not effectively stopped, as the growth of the bone usually pushed the stopple out.

Before closing to-day's paper, I wish to summarise the important requisites for a fit case as follows:—

1. A case of bilateral progressive deafness occurring in 2nd or 3rd-decade of life, without any discharge from the ear.

2. Patent Eustachian orifice and normal ear drum.

3. Familial history, and often associated with Tinnitus.

In women where it is often seen, the history of its getting worse in child-birth is very characteristic.

The bone conduction as tested by Tuning Forks is very much prolonged than the air conduction. In this connection, I wish to mention that the Tuning Forks to be used must be of 512 vibrations per minute and not 256. I am making a special mention of this because 256 frequency fork is the one commonly tried by all E.N.T. Sur-

geons and it is a vibrating fork and even an advanced deaf patient will say that he hears it, because he feels the vibration.

The Audiogram reading is an absolute necessity in diagnosis and management of Otosclerosis pre- and post-operatively. The instrument is called an Audiometer and has different frequencies marked on one dial and different intensities called as Decibels marked in the other dial.

From the above description of otosclerosis, its pathology and surgery two things are very evident and must be remembered:—

(a) All otosclerosis patients are not necessarily deaf.

(b) Surgical treatment for otosclerosis does not cure the otosclerosis but only overcomes the hearing defect.

I hope I have made myself clear and anybody having doubts or requiring clarification on points not sufficiently clearly expressed by me, are welcome to ask questions and I shall endeavour to answer them as best as I can.

I thank you all for having given me a patient listening.

Paper read at the 2nd South Indian Provincial Conference of I. M. A. Coimbatore on 19th Oct. 1947.

CHANGE OF ADDRESS

DR. BENEDICT VEDA, M.B.B.S., from Trichinopoly to King Institute Guindy, Madras.

February 1948]

BILL TO REGULATE PROFESSION OF PHARMACY

Moving that the Bill to regulate the profession of Pharmacy be referred to a Select Committee in the Dominion Parliament, on Dec. 12, the Hon'ble Rajakumari Amrit Kaur, Minister of Health said:—

"In asking the House to accept this motion, I would just like to say a few words about the very unsatisfactory position that exists, today. There is no authority whatsoever to regulate the profession and the practice of pharmacy. The practice is largely in the hands of persons known as compounders and they are both trained and untrained. The profession is unorganised. There is no provision for registration. There is no check to prevent untrained persons from under-taking this very responsible work, of compounding and dispensing medicines without any restriction.

"Compounders are trained today in provinces but the training is not of a high enough standard. A Drugs Act actually exists to control the quality of drugs that are imported and those that are manufactured at home but how can this Act be effective if we have not got an organised and trained profession of pharmacists for dispensing

those very drugs. The position in advanced countries is that every pharmacist is required by law to be registered and he cannot be registered unless he has gone through a particular course of studies and passed a particular examination.

"I submit that it is only right that we also should have such rules in our country. This Bill that has been brought forward is intended to remedy these glaring defects. It is sought to provide for Central and Provincial Councils that will not only prescribe minimum standards of training and qualification but will also inspect training institutions and will maintain registers of qualified persons. It is absolutely necessary that dispensing by unqualified persons should be stopped.

"The Bill was actually introduced in January 1946. It was circulated for opinion to all Provincial Governments and later, circulated again. Replies have been received.

The Bill was drafted after consideration of these replies. The measure is long overdue. I, therefore, hope that the House will have no hesitation in accepting the motion to refer it to the Select Committee".

A MARVEL in SURGERY

A Soldier who took his own appendix with the aid of a mirror and an ordinary pen knife has been awarded the Military Cross and Bar in Brisbane.

He is Captain Robert Kerr McLaren, a 50 year old Veterinary Surgeon of Queensland.

Captain McLaren said: "I knew I had appendicitis and would die unless I did something. I used a mirror and an ordinary pen knife for the operation, it was hell. But I came out alright and used jungle fibre to stitch the wound."

He performed the operation while in the Philipines.

S. T. 25-1-48.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

Penicillin Therapy in Sinusitis. *E. E. N. T. Monthly Oct. '47.* As with most of the newer remedies in medicine, there seems to be no unanimity of opinion concerning the value of penicillin in the treatment of nasal sinusitis. This antibiotic has been used for both local and systemic effects on this pathologic process. Concerning the topical use of penicillin, Cardwell found, after a careful study, that sinuses affected with penicillin-sensitive organisms respond dramatically to treatment with penicillin in concentrations of 500 units per cubic centimeter, whether the disease is acute or chronic. He concluded that results have been better with penicillin instillations than with any routine previously used. Everett, on the other hand, testing the local effectiveness of the sulfonamides and penicillin in antrum infections, came to the decision that penicillin was less effective than sodium sulfathiazole containing a vasoconstricting agent. In this connection, it should be noted, as pointed out by Florey et al., that the effect exerted by penicillin differs from that exerted by the sulfonamide drugs on staphylococci and streptococci in that it is influenced only to a minor degree by the number of bacteria to be inhibited. Furthermore, penicillin administered locally does not prevent the invasion of secondary organisms.

Krauss expressed the opinion that the topical use of penicillin present a definite step forward in otorhinolaryngologic practice, although the results are not so dramatic as those observed in fulminating infections when the drug is employed parenterally. Krauss states: "When the Proetz displacement method is employed or when direct instillation of the penicillin is possible the results in many of the cases have been striking and appear to be much more satisfactory than those with any other form of treatment, including the use of the sulfonamide drugs. . . . When topical administration is supplemented by parenteral administration, the clinical results are much more striking; this would seem to represent the method of choice." Smith concurs in this view,

and from his investigations claims that a combination of systemic administration and local instillation of penicillin is better than either form of treatment alone in cases of maxillary sinusitis.

The present tendency to depend exclusively on the use of antibiotics or chemotherapeutic agents in the management of nasal sinusitis is highly objectionable. It is well known that in many instances acute sinusitis clears up spontaneously or with simple local measures like shrinkage or lavage. It seems doubtful, from available reports, whether any special irrigating solution is superior to the commonly employed isotonic solution of sodium chloride. Even if penicillin solution possesses unusual virtues as a topical agent, it is questionable whether it remains in contact with the sinus mucosa long enough to produce a favourable effect. Obviously in severe sinusitis the systemic administration of penicillin is more reliable and doubtless the method of choice.

Despite the controversial aspects of this problem, most rhinologists have added the use of antibiotics or chemotherapy to the classical treatment of sinusitis. With penicillin, dosage and duration of treatment are important factors. Premature discontinuation of injections has occasionally accounted for failure of results. Finally, we agree with DeBlois that in evaluating the antibacterial action of penicillin topically applied in the ear, nose and throat, the drug is not an effective bactericidal agent in this tract.

The Headache Problem. *Noah D. Fabricant, M.D., E.E.N.T. Monthly Oct. '47.* Known to mankind since the dawn of history, headache is a complaint so common that remedies for it are dispensed in the United States through slot machines. It has been estimated that approximately one-half of all patients who seek medical advice or attention have headache as one of their complaints. The men who have charge of the employees in our large industries say that about one-fourth of all of the absences of

employees are credited to headaches. Headache is a constant challenge to physicians. Many patients who consult a physician for other symptoms fail to mention the presence of headache because of their firm belief that it cannot be relieved.

Headache is a symptom, not a disease. More often than not, headache is a symptom that occurs without signs. Wise physicians direct their therapeutic efforts toward the cure or elimination of the disease process rather than directly at the symptom itself. Many of the causes of headaches are acute illnesses which either run their course or are cured within a relatively short period of time. Headaches of this type do not ordinarily present any particular problem to the physician.

Headache may be defined as pain inside the head. According to Lewis, pain is divided into two types; superficial and deep. These show differences in quality. Superficial pain originates from skin or mucous membranes, while deep pain originates from muscle or blood vessels. Superficial pain is described as burning; deep pain as boring, aching, "sickening," disagreeable and continuous. Most important of all, deep pain frequently does not localize the seat of the mischief with any degree of exactness, but may be referred to a distance.

Innumerable classifications have been developed so as to group the causes of headaches in various ways and thus guide the technic of study. One method, for instance, groups some 203 causes under three classifications mechanical, toxic and functional. Another classification establishes four major groups, the most commonly encountered headaches being of vascular origin; the second being associated with fever and septicemia; in turn followed by headaches stemming from hypertension, trauma, lumbar puncture, the nose and sinuses, the ears, teeth, and the eyes; and finally, the headaches which occur least frequently, namely those associated with brain tumors, arteritis, meningitis, subdural and subarachnoid hemorrhages, and the major neuralgias and neuritis. In this discussion no classification will be followed.

Rather, some mention will be made of some of the more likely types of headaches actually or allegedly occurring in clinical practice.

Allergy is not a common cause of headache and represents only a minor role in the etiology of migraine. The number of individuals harassed by severe, recurrent, incapacitating headaches in which allergy may be incriminated will not be large. On the other hand, Foster Kennedy, a prominent eastern neurologist maintains that constipation is really the most common cause of prolonged headache. "I have cured many headaches by reducing water intake," he asserts. "The idea of 'forcing fluids' has been a ritual for fifty years on this continent. Every nurse says it in her sleep. The result is that patients think that by taking 8, 10 or 12 glasses of water a day, being nearer they think to cleanliness, they may be nearer, too, to godliness. By reducing fluids to 1 or 1-1/2 quarts a day, one can frequently stop recurrent severe headaches due to water balance chronically disturbed."

The solution may be different with other patients whose headaches occur intermittently for months or years, with much accompanying distress and discomfort. In many patients with chronic headaches, medication is chiefly of value in relieving the discomfort of the acute attack, and it is only reducing the amount of mental stress to which the patient is subjected that the headaches can be reduced in frequency and severity and often rendered easier to control by suitable medication when they do occur. There are two principal modes of therapy for such individuals: drug therapy and psychotherapy.

The psychologic problems vary greatly from patient to patient. In some they may be largely the result of an unfavourable environmental situation which must be changed for improvement to result. In others, the difficulty is primarily in the inner life of the patient, with the result that he cannot adjust adequately even to the usual demands of his daily life. In the absence of all organic disease, it may be said that headaches often

develop as an expression of disturbances in the emotional sphere or of a psychoneurotic state.

Rhinologists know by experience that the localization of pain associated with sinus disease is poor. Nasal headaches usually appear during the day and very seldom at night. Pain, as a rule, is usually associated with acute or subacute sinus infection. In most instances, the pain is of a dull, aching quality, seldom associated with nausea or vomiting. Headaches, are intensified by conditions which increase mucosal swelling such as anxiety and resentment, menstruation, cold air, sexual excitement, or the effects of alcohol. On those occasions when headache presents itself as a symptom in chronic sinusitis, the headache is of a low order of intensity.

Headache associated with various ocular disorders has long been recognized as a clinical entity. Errors of refraction, muscle imbalances and glaucoma are universally described as causing headache. Headache usually starts around and over the eyes and subsequently radiates to the occiput and back of the head. Patients with increased intraocular tension or pressure describe a sharp pain which at first remains localized in the eyeball, then extends in an aching fashion along the rim of the orbit and finally throughout most of the area supplied by the ophthalmic division of the trigeminal nerve.

Many patients complain of tightness and pain in the back of the head and neck. Tenderness throughout the trapezius muscles is commonly associated with these complaints and is most intense along the top of the shoulders and in the upper neck. Another common complaint is that of pain, pressure or paresthesia over the vertex of the head. Noxious stimuli from any part of the head may lead to sustained contraction of the head

and neck muscles. This sustained muscle contraction gives rise secondarily to pain in the shoulders, neck and head. Reassurance, bedrest, heat, massage, stretching of the neck and occipital muscles, by extension apparatus or moderately strong counter traction through weights and pulleys, acetylsalicylic acid and phenobarbital reduce the intensity of such headaches or completely relieve them.

Regardless of the mechanism of their production, mild headaches are mitigated or completely relieved by acetylsalicylic acid. On the other hand, headaches of moderate intensity are partially or completely relieved by codeine. In general, analgesics may be given repeatedly for short periods, but obviously therapeutic interest must be directed to the underlying cause of pain. Rarely if ever, should morphine be administered to patients with brain tumor associated with increased intracranial pressure or to patients with vascular or muscle headaches that are sustained for long periods or that are recurrent. Fortunately, the headache of brain tumor is seldom so intense as to require opiates.

The danger of patent headache medicines and the danger of self-medication cannot be over emphasized. Reliable estimates indicate that nearly 200 different "cures" available to the general public contain bromides. Chronic bromide intoxication accompanied by mania and delirium can follow self-medication with bromide preparations. This condition is a frequent cause of admission to psychiatric hospitals. Other preparations contain ingredients which cause blood dyscrasias and which lead to drug addiction. An enlightened and aroused medical profession has nearly driven aminopyrine from the market. The same reaction to other harmful headache preparations is long overdue.

G. J. G.

ASSOCIATION NOTES

NEGAPATAM BRANCH

President : Dr. M. Sanjeeva Rao.
Vice-President : Dr. J. Y. Arthur.
Secretary : Capt. S. S. Chariar.
Jt. Secy. and Treasurer : Dr. T. S. Varadhachary.

The monthly meeting of the above association was held at the Govt. Hospital, Negapatam on Saturday the 28th Feb. '48 under the presidency of Dr. M. Sanjeeva Rao, M. B. B. S., Civil Surgeon. Dr. Radhakrishnan stood "Tea".

Before the commencement of the meeting the association moved a resolution mourning the death of Mahatma Gandhi as 'This association deeply mourns for the loss of Mahatma Gandhi who was the father of Indian Nation and an incarnation of God in the garb of Ahimsa'. Passed all standing in silence for 2 minutes.

The circulars of the Central Association regarding the subscription to be paid through the Provincial Branch

were read to the members. The appeal regarding the contribution towards the Refugee Doctors Benevolent Fund was read at the meeting and the doctors were requested to contribute their might, not less than Rs. 10.

A detailed talk was given by Dr. V. D. Rajan about 'Lenticular Opacity' and the same was supplemented by Doctor Rama Rao and Dr. Chariar.

General discussion took place regarding the issue of vaccination and inoculation certificates and it was decided to convene another meeting to consider the various aspects.

With a vote of thanks from chair to the host and the speakers, the meeting came to a close.

RAMNAD BRANCH

President : Lt. Col. M. A. Parthasarathy.
Vice-President : Dr. T. S. Shetty.
Secy. & Treasurer : Dr. T. Sundaresan.

The inaugural meeting of the Ramnad Branch of the Indian Medical Association was held at the Raja's High School, Sivaganga on 21-2-48 at 4 p.m. under the Presidency of Dr. T. S. Shetty, Vice-President of the Association. Capt. S. V. Joseph was the host.

Before commencing the deliberation, a resolution of condolence was moved from the Chair on the death of Mahathmaji and all the members stood silent for 2 minutes as a mark of respect to the revered soul.

After the minutes of the last annual meeting was read and adopted, Dr. Shetty, desired that in view of the

retirement from service of Dr. Venkatachalam, who was elected as president at the annual meeting, Lt. Col. M. A. Parthasarathy, F.R.C.S., be elected as president for the year. This was unanimously approved.

From now on, the newly elected president took the chair and conducted the meeting. Capt. S. V. Joseph delivered an interesting lecture on "DIAGNOSTICS OF PAIN". Discussions followed in which several members took part.

The meeting terminated after vote of thanks to the host Capt. S. V. Joseph and the authorities of the school.

TRICHINOPOLY BRANCH

The 18th annual meeting of the above association was held at 4 P.M. on Sunday the 15th Feb. 1948 when 60 members were present. Dr. P. A. S. Raghavan presided.

The President in his opening remarks explained that the annual meeting fixed for the 31st Jan. could not be held on that day due to the tragic demise of the World's greatest man, and father of the Indian Nation, Mahatma Gandhi, but is being held to-day. At his request, Dr. M. Balamal sang Ragupathy Raghava Rajaram, Mrs. K. I. Vythilingam of Vellore, read a prayer and Master Natarajan sang a song on Rama. The following resolution was moved from the chair and passed, all standing in silence for two minutes.

"This association deeply mourns the demise of Mahatma Gandhi, the apostle of Truth, Non-Violence and Love, who baffled doctors and defied death many times but died a martyr for the principles which he preached and practised all his life."

Dr. V. Enok, the Secretary then presented the annual report and audited statement of accounts.

The report shows all round activity through the year and mentioned about the participation of some of the members in Public Health activity such as inoculation, against Cholera and Plague and Dist. Health participation Leprosy Councils and Radio Talks and also mentioned about the active part taken by some members in running the Rajaji Tuberculosis Sanatorium at Trichinopoly. A notable future was the revival of the 'Miscellany' under the auspices of the Provincial Branch and the starting of a Study Circle and Reading Room. The report was adopted.

The President then suggested that the convention of electing the President and Vice-President unanimously on the floor of the house be continued and it was accepted. The President proposed that Dr. T. N. Subramaniyan L.M.S., one of the oldest members of the association be elected as the President for the coming year and this was unanimously accepted. Dr. R. Kalamegham proposed that Dr. Joseph Gnanadickam be elected as the Vice-President and this was also unanimously accepted. Ballot was taken for the other office-bearers, which resulted as follows:—

Dr. P. V. Sundaram, B.Sc., M.B.B.S.,
Secretary.
Dr. C. R. Chary, B.A., M.B.B.S., D.M.R.
Treasurer.

Committee Members:

Dr. P. A. S. Raghavan, Z.M.R.E.
„ T. V. Srinivasan, M.B.B.S.
„ T. V. Sundaram, D.M.S.
„ V. Enok, M.B.B.S.
„ R. Ganesan, M.B.B.S.

Provincial Council:

Dr. P. A. S. Raghavan, Z.M.R.E.
„ G. Joseph Gnanadickam, L.M.P.
„ P. V. Sundaram, B.Sc., M.B.B.S.

Central Council:

Dr. P. A. S. Raghavan, Z.M.R.E.
„ P. V. Sundaram, B.Sc., M.B.B.S.

Dr. T. S. Balasubramaniya Iyer then moved the following resolutions which were unanimously accepted:—

"Resolved that a Building Committee consisting of the following members be formed, to make an early beginning for putting up a habitation of the association:—The President, the Secretary, the Treasurer, Dr. R. Kalamegham, Dr. T. S. Balasubramania Iyer and Dr. P. A. S. Raghavan."

February 1948]

"The association requests the Government to exempt medicated wines containing less than 20% of spirit from the operation of the Prohibition Act, as it is causing a good deal of inconvenience to both the prescribing doctors and the patients".

"The association requests the Government to permit Registered Medical Practitioners to keep a stock of upto 1 lb. gallon of mythilated spirit and 1 lb. of Rectified spirit for their professional use."

After Tea Party given by Prof. Gajjar Pharmaceuticals Ltd., the annual gathering commenced at 6 P.M. with Dr. T. N. Subramaniyan in the chair. In his opening remarks Dr. Subramaniyan thanked the members for electing him as the President and though he was stepping into the shoes of Dr. Raghavan who had done so much for the association and had an all India reputation in the medical world, he hoped to do his best for the association with the co-operation of all the members.

Lt. Col. R. K. Chettur and Dr. C. R. Tiruvengadam demonstrated a case of stab wound abdomen where though the external wound was negligible, the gut was perforated, and Dr. Miss. A. K. Verghese read case report of a case of Cervical Fibroid, operated in the hospital.

ALCOHOL

Has Alcohol Medicinal Properties:— One of the stock arguments of the critics of Prohibition is that alcohol has medicinal properties. It is surprising that this argument is continued to be advanced seriously even though the theory of alcohol possessing medicinal properties was exploded as early as 1785. Dr. Benjamin Rush of Philadelphia was the first to call public attention to the dangers of alcohol

At the request of the President, Dr. Raghavan introduced Mrs. K. I. Vythilingam of Vellore the Vice-president of the South Indian Provincial Branch as an interested worker of the Association, who attended the three Medical Conferences in South India, and as one who takes a keen interest in the Vellore Branch. That she was an erudite scholar was borne out by the fact that qualifying as a Licentiate in 1928, who took the degree in 1935 and the Doctorate in 1945 and was now working as an Associate Professor in the Medical College at Vellore. He then requested her to deliver her lecture on Cirrhosis of the Liver. Dr. Vythilingam then read an interesting paper on the subject dealing with the etiology, pathology, signs, symptoms and treatment of the disease. This was followed by an interesting discussion in which many members participated. (The Lecture will be published in the 'Miscellany'.)

There was then an interesting film show on Gas-Air Analgesia and Closed Circuit Anaesthesia by the Indian Oxygen and Acetylene Co. Ltd., and Technicolour Sound Film on 'Folvite' by Lederle Laboratories, both being projected by Mr. Satagopan of the J. S. Radio Co., Trichinopoly.

With a vote of thanks to authorities of the Bishop Heber High School, the host, and lecturer, the meeting terminated.

in his medical pamphlet published in 1785. Later the American Medical Association made an authoritative statement to the effect that alcohol had neither medicinal properties nor nutritive value. During the twentieth century advanced medical researches have gone further in this direction and have shown conclusively that alcohol and other narcotics have not only no medicinal value but are dangerous to health,

The latest authoritative pronouncement has been made by the Bhore Committee constituted by the Government of India in 1943 for making a health survey of this country and formulating remedial measures. The Committee has made five points which may be tabulated thus:-

1. The main action of alcohol is on the nerve system. It never stimulates.
2. In very small doses it has a sedative effect. It produces a sense of obliviousness in the victim.
3. As food it requires no digestion before it is absorbed into the blood. It has little value as a source of energy

because of its harmful effects on the higher nerve system. Unlike other foods it cannot be stored on the body and drawn up as required.

4. In medical treatment alcohol serves but a limited purpose. The medical view of alcohol has changed quite radically in recent times. "Today medical science is of one mind that alcohol is often harmful in the routine treatment of disease".

5. Longevity is also affected by the habitual use of alcohol. The mortality surveys conducted in America as well as insurance records bear out this point.

(Madras Information, 15, Jan. '48)



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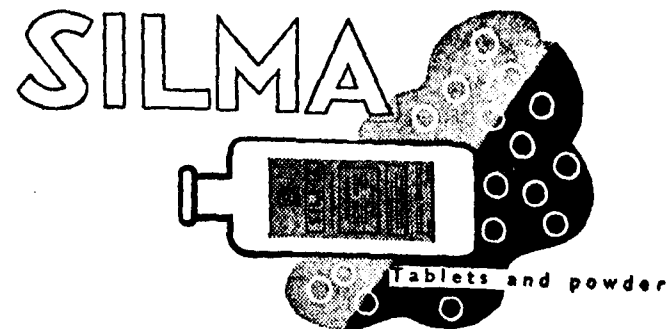
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February 1948]

"REFUGEE DOCTORS RELIEF FUND"

We gratefully acknowledge receipt of the donations from the following:—
A sum of Rs. 1010/- has been remitted to the Central Office, in addition to a sum of Rs. 394/- remitted by the Ramnad branch directly. The balance will be sent in due course. Members who have not yet contributed are requested to do so early.

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Col. S. L. Bhatia	Surgeon-General	50	
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Dr. Mrs. K. C. Ganapathy	"	5	
Dr. Mrs. V. Barotto	"	5	
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Capt. G. S. Rao	"	10	
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Dr. A. Govindankutty Nair	"	10	
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Dr. B. Gopala Menon	"	10	
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Dr. V. V. Janaki	"	10	
North Arcot.			
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Dr. T. B. Mathews	"	10	
Dr. N. M. Krishnan	"	10	
Dr. T. C. Kumaran	"	10	
Dr. K. Venkataramana Rao	Kotagiri	10	
Capt. V. Govind	Ootacamund	10	
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Dr. S. Narayanaswamy	"	10	



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Girls react more violently to stresses and strains than boys, but they relax and recover more quickly. This difference, according to Dr. Sontag of Ohio, probably explains why men are more prone to have gastric ulcers than women.

By an operation of anastomosis of the vas deferrens surgeons in Germany are trying to make fertile again those sterilized by the Nazis.

It is gradually being realised in the West that the general practitioner, compared to the specialist, is over worked, underpaid and under rated and efforts are being taken to better his condition.

With anaesthesia becoming more and more a speciality, the anaesthetist in future, is to be called the anaesthesiologist.

According to a pharmacist, the chemicals in the human body once valued at 3s. 11d. are now worth £ 7, 18s. 9d.

The five leading causes of death in U.S.A. are now accidents, heart disease, cancer, cerebral haemorrhage and nephritis. Previous to the advent of Penicillin and Sulfa drugs, pneumonia was topping the list.

Medico (exasperated): "Oh, what should I give to impart a kiss on your lovely lips?"

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सर्वजनाः साखेना भवन्तु

MISCELLANY

Managing Editor: Dr. P. A. S. RAGHAVAN

MONTHLY JOURNAL OF THE SOUTH INDIAN BRANCH
OF INDIAN MEDICAL ASSOCIATION

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Announcement

MADRAS SHOP ASSISTANTS ACT

We are glad to note that the Government have exempted permanently from all the provisions of the Madras Shops and Establishments Act the following classes of establishments:

Advocates' chambers, doctors' consulting rooms, dispensaries attached to Doctors' Consulting rooms, Nursing Homes, and other institutions for the treatment or care of the sick, infirm, the destitute or the mentally unfit.

The Government have also exempted from the provisions of Section 41 (Notice of dismissal) of the Act, persons employed on contract for fixed periods.

Dr. EDWARD PAUL MATHURAM

We congratulate our colleague Dr. Mathuram on his election as CHAIRMAN of the TRICHINOPOLY MUNICIPALITY. He is the first doctor to be elected as Chairman of the Trichinopoly Municipality since its inception.

Though the powers of Local Bodies are limited and it might be difficult to carry along with him a heterogeneous class of councillors, we hope that Dr. Mathuram, with his zeal for public service and energy of youth, would be able to do at least some good to the town by reducing the dust menace which is a cause of disease, by improving the condition of the roads, improve the slums, and water supply and drainage.

The profession should be proud of the fact that 3 out of 4 major Municipal bodies i.e., Madras, Coimbatore and Trichinopoly, have elected doctors as Mayor and Chairmen.

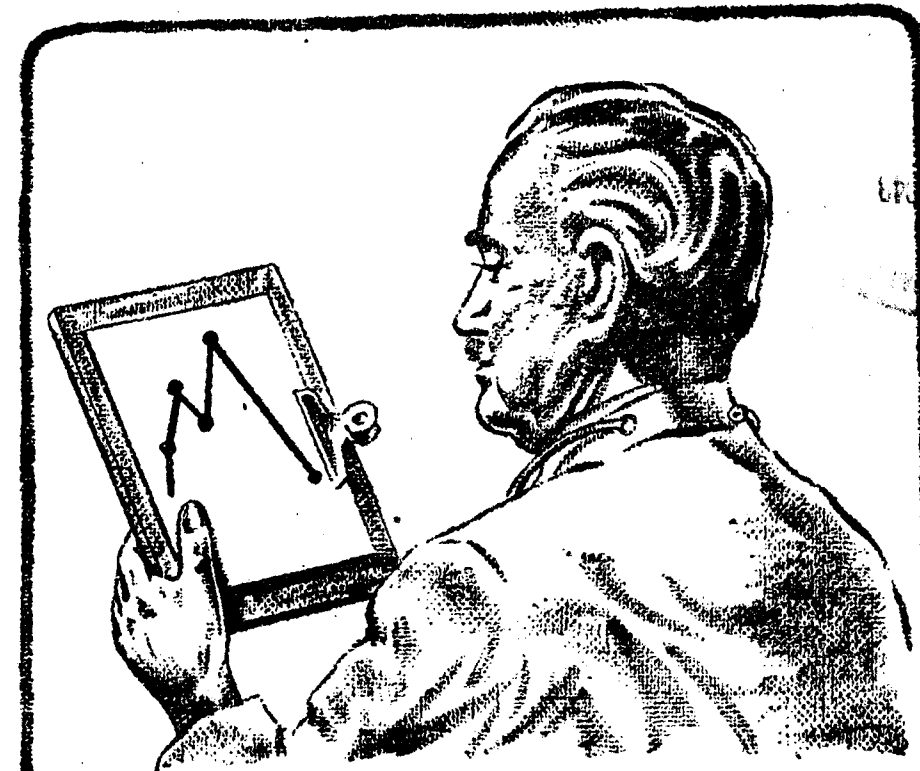
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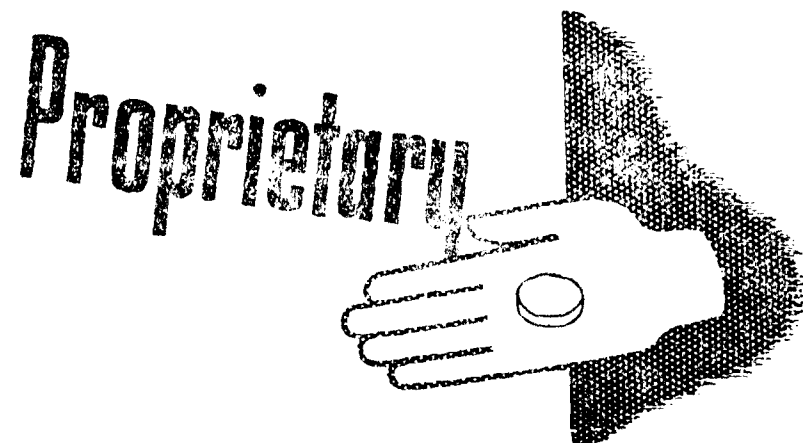
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THE MISCELLANY

JOURNAL OF THE SOUTH INDIAN BRANCH
OF
THE INDIAN MEDICAL ASSOCIATION

VOL. XIV]

MARCH 1948

[No. 9

"PEPTIC ULCER IN SOUTH INDIA"

BY

N. S. NARASIMHA IYER, F.R.C.S.,
Surgeon, General Hospital, Madras.

Operations for peptic ulcer are common in all the districts of South India including the Deccan plateau. The occurrence of peptic ulcer in the population of South India has been noticed from time immemorial. Yet the incidence of peptic ulcer in the populations of Punjab, U. P., Bengal and Bombay is reported to be very little. A surgeon of Madras who had considerable experience of peptic ulcer when in Bengal reported on its rarity there.

Surgical Specialists of the Indian army have noted that perforation of the duodenal ulcer was by far very common amongst the soldiers and personnel of South Indian units than from the other parts of India both in the base hospitals and front line hospitals.

While this is the experience here, it is common knowledge that 10% of the adult population of any European or American country at some time suffer from the disease and of this nearly 80% are men. Cases are recorded all over the world in infancy and childhood. Annually about four cases of duodenal obstruction in boys 12-16 come to the hospital indicating that there may be more cases of duodenal ulcer in this age period and that the ulcer begins at an early age. In two instances, I was able to follow up these youngsters from the age of nine

till they developed obstruction at eighteen and were eventually operated on. These are not to be thought of as hangover cases of congenital hypertrophic pyloric stenosis. Operative finding did not reveal any such pathology. It is my clinical belief that many cases of duodenal ulcer begin in a much younger age 9 to 15 and that most cases are seen with complications and distress in the second and third decade. A careful examination of school going population with these ideas in mind will be of value in arresting the progress of the disease.

The etiological factors have been enquired into in different countries for the past three decades with indefinite conclusions as to their relative importance.

No one profession or labour is exempt from the disease. Any work involving stress and strain is a great factor in the causation of the disease; the great incidence amongst the poor agricultural classes of our community who lead a calm placid life is difficult to explain. Exacerbations of the disease occur under conditions of nervous stress and increased activity. The great poverty of all the strata of the society with single meal a day and prolonged hours of starvation is a common factor. Many varieties of traumata are common, as,

(a) Physical improperly cooked food and uncooked food. (b) Chemical, habitual use of many strong medicines as quinine on empty stomach, salicylates, aspirin, mercurials and arsenic in indigenous medicine.

3. The great nutritional deficiency of the population. Many patients with peptic ulcer have low serum protein values; whether this is cause or effect is difficult to say probably it is the latter. Along with low serum protein values, the population is living in a dangerously low vitamin level. Same diet consist entirely of carbohydrates.

4. In addition to this there is a large incidence of ankylostome and other helminthic infections, and amoebic and bacillary dysentery affections. They are all imperfectly treated and they leave behind complications.

5. Within the past six years it has become increasingly common to meet with mesenteric lymphadenitis in nearly 90% of cases of abdominal operations in the hospital. This lymphadenitis occurs from duodeno-jejunal junction at the root of the mesentery; the glands are of varying size, and vascularity; they are met with in cases of pain simulating appendicitis, acute appendicitis and in other abdominal conditions. They are often associated with respiratory catarrh. The histological examination of these lymph nodes do not show anything except sinus catarrh, culture of the gland is sterile; these enlarged mesenteric glands alone are capable of producing abdominal pain; they may become inflamed and the small gut may become adherent leading to complications of obstruction. Whether these mesenteric enlarged glands have got anything to do with the causation of duodenal ulcer is very difficult to say. Careful observers like Pribram have concluded that this lymph stasis may lead to Cirrhosis of liver. Cirrhosis of liver is often an incidental finding in the third decades without symptoms in

these peptic ulcer cases. One cause of death is the cirrhotic liver and very minimum of surgery is indicated in these cases.

Tobacco chewing or smoking is uniformly considered as detrimental to an ulcer patient, many patients recording their exacerbations after the reuse of smoking habit which they had abandoned for some time. Nicotine paralyses the synapses of the sympathetic nervous system and excessive use of tobacco is bad. Whatever we wish to believe, we can find evidence in experimental work to prove our theory: ulcers have been produced by dividing the vagi and cured by dividing the vagi, they have been produced by ligating the gastric vessels and cured by ligating the same: they have been produced by transplanting patches of jejunum to the stomach wall and cured by jejunal transplants. The many factors which seemed to play a part have been mentioned. The one constant factor on which there is unanimity is that of acid. Finsterer's hypothesis was "where there is no acid there is no ulcer" peptic ulcer is common when acid is high, rare where it is low and unknown where it is absent. Though acid is associated with ulcer, it is not the cause. Most healthy men and women in the prime of life have a high acid level, but very few have ulcer. Even when they are fit their acid is high but they do not get ulcers.

It is the keen alert, sensitive man who is constantly driving himself who suffers from duodenal ulcer. The stimulation of inter brain and the occurrence of peptic ulcer, the common occurrence of duodenal ulcer in thyrotoxic patients led to the realisation of the influence of the mind and psychological factors in the causation of the disease.

Recently Wolff and Wolff have studied human gastric function (1943,

1944) on a patient with a large and prolapsed gastrotomy through which the responses of the stomach could be intimately observed. The gastric mucosa varies in colour from a faint yellowish pink to an intense cardinal red or the whole range of Tallquist haemoglobin scale. During the resting stage the stomach is pale and quiet, and acid is secreted in small amount. Colour, rate of secretion, and motor activity generally run parallel and all increase in preparation for eating at the mention of appetising food. The layer of mucus on the surface of the stomach is of great importance in affording protection from the corrosive action of the gastric juice. The normal gastric mucosa does not respond to irritation or stimulation with pain: the only pains which can be induced are the pain of heartburn, which is due to irritation of the lower end of the oesophagus by acid juice or similar stimuli and the pain of distension or strong contraction of the musculature. When the mucosa is congested and inflamed, intense pain occurs on the application of the usual stimuli and engorgement also lowers the threshold for muscle pain. The response of the stomach to drugs and other stimuli is much affected by the emotional stimulation. Sadness, discouragement, and self reproach were associated with prolonged pallor of the gastric mucosa, hyposecretion and hypomotility, anorexia and slight nausea were also observed. With resentment and hostility, the mucous membrane was turgid, engorged and redder than usual, the gastric secretion was much increased, and vigorous contraction occurred. Prolonged anxiety and emotional tension were accompanied by sustained hyperfunction of the stomach, which persisted during sleep; these phenomena occur during times of emotional conflict in peptic ulcer. The appearance of hyperfunctioning stomach are identical with those of gastritis: the folds are thick,

red, succulent and the slightest trauma or even vigorous contraction of the stomach results in appearance of red haemorrhagic spots or erosions. If hypersecretion continues and the mucous protection of the surface is diminished, erosions may develop into chronic ulcers. An inflamed area is in itself a stimulus for hypersecretion.

As animals do not develop peptic ulcer it is difficult to prove any of the theories.

The fact that mental worry and strain are important causes requires to be borne in mind in the treatment of duodenal ulcer.

One has to explain why an ulcer forms, why it forms in certain areas, what is the cause of the persistence of the ulcer or the tendency to recurrence.

There are predisposing factors which include tissue susceptibility and constitutional predisposition. There are precipitating factors which consists of hypersecretion, hyperacidity, focal infection and gastric traumata. The persistent hyperacidity and hypersecretion throughout the whole 24 hours and exposure of the duodenal mucosa to a small stream of acid—the jet mechanism explains the frequency of duodenal ulcer in the men. Women possess a flatter type of duodenum which allows more certain quick neutralisation of acid and thus the incidence of the disease is much less frequent. Women during pregnancy get quiescence of the disease and thus an endocrine factor also is involved.

As regards treatment there is no doubt that the South India average patient requires careful medical treatment for his anaemia, hypoproteinaemia, and for deficient vitamins and for ankylostomiasis and round worms. Oro-nasal sepsis should be looked for and if present eliminated.

Fractional test meal examination is very valuable. Radiology does not help much in diagnosis or the follow-up, whether the ulcer has healed.

Neutralisation of acid by various drugs and control of mind by sedatives as phenolbarbitone are the two essential steps. Feeding, hourly or two hourly with milk in the acute stages is essential.

Operative treatment becomes essential, when 1. It is imperative as a life saving measure in perforation. 2. In severe haemorrhage operation is required three weeks after the patient has been tided over the effects of haemorrhage. 3. There is duodenal obstruction and 4. There is repeated haemorrhage.

In duodenal ulcers operation may give comfort in cases of persistent pain which indicates adhesions to other

organs unrelieved pyloric spasm, and repeated failure of medical treatment.

The type of operation which is done in duodenal ulcer has changed; with hyperacidity it has become necessary to do gastrectomy and gastro-duodenal resections. Ligature of vessels has not reduced the acid.

Patients with gastro-jejunal ulcer come back from anywhere near six months to ten or twelve years after the operation of gastro-jejunostomy. Gastrectomy and gastro-duodenal resections have minimised a great deal this complication of gastro-jejunal ulcer. These procedures have not abolished the complication entirely. Therefore while 80 to 90% may go about without much after treatment it is necessary to keep them under some sort of regime which will give them regular meals, some rest after meals and freedom from worry.

Lecture delivered at the 2nd South Indian Provincial Conference, Coimbatore on 17-10-47.

INDIAN MEDICOS IN FOREIGN COUNTRIES

A case has come to the notice of this office in which it is alleged that a medical practitioner recruited from India by a foreign employer found the conditions under which he had to live and work different from what he was led to believe would be available to him. It is accordingly suggested that it may be impressed upon the members of your Association, say through your journal or otherwise, that they should not accept employment under a foreign employer unless your Association is

satisfied that the terms offered are suitable and that their faithful observance is guaranteed. I am suggesting to Government that they should similarly assure themselves whenever any Indian Medical Practitioner is recruited for service abroad through them.

If the above procedure is followed it may be possible for the representatives of the Government of India in foreign countries to render such assistance as they can to Indian Medical Practitioners serving in those countries.

(Copy of letter No. 47-57/47M dated 29th Nov. '48 of the Director-General of Health Services to the President, Indian Medical Association, Calcutta.)

March 1948]

PUBLIC HEALTH MEASURES IN MADRAS PRESIDENCY

The Hon'ble Mr. A. B. SHETTY,

Minister for Public Health, Govt. of Madras.

The improvement of public health is of paramount importance in any plan for the future development of the country. The ill-health and premature death so common among our people offers a striking contrast to the high standards of health and length of life enjoyed by the people in many of the Western countries. The rate of mortality here is double that of most other civilised countries. The average expectation of life is more than 60 years in several of the Western countries while here it is only about 27. This shortened span of life is spent mostly in sickness, suffering and sorrow. The largest number of deaths take place among infants and children. Half the number of children die before the age of 10. Yet the birth-rate is so high that our population continues to grow at a disquieting rate and this is in marked contrast with the decline in the growth of population in the West. This high birth-rate and the high death-rate which goes along with it means an appalling waste of human life and effort. The rapid increase in our population is widening the gap between the available quantity of food and the number of people to be fed. The low standard of health in our country may be traced mainly to unhealthy conditions of living, improper nutrition inadequacy of healthy services and lack of education. The root cause is poverty and the low standard of life prevailing among the vast masses of our people.

In this Province we have 35,430 villages where 84 per cent of our people live. The great majority of the rural houses are unfit for human habitation. There is practically no conservancy or sanitary service in the villages. The soil is polluted by indiscriminate defecation and often water also is contaminated on account of people using the bank of a stream or the margin of a tank as a public latrine. In most places the drinking water available is either inadequate or unsafe for use. The great mass of the village population lead half-starved lives. Many unhealthy

habits and practices prevail among the people due to want of health education. The environmental conditions are hardly better in urban areas. Our towns have grown in a haphazard way without any planning. The housing conditions are most unsatisfactory. Slums and overcrowding make the situation worse particularly in industrial areas. Thousands live on pavements of roads. The collection and disposal of refuse and excreta is not done properly. The number of private and public latrines is far below the requirements. Protected water-supply is available only in 46 of our municipalities. In 40 out of these 46 towns the supply is either inadequate or it does not cover the whole area. Drainage facilities have been provided so far only in 7 cities in this province but they are all partial schemes. Dusty roads are a source of great nuisance and danger to health in our towns. Flies and mosquitos are found everywhere carrying infection. The major cause for the poor physical development and chronic ill-health of our people is undoubtedly faulty nourishment. Resistance power is weakened by lack of proper nutrition and they easily fall a prey to infectious diseases. If they don't die a premature death, they lead an enfeebled existence and their productive capacity suffers a great deal.

In the health programme so far followed in this country we have given precedence to the establishment of hospitals and the production of doctors. More emphasis has been laid on the cure and the alleviation of disease rather than on the prevention of illness and the improvement of health. As observed by a Committee of the British Medical Association, modern medical practice tends to stress more and more the importance of the environment and the methods of preventing disease and maintaining health. Good health is not entirely, or even mainly, a question of medical services. It does not depend so much upon hospitals or doctors or bottles of medicine as upon a suitable environment, adequate nutrition and the adoption

of the rules of healthy living. Great results have been achieved in Great Britain by the improvements made there in the field of sanitation, hygiene, water-supplies and housing. The great epidemic diseases have been practically conquered. Death-rates have been considerably reduced and the average length of life has gone up by many years. Factory legislation has led to better conditions of work. The newer knowledge of nutrition has enabled them to raise the standard of health in the nation.

While we need not relax our efforts to provide proper medical aid, particularly to the rural population, the time has come to give increased attention to preventive measures. The lay-out of our towns, the construction of hygienic dwellings, the production and supply of more and better food, the provision of protected water-supply and drainage and such other health-creating services are of paramount importance for raising the standard of health and fitness in our people. The extent of sickness prevalent in the country is so large that we cannot hope to provide beds for more than a fraction of the people requiring hospital treatment even if we are able to multiply several times the number of our hospitals and dispensaries. The reduction in the demand for curative treatment can be secured only through successful preventive work. With the limited staff and funds that are now available to us we can achieve more effective and lasting results by creating conditions of healthful living instead of concentrating too largely on the expansion of medical relief work.

There is no doubt that increase of food production is the most important single measure required for the maintenance of life and health. The "Grow More Food" campaign started during War time is, therefore, being steadily pursued and large funds are being allotted for providing major and minor irrigation works and for supplying more manure and better seeds to the ryots. The area under all food crops has increased from 26.43 to 27.63 million acres. This means an increase of 1.20 million acres. Diet surveys and nutrition research work are being carried on. A housing scheme has been launched and

Co-operative House Building Societies are being organised for this purpose. The amendment of the Town Planning Act is under the active consideration of a Committee with a view to make it more effective in determining the physical conditions under which people have to live and in controlling the future development of our towns. The eradication of slums, the abatement of over-crowding and the provision of new decent houses at low rents must form a part of our national health policy. The most outstanding problem connected with the improvement of public health is the provision of adequate and safe water-supply and proper drainage system for our towns and villages. The Committee constituted in last June to consider the question of expediting the investigation, design and execution of urban and rural water-supply and drainage schemes have submitted their report to the Government. They want that the state must assume the entire responsibility for the provision of water-supply and drainage all over the Province and that a ten year plan for water-supply and fifteen year plan for drainage should be programmed and followed and that a public health engineering department should be organised for the purpose. The report has been made available to the public and suggestions have been invited from persons interested in the matter by the end of this month. Government will soon have to consider the far reaching recommendations made by the Committee and take necessary steps in the matter. Government have already constituted a rural water-supply fund of rupees one crore and they propose to make a contribution of 15 lakhs of rupees every year for this purpose. Improvement of nutrition and provision of suitable housing and good drinking water will do more than anything else to prevent ill-health and to reduce the need for costly, and often unsatisfactory, curative services. These will have, therefore, to be given high priority in our health programme. A conference of eminent medical and public health experts both official and non-official was convened in June, 1947. They discussed a wide range of subjects relating to medical education, medical relief and Public Health work. Two sub-committees which were formed at the conference for a detailed study of these pro-

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blems have made important recommendations which will soon be considered by the Government. Government have in the interest of medical education given their approval to all the expansion schemes relating to the Stanley and the Andhra Medical Colleges and the attached hospitals. When these building schemes are completed each of these colleges will be able to take in 100 medical students every year. A College of Indian Medicine has been started this year with 50 students. It has been proposed that the School of Indian Medicine also should continue to be run alongside the College. Steps are being taken to provide the additional buildings, staff and equipment required for the expansion of this teaching institution and to start a research department also.

The needs of rural India have long been neglected. The establishment of combined medical and health centres in villages linked with Taluk and District hospitals has been proposed with a view to bring remedial and preventive services within the

reach of the people in rural areas. Government have sanctioned the opening of these primary centres at the rate of 30 every year.

The post-war schemes of health development are awaiting to be implemented. There is a twenty-year plan for the reconstruction and improvement of District and Taluk Headquarters Hospitals and for adopting further measures for combating tuberculosis, leprosy, malaria etc. The main difficulty in carrying out our post-war plans which have been suitably modified in the light of the proposals of the Bhoré Committee is lack of finance. Government will have to augment their income and spend a larger percentage of their revenues on health measures. As pointed out by the Bhoré Committee, "A nation's health is the most potent single factor in determining the character and extent of its development and progress and any expenditure of money and effort on improving the national health is a gilt-edged investment yielding immediate and steady returns in increased productive capacity".

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MEDICAL FEES

BY

Mr. T. N. S. RAGHAVACHARI

(Retired Public Health Bacteriologist, Madras)

The first statement of medical fees dates back to about 4000 years ago. An interesting document discovered in 1902 by a French Archaeologist at Susa consists of laws engraved on a block of stone nearly eight feet high. They give common-sense decisions on almost every social problems from divorce to compensation for injury. Among other matters, there is the regulation of physicians fees in this *Code of Hammurabi*, set forth by *Aramaphel*, sixth king of Babylon. This is probably the same person mentioned in the Book of Genesis. The old King estimates and codifies a physician's services as under:

- (1) Five shekels of silver (about $7\frac{1}{2}$ silver rupees) to be paid by the rich patient for setting a broken bone.
- (2) Three shekels ($4\frac{1}{2}$ Rs.) for the same service, if the man is from the middle class.
- (3) If the patient is a slave, the owner shall pay 2 shekels (Rs. 3).

The true value of this scale of fees can be estimated only from the buying power of money at the time. Ten shekels of silver (Rs. 15) was the average yearly wage of an ordinary workman, as set forth in the Code. So, the fee of five shekels was half this yearly wage—Translated into present day values, the fees would be about a hundred Rupees—which according to modern standards is a very high fee for simply setting a bone. In the same Code there were also regulations which kept unqualified and unskilled men from practising surgery.

We hear today of an occasional fancifully large fees paid to a specialist but

none compares with the one that King Proteus of Argos had to pay Dr. Melampus who cured the King's two daughters of hysteria. These two young girls ran wild in the forest under the delusion that they were cows! The disease spread by sympathy to other young women in the state and soon assumed an epidemic form comparable to the outbreak of Dancing Mania in Italy in the middle ages which was controlled by music specially composed for the occasion—called Tarantellas. Dr. Melampus who was called in to treat the Royal princesses gave them white hellabore,—once vaunted as a cure for Insanity but now used only as an insecticide—and then had the girls pursued by young men until they fell exhausted. They were then given a bath in a spring fountain and “discharged cured”. As a reward King Proteus offered the physician the hand of one of his daughters and a third of his kingdom. But Melampus sent in a bill for two daughters and two thirds of the kingdom. He was paid in full and the doctor divided the fee with his brother.

Darius the great Persian King of 5th Century B. C. had a sprained ankle which was treated by his Court Physician, without giving any relief. The rough ministrations indeed made him worse and sleepless. Some one told Darius that amongst his Greek captives was the famous physician Democedes. He was brought before the king clad in rags and his arms bound in chains. Democedes applied soothing remedies and gentle massage to the ankle and the pain and swelling subsided. In gratitude, the King replaced the iron chains with two pairs of golden handcuffs set with costly gems.

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MEDICAL FEES

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The ancient Greeks had developed a rational medical system long before the Romans and the former carried their medical practices into Rome in the teeth of considerable opposition in 200 B. C. The warlike Romans had a form of religious healing in which they invoked the aid of the deities of whom there was one for every disease and indeed for every stage of the disease. Even the itch was not without its Goddess. Here in our own country, nearly 2000 years after the birth of Christ we still cling to the belief in evil spirits and deities causing diseases, *Mahamari*, *Mahakali*, *Mariyamman* and so on. The ancient Romans had never paid fees for having their sick healed. The votaries to the Gods and deities, had been voluntary—as is still the case amongst our old women in India—and these probably consisted of promises of rich and varied offerings and rewards, while the illness lasted, but only slight compensation on second thought after the illness was over and quite logically no offering or reward at all if death resulted, or if it was found even slightly inconvenient to find the means. The doctors who migrated from Greece to Rome levied and collected fees and this greatly enhanced the value and virtue of the treatment—for what costs money must be worth having. Many of the Greek physicians became fabulously wealthy and contributed extensively to beautifying the city with civic amenities.

During the middle ages doctor's fees were very high in the American States. The charge for two visits was about eight or ten cents (4 or 5 annas). The daily wage of a labourer at that time was about the same as also the cost of a pair of shoes. In modern American money, the bill will be five to seven dollars (Rs. 15 to 20). Christopher Columbus on his first voyage took with him Dr. Bernal as his medical attendant and paid him about 40 dollars for his services (Rs. 120) or about 8 annas a day. Surgery in early Europe was

in a precarious condition as few decent qualified medical men cared to take to it as this involved jeopardy to life and limb. In 500 A. D. a King of Burgundy had two eminent surgeons executed on the tomb of his wife, who could not be saved in spite of the best efforts of these surgeons. In 1337 a famous surgeon was thrown into the river Oder as he failed to cure a Bohemian prince of his blindness. Then we read of an announcement in 1464 by the King of Hungary offering a reward to the surgeon who could cure him of an arrow wound and the penalty of the scaffold in case he failed. Even a religious head Pope John XII is reputed to have flayed alive a surgeon of Florence who failed to cure him of a malignant malady. When this Pope ultimately died, the Pope's friends burned the Surgeon who failed to keep the Pope alive.

Some reputable Surgeons of those times undertook only cases where they were certain of effecting a cure. An English Surgeon of the 14th century charged 30 guineas for a minor operation on a nobleman with an additional fee of 3 guineas and a suit of warm clothes for each year the patient lived—money then had 20 times the purchasing power that it has at present.

Coming down to modern times, we find an occasional heroic and fabulous fees such as that which Dr. Dunsdale received from Catherine the Great of Russia for inoculating her and her son against small-pox. The sum was equivalent to a lakh and a half rupees with an additional Rs. 30,000 for expenses and two lakhs of rupees as an annuity for life and the rank of a Baron. This was in the latter part of the 18th century. In the United States of America a regular codified schedule of medical fees was brought into effective operation in the latter part of the 18th century.

In India every Prince's court in ancient times, had a court physician

who was greatly respected and received a handsome annuity and rich presents. In the system of medical fees in vogue in villages, was payment every year in kind by every family.

In China, there is reported to be in vogue a system whereby the family doctor of each family gets an annual handsome fee—payable quarterly—so long as there is no illness in the house and loses his fee in proportion to the ailments he has to treat.

This is the real principal of preventive medicine. In our own country only a few upper class families engage or utilise the services of a family physician who calls at regular intervals if not every day and ascertains the state of the health of the members of the family. The cost of medical care to the State can be greatly reduced if the people generally learn to consult their family doctor even when they are

apparently well, to make sure that the health audit reveals no latent or potential focus of disease. The money spent by all classes of people on luxuries (like cinemas, hotels, motor cars, etc.), is indeed, much more than the amount spent by them in medical care.

Prevention of disease has a tremendous value not really appreciated by people. Disease is preventable, death is postponable and health is purchasable. The money that buys health and postpones death is spent for prevention. If you consider these for a moment you will see how indifference to prevention adds greatly to our cost of medical care. In preventive medicine therefore particularly personal preventive medicine and annual health audit for each individual by a competent doctor, there is the means of saving money, suffering and lives. What we are now spending on medical care is in reality the high cost of indifference to preventive medicine.

Reproduced from "Peoples Health" Madras.

APPOINTMENT OF HOUSE SURGEONS

Madras, March 6, '48.

The Government propose to increase the number of the posts of unpaid House Surgeons in the Hospitals in the Province to enable candidates applying for the posts to undergo practical training.

At present, House Surgeons are taken in nine hospitals in the City and in seven hospitals in the districts.

Paid posts total 147, of which 23 are reserved for ex-service men. The total number of unpaid posts is 105.

Of 179 candidates who applied for posts of House Surgeons this year, 5 were selected for paid posts, and 6 for unpaid posts. Twenty-five candidates are placed in the reserve list to fill in vacancies (seven paid posts and 18 unpaid posts).

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MEDICAL PAY OF MEDICAL OFFICERS

The Special Committee of the I. M. A. consisting of Col. Amirchand, Dr. R. C. Goulatia, Dr. Chamanlal Mehta, Dr. S. C. Sen and Dr. P. A. S. Raghavan suggested and the Working Committee recommended to the Govt. of India as follows:—

1. The present recommendation of the Sub Committee for Medical employees of the Central Govt. (including those in Ry. Medical Service) should be treated as fundamental and basic of all medical services whether under Provincial Govts., Local Bodies or Private Employers.

The following cadres were recommended.

1. **Special Grade:** For heads of depts. (e.g. Chief Medical Officer Rlys.) Rs. 1800-Rs. 2000.

(2) **Class I.**

Senior Scale. (e.g. Dist. Medical Officer of Rys.) Rs. 800-Rs. 1600.

Junior Scale. (e.g. Asst. Dist. Medical Officer—who should be renamed as Dy. Dist. Medical Officer.) Rs. 350-Rs. 900

(3) **Class II.**

Senior Scale. (e.g. Asst. Surgeon who should be renamed as Senior Medical Officer.) Rs. 275-Rs. 800.

Junior Scale. (e.g. Asst. Surgeon Grade II who should be renamed as Junior Medical Officers.) Rs. 200-Rs. 500.

It was also recommended that in view of the exacting nature of the technical work required to be done by the Medical Officers in their professional capacity which involved extra hours of work amounting often to 24 hours' service and deprivation of scheduled holidays and Sundays enjoyed by other workers, the medical officers should be entitled to a special allowance amounting to 25% of their basic pays.

In making these recommendations, the committee was guided by the consideration that as a matter of principle the medical men should be entitled at least to the same stan-

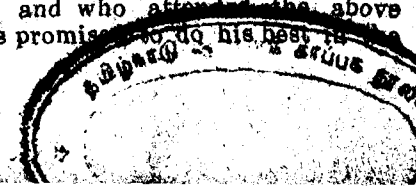
dards of remuneration as those recommended for the All India Administrative Service and Foreign Service by the Pay Commission.

The Commission have acknowledged that there is considerable disparity between the present pay of the Sub Asst. Surgeons and Asst. Surgeons which is out of proportion to the difference on their qualifications. They have only suggested to change the nomenclature of the Sub Asst. Surgeons to Asst. Surgeons Grade II. Our Committee considers it strange that in these circumstances the Commission should recommend for them a scale (Rs. 100-230) the maximum salary in which is lower than the minimum salary in the scale for Graduates (260-500). What was more anomalous and unjust was that the scale recommended for those Licentiate Doctors is actually inferior than those recommended for Sisters, Nurses and Matrons who are expected to be subordinate to them.

If the scale of pay offered to those doctors is lower than those offered to the Auxiliary Personnel referred to above discipline and utility of work is also likely to be impaired. In consideration of these the Committee recommends a more liberal scales of pay for the Licentiate Doctors and suggested that they should be classed as Class II Medical Officer in the Junior Scales.

The Committee also recommended that all Medical Officers should be ranked as 'Gazetted Officers' irrespective of their cadres. This is only fair as officers in other services are given this privilege which is denied to a medical man who is a technical personnel with high educational qualifications.

Dr. Jivaraj N. Mehta, the Director General of Health Services and the Secretary to the Ministry of Health, Govt. of India, who is also a member of the Working Committee, and who attended the above meeting has promised to do his best in the matter.



Kurushethra

Refugee Camp

Kurushethra is now really the Dharma-khethra as was stated in the first stanza of the Lord's Song. No greater Dharma is now being done anywhere in the world than here.

A bird's eye view of the thousands of tents seen on either side of the road leading to the holy tank and the Dharmasalas makes one feel that he is living in the days of Dharma Yuddha with a modern touch given by the presence of tents, and instead of war there is peace and rehabilitation of refugees from the madness of communal war.

The refugee camp now shelters over a lakh and sixty thousand souls, though at the peak time it housed nearly 3 lakh of refugees. To dole out food and fuel for this enormous population is a task that could not have been possible but for the energy and capacity of any but the Nehru National Government assisted by a band of selfless and patriotic workers of the centre. The refugees are gradually resettled in different parts of the country and so the camp is thinning slowly. An enclosed portion of the camp is formed into a rehabilitation centre where there are thousands of handlooms plying, a carpentry and smithy in full swing, and village industries like mat and basket making, soap making etc. are trying to meet the needs of the camp, and train the displaced folks to take to new avocations.

The need to cater to the health and well being of these lakh of people and prevent epidemics amongst these physically and mentally tortured populace with low powers resistance, was a herculean task. Thanks to the great powers of organisation and the skill and drive of our past President, Dr. Jivaraj N. Mehta the Director General of Health Services and the Secretary to the Health Ministry, no serious epidemic has broken out in the camp. This has been possible by the fact that vigilant

public health measures are carried on. The only approach to the camp by road is strictly guarded both by the police and health staff. Nobody is allowed to pass the chowki unless he is vaccinated or shows a certificate of recent vaccination against small pox or has marks of recent successful vaccination. In addition, all passengers are sprayed with D. D. T. atleast upto the hip and all luggage is treated likewise. Even the wheels of cars and buses are sprayed to prevent the carrying of any infection. There is protected water supply for the camp and conservancy is attended to efficiently.

To meet the demands of such a large population a large 1000 bed hospital has been organised. The two big Dharmasalas of Patiala and Nabha are the main centre of the hospital and improvised sheds are put up to accomodate the patients. The hospital is well equipped for treating all kinds of diseases, though the equipment ranges from country cots and charpoys to the latest American cots and rubber mattresses. Every department is fully equipped and staffed by efficient and sympathetic specialists in every branch. The spade work in organising the hospital was done amongst others by our colleague, Lt. Col. R. Viswanathan, B.A., M.D., M.R.C.P., T.D.D., F.A.C.S., now in the Ministry of Health. Our worthy President, Lt. Col. Amirchand is now in-charge of the hospital and is ably assisted by over 50 doctors and nearly 100 nurses and sisters whose services have been lent from the various hospitals in India. There are a number of refugee doctors working in the hospital and a nurses training class is run to give training to refugee girls who are interested in taking up this profession.

The efficient running of the camp and hospital is another indication of our capacity to manage our own affairs.

P. A. S. RAGHAVAN.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

Scleroderma.—J. A. M. A. Feb. 22 '47

Q. What is the latest treatment of scleroderma?

A. Living in an equable, warm climate is helpful in the treatment of scleroderma. Physical therapy is useful including massage heat and contrasting baths and percutaneous electrical transmission of mecholyl. Large enough doses of vitamin D to achieve a negative calcium balance have been recommended by Cornbleet and the use of preparations of pancreas by Sellar. Thyroid has been found helpful in some cases, as well as posterior pituitary extract injection. O'Leary and Waisman recommended neostigmine. Gold salts as well as bismuth preparations have been tried. A number of reports praising the effectiveness of bismuth for localized scleroderma have appeared. It is hoped that this agent will prove as useful in the generalized variety. Surgical intervention has been both lauded and condemned. Sympathectomy and parathyroidectomy have been followed by rapid improvement. It appears, however, that these favourable responses are but temporary.

Prolonged interval between Pregnancies. J. A. M. A. Feb. 22, '47.

Q. Is there any factual basis to support the belief that a second pregnancy may be especially hazardous after an interval of fourteen years? The first pregnancy was normal but was complicated post partum by a breast abscess. The woman is now 36 years of age, in good health and without any pelvic abnormality.

A. The length of the interval between pregnancies does not have an appreciable effect on a subsequent pregnancy. The hazard of a second pregnancy fourteen years after the first one is not increased provided there has been a change in the patient's physical condition. However, age is an important factor in childbearing. Older mothers are more likely to have hypertension vascular-renal disease and other physical handicaps which may complicate pregnancy.

Treatment of Pulmonary Embolism. J. A. M. A. Feb. 22, '47.

Q. A white woman aged 28 had a typical attack of pulmonary embolism on the tenth day following pelvic surgery. The pulmonary embolism was accompanied with signs of severe shock, including profuse perspiration, clammy skin, profound fall of blood pressure and a rapid, scarcely palpable, pulse. What is the treatment of shock, in such a case? Is there any objection to stimulants such as epinephrine, caffeine or metrazol? Can stimulants dislodge the first embolus or cause additional embolic attacks?

A. Shock following pulmonary embolism is due to mechanical obstruction of the pulmonary circulation which in many fatal and unusually severe cases involves both the right and left pulmonary arteries by means of a "saddle embolus." Reflex nervous phenomena may contribute harmful effects, perhaps through distention of the artery by the embolus. It is interesting that shock and harmful reflexes do not occur when the pulmonary artery is surgically ligated in the course of pneumonectomy.

The most useful immediate treatment of pulmonary embolism consists in hypodermic injection of morphine and inhalation of a high concentration of oxygen by catheter, tent or mask. The stimulants ordinarily used in the treatment of so-called surgical shock are not likely to be of value in pulmonary embolism and may prove harmful when the right side of the heart is over-loaded. Papaverine has been recommended for the reflex nervous phenomena that may be present. If the patient survives the immediate attack, heparin or Dicumarol (3-3' methylene-bis-hydroxycoumarin) should be given intravenously to prevent propagation of thrombi, and the thrombosed vein that was the source of the embolus should be ligated on the cardiac side of the thrombus. An emergency operation to remove the pulmonary embolus after incision of the pulmonary artery in severe cases has been successful in a few instances.

Administration of Thyroid. J. A. M. A. Feb. 22, '47.

Q. Is there any advantage in prescribing thyroid in divided daily doses rather than in a single daily amount?

A. The action of desiccated thyroid is so prolonged that there is no advantage whatever in prescribing the daily dose in divided portions. It works just as well when the total amount for the day is given in one dose. In a patient with myxedema it takes three to ten days for the effect of a single dose of 10 mg. of thyroxine on the basal metabolism to become maximum and from seventy to ninety days for the effect on the basal metabolism to wear off.

Value of Gastric Lavage in treatment of acute poisoning. J. A. M. A. Feb. 22, '47.

For a century gastric lavage has been used in treating acute poisoning. Except for some adjuvants, such as use of an appropriate solvent, an absorbent, such as charcoal, or neutralizing agent, changes have not been made in this procedure. Its value has not been questioned nor its efficiency doubted. However, a systematic examination of the procedure was made in 1942, for the first time, by Harstad, Moller and Simesen of the Pharmacologic Institute of the University of Copenhagen and of the Psychiatric Department of the Bispebjerg Hospital in Copenhagen with results which indicate its inefficiency and the desirability of more scientific consideration of procedures in acute poisoning.

Here are the general conclusions to be derived from the laborious and highly commendable work by Moller and his associates: Gastric lavage is generally inefficient and often valueless in cases of acute poisoning; its efficiency can be increased by use of relatively small volumes of fluid; gastric lavage promotes passage of a poison into the intestine; when four hours has elapsed after a poison has been taken, lavage is only exceptionally effective; the bulk of a poison leaves the stomach rapidly, especially in suicide; who often take it on an empty stomach in conscious persons evacuation by emesis with the aid of apomorphine is superior to lavage; lavage is generally contra-

indicated in unconscious persons but, if done, should be combined with aspiration; absorption of poisons on the gastric mucosa is important only with heavy metals and a few other substances, removal of these being preferably done by aspiration of contents followed by lavage with 1 to 2 liters of water containing 10 gm. of charcoal per liter. This time honored method cannot be advantageously applied without recognition of equally time honored principles of physical chemistry and physiology.

Streptomycin:—*Journal of The Medical Clinics of North America.*

Despite the fact that a number of antibiotic substances have been demonstrated to have an inhibitory effect on the growth of the tubercle bacillus in *vitro*, only one so far, streptomycin, has been found to have any beneficial effect in the treatment of tuberculosis in man.

In January, 1944, Schatz, Bugie and Waksman announced that they had obtained an antibiotic substance they called streptomycin from the fungus *Actinomyces (Streptomyces) griseus*, and in November 1944, Schatz and Waksman reported that streptomycin exerted a bacteriostatic effect on a human strain of *Mycobacterium tuberculosis*. A short time later, Feldman and Hinshaw were the first to demonstrate that streptomycin had a striking therapeutic effect on experimental tuberculosis in guinea pigs, apparently without causing any demonstrable toxic reactions.

Hinshaw and Feldman began clinical trials with streptomycin on tuberculosis patients in the fall of 1944. Since that time, the Mayo Clinic and Foundation investigators have had continuous experience with the drug in the treatment of practically all forms of clinical tuberculosis although the number of cases treated of some of the less common varieties of the disease are still relatively few.

In 1946, Hinshaw, Feldman and Pfuetze reported their observations and results on 100 cases of tuberculosis treated with streptomycin. Among these were patients with miliary and tuberculous meningitis, pulmonary tuberculosis, tuberculosis of the larynx and bronchi, empyema, cutaneous fistulas, tuberculosis of the genito-urinary tract, bones and joints, surgical pulmonary tuberculosis, and miscellaneous types of the disease.

In the cases of miliary tuberculosis and tuberculous meningitis, six of the twelve treated patients had died at the time of the authors' report (1946). Of the six living patients, four were regarded as having "arrested" meningitis. Neurological disturbances were present in three of these. One patient was blind, one deaf and the third had profound cerebellar dysfunction. The authors recommended that streptomycin be given by both the intrathecal and intramuscular routes for tuberculous meningitis, and stressed the importance of early and prolonged treatment with large dosage. They also pointed out the possibility of relapse even after apparent clinical arrest of the meningitis.

Thirty-two patients with "nonsurgical" pulmonary tuberculosis were treated; all had moderately or far advanced disease. Treatment was over a period of two to six months, and 1 to 3 gm. of the drug was given daily. Results reported were as follows: (1) roentgenographic improvement in twenty-five cases; (2) cavity closure in twelve; (3) sputum conversion in thirteen (culture or guinea pig inoculation), and (4) five patients died.

Improvement was noted in five of seven patients treated for ulcerative lesions of the respiratory tract (pharynx, larynx, and large bronchi.) The results in seven patients treated for tuberculous empyema but not encouraging. In fifteen cutaneous fistulas, favourable

results were noted within four to six weeks. However, the fistulas recurred in about one third of the cases. The authors found streptomycin to have a palliative effect in tuberculosis of the bladder and kidney, but no curative effect was observed. Five cases of bone and joint tuberculosis were treated with improvement in four. Streptomycin was also given preoperatively and postoperatively to seven patients having thoracic surgery for pulmonary tuberculosis. The drug seemed to "contribute substantially" to the recovery of all seven patients.

The authors concluded that, in many instances, streptomycin appears to suppress tuberculosis rather than eradicate it. Its action seems to be bacteriostatic rather than bactericidal. They also emphasize that toxic manifestations may occur particularly when large doses are used over a long period of time. The most severe and frequent toxic reactions, including deafness, seem likely to occur in patients with meningitis, requiring intrathecal as well as intramuscular injections.

Baggenstoss and others reported on the effect of streptomycin on the lesions of miliary tuberculosis in five cases which came to necropsy. The authors state there was convincing evidence of regression and healing in the miliary tubercles of the lung, liver and spleen in all cases except one. This case received treatment for only a few days. They described healing as the "occurrence of fibrosis, hyalinization and absence of caseation in the miliary tubercles." However, tubercle bacilli were demonstrated in the tubercles in three of the five cases.

McDermott and associates recently reported on the results in forty-one cases of pulmonary and miliary tuberculosis and tuberculous meningitis treated with streptomycin at the New York Hospital. They used highly purified streptomycin in large doses, and investigated particularly the toxic effects of

the drug. Their results closely parallel and confirm those reported by Hinshaw and the Mayo group.

During the past year and a half, a large number of tuberculosis patients have been treated by the Veterans Administration under the administrative leadership of Doctors John B. Barnwell and Arthur M. Walker. Recently, a preliminary statement concerning the "Effects of Streptomycin upon Tuberculosis in Man," prepared by the Central Office of the Veterans Administration, the offices of the Surgeon General of the Army and the Navy indicates that the therapeutic results obtained and toxic manifestations observed by these groups are quite comparable to those previously noted by the Mayo and Cornell groups.

Of unusual interest is the report on tuberculous meningitis treated by the Veterans group and read by Dr. Paul Bunn as part of the streptomycin symposium presented at the 1947 Annual Meeting of the American Trudeau Society, Medical Section of the National Tuberculosis Association. Bunn reported that of seventy-one patients with tuberculous meningitis treated with streptomycin, approximately one third died within six weeks after treatment was begun. However, sixteen of the patients are now clinically well after completion of treatment and the spinal fluid is negative on culture for tubercle bacilli but still shows a high protein content and an elevated cell count. Two of the sixteen patients are dead. The remarkable results obtained by the Veterans' Administration in this usually fatal type of tuberculosis indicates the possible salvage of approximately 21% of patients so affected if treated early and adequately with streptomycin.

Stimulated by the encouraging results obtained by the Mayo and New York Hospital groups, the American Trudeau Society undertook a large-scale streptomycin research project in the fall of

1946, being generously aided by the streptomycin producers who donated a large amount of the drug to the Society, by the Research Grants Division of the National Institute of Health, U.S. Public Health Service and by the National Tuberculosis Association.

The results of the Trudeau Society investigators have not been published, but a preliminary report was given by several members of this group as part of the recent streptomycin symposium of the Society. These reports also closely parallel and confirm the earlier studies of the Mayo and New York Hospital groups.

One of the greatest disappointments thus far encountered in the streptomycin treatment of tuberculosis is the frequent tendency of the tubercle bacillus to become resistant to the drug when therapy is prolonged. Youmans and his associates report that tubercle bacilli from eight of twelve patients treated with streptomycin developed resistance to the drug 500 to 1000 times as great as that of cultures taken before treatment. Further work on the development of resistance to the drug on the part of the tubercle bacillus is now in progress, particularly among the Trudeau Society investigators. It would appear, at present, that the early development of marked resistance of the tubercle bacillus to streptomycin, in vivo, might significantly limit the beneficial effects of the drug.

However, before the tubercle bacillus becomes resistant to streptomycin, the remarkable suppressive effect that the drug has been shown to have against both experimental and human tuberculosis, notably acute and ulcerative tuberculous laryngitis and bronchitis, and against the more acute and subacute exudative pulmonary lesions, and particularly its unprecedented effect on tuberculous meningitis and miliary tuberculosis, even though a great majority of these latter cases relapse and

have a fatal termination, have already won an important place for streptomycin in the treatment of tuberculosis in man.

Experience to date also seems to indicate that, in selected types of pulmonary tuberculosis, streptomycin is likely to prove of greatest value, not as a therapeutic entity charged with the "cure" of the disease, but as an important ancillary agent to be employed with discretion and judgment, in combination with other proved methods of treatment. It would also seem that the proper timing of its use, particularly in conjunction with pneumothorax and certain major thoracic surgical procedures and to combat acute, life-threatening episodes such as posthemoptoeic and postoperative lobular and lobar tuberculous pneumonia, will require a type of clinical judgment that comes from an understanding of the varied potentialities and complexities of the disease. The optimum timing and best use of streptomycin will not only require objective and careful planning, but also some wisdom in its application. Otherwise used, streptomycin will almost assuredly meet with unwarranted criticism and reverses, if not condemnation.

Present knowledge indicates that streptomycin has certain toxic poten-

tialities, especially with prolonged treatment; that the *place* of streptomycin in tuberculosis is limited, that its *usefulness* in tuberculosis is limited, and that clinicians should limit its application to those types of tuberculosis for which it is found to be beneficial.

Despite the already demonstrated value of streptomycin in the treatment of certain types of tuberculosis, good sanatorium and hospital care or their equivalent, combined with modern if restrained application of pneumothorax, and the timely use of thoracic surgery, and adequate rehabilitation with competent medical guidance and supervision, are likely to remain the fundamental basis of the management and treatment of tuberculosis for some time to come.

Although one can readily agree with Hart that a substantial part of the bacterial front has been broken as a result of the recent remarkable achievements of chemotherapy of the infectious diseases, nevertheless, nothing resembling a decisive victory of man over microorganisms can be claimed until world control of tuberculosis is attained. This momentous task offers a challenge which will require all of the scientific and humanitarian ingenuity and acumen that man now has or is likely to soon possess.

ASSOCIATION NOTES

COIMBATORE BRANCH

President: Capt. T. K. Subramaniyan.
Vice-President: Dr. C. Nanjappa.
Secretary: Dr. C. V. Ramaraj.
Associate Secretary: Dr. S. Ganapathy.
Treasurer: Dr. T. V. Sivanandam.

A monthly meeting was held on 21-2-48 at Govt. Head Quarters Hospital, Coimbatore.

Capt. T. K. Subramaniyan presided. Dr. S. G. Rajarathnam was 'At Home' to the members.

Before the meeting commenced the following resolution was read and passed all standing for two minutes.

"This meeting of the Coimbatore District Medical Association places on record its deep sense of sorrow at the assassination of Mahatma Gandhi, the apostle of Truth and Non-Violence and the architect of India's freedom".

It was resolved to hold the annual meeting in the month of May 1948.

Considering the death in the supply of essential food articles due to import restriction, the following resolution was passed.

"This association fully appreciates and endorses the policy of the Govt. of India to restrict the import of non essential goods in order to conserve foreign currency and assures its support towards its end. However this association views with much concern that (the limited supplies of now available of) certain essential articles like Horlicks etc. are to be restricted further. Notwithstanding the above, the association unanimously resolves to request the Govt. to take early steps for instillation of necessary

machinery and manufacture of similar foods in India.

Then there was a clinical demonstration of interesting cases by Drs. C. V. Ramaraj, Capt. Ramasubramaniyan and P. K. Kalyanaraman followed by "a demonstration of an easy method", of blood urea estimation in general practice, by Capt. O. K. Sankaran, I.A.M.C. of the Military Hospital.

* * * * *

The monthly meeting of the Coimbatore District Medical Association was held on 20-3-48 at 6-30 P.M. at the association premises.

Capt. T. K. Subramaniyan presided and Dr. G. N. Rajagopalan was 'At Home' to the members.

After the reading of the report of the previous meeting and introduction of new members Dr. P. K. Kalyanaraman, M.B.B.S., Hony. Asst. Surgeon, Govt. Hd. Qrs. Hospital, Coimbatore delivered a lecture on 'Tropical Lueir Abscess'. During his lecture he said his findings were based on a study of his series of 38 cases and that the following points were not worthy in the aetiology of the disease (1) Absence of the tropical abscess in children below 12 years and rarity amongst women. (2) Increased incidence during the months from February to June and (3) the importance of taking routine X-rays in all undiagnosed prolonged fevers and looking for enlargement of the Lueir.

This was followed by a discussion.

TRICHINOPOLY BRANCH

President: Dr. T. N. Subramaniyan.
Vice-President: Dr. G. Joseph Gnanadickam.
Secretary: Dr. P. V. Sundaram.
Treasurer: Dr. C. R. Chary.

The 19th inaugural meeting of the above association was held at 6 p.m. on Saturday the 6th March 1948, in the Bishop Heber High School, West Boulevard Road, Trichy, when about 50 members were present.

Dr. (Miss) A. K. Verghese, Asst. Surgeon, Govt. Hd. Qrs. Hospital Trichinopoly, was at Home to the members.

Dr. U. Krishna Rao, the Mayor of Madras, and one of the Vice-Presidents of the I. M. A., inaugurated the year.

Dr. T. N. Subramanian, the president of the branch in his opening remarks welcoming Dr. Krishna Rao, and Dr. P. Kutumbiah, Principal Stanley Medical College, and lecturer of the evening, said that Dr. Krishna Rao was a tried worker in the cause of public work and had added glory to the profession by his being elected as the Mayor of the Madras Corporation, and hoped that this would be the first of many more honours to be achieved by him.

Dr. Krishna Rao in inaugurating the year said that in the free India of to-day which was taking its proper shape, medical men owed a duty to the country by combining themselves into one organisation and advice the government in the proper way of planning the health of the country. He instanced the power of the B. M. A., and said India also must have one powerful organisation in which all interests must be represented and that specialists associations must be limbs of the I.M.A. Referring to the current medical problems he said that admissions to medical colleges and the services must be purely on merit if the profession is to hold its reputation.

If absolutely necessary, about 30% of seats might be reserved for communal representation for sometime to come. A certain % of seats should be allotted to children of Medical men to perpetuate the medical tradition and not to waste the investments made by them. To solve the problem of accommodation in colleges, he would suggest the double shift system which would save the government enormous money. He would also suggest drastic changes in the curriculum and eliminate unnecessary subjects.

Referring to Ayurveda and other indigenous systems of medicines, he said he held strong views for which he was misunderstood. He said that any system of medicine that could be scientifically tested could be synthesised into one, but the present method of imparting a little knowledge of everything and producing ill-equipped doctors was a danger to the country and was neither patriotism or nationalism. He would also suggest giving a large number of young men a short course of about a year, in tackling emergencies such as treating minor accidents and minor ailments, and these men would give lot of service and save human suffering in the country. He concluded by thanking the members for giving him the opportunity to meet them all.

Dr. P. Kutumbiah then delivered a very instructive lecture on "Diagnosis and treatment of heart diseases in private practice" and this was followed by an useful discussion.

Dr. P. A. S. Raghavan proposed a vote of thanks to Drs. Krishna Rao, P. Kutumbiah and A. K. Verghese and the authorities of the Bishop Heber High School.

March 1948]

Dr. VENKAPPA FUND—APPEAL FOR CONTRIBUTIONS

We, the undersigned signatories, feel it our duty and consider it a great privilege to sponsor an appeal to commemorate the valuable services rendered by Dr. D.V. Venkappa, one of the oldest members of the medical profession in Madras.

For nearly four decades he has done yeomen service to the medical profession not only in our Province, but throughout India. Dr. Venkappa's services on behalf of the Licentiate Medical Practitioners and his great work for the All-India Medical Licentiates Association are well-known. His indefatigable efforts to get the grievances of this class of medical practitioners redressed, to raise their status and improve their standard of teaching, and his work as Provincial Secretary of this Association, need no emphasis. He has been Editor of the Indian Medical Journal for over 4 years and has contributed considerably to improve the tone and get-up of the Journal. He was a Member of the Madras Medical Council for over 7 years, was an active member and office-bearer of the Indian Medical Association, was President of the South India Branch for an interim period, as well as Vice-President of the Madras branch and member of the Provincial Council. He has worked unceasingly for the amalgamation of the two medical associations in our country.

Dr. Venkappa is now past 65: but in spite of age and declining health he is still actively working on behalf of the profession. We therefore feel it our duty to honour one whose career has been marked by great sacrifices for the profession and who has taken keen interest in all movements for the improvement of the medical profession which he loved so well. We feel it our duty to honour such a colleague of ours and show our appreciation of his services by the presentation to him of a suitable purse.

With this object we have formed ourselves into a Committee and are issuing this appeal both to medical men and to such others of our countrymen who know him, and request them to contribute liberally to the purse we propose to present him in the near future.

We request that all contributions may be sent to Dr. U. Krishna Rau, Worshipful Mayor of Madras who has kindly consented to act as Convenor of this Committee.

Madras, 10th March 1948.

1. Dr. T.S. Tirumurti, President, South India Provincial Branch of I. M. A.

2. Dr. K.C. Nambiar, President, Madras Branch of I. M. A.

3. Dr. S. Thambayya, Ex-President, Madras Branch of I. M. A.

4. Dr. P.B. Anangarachari, President, Madras Branch of Indian Medical Licentiates' Association.

5. Dr. C. Nathamuni Naidu, Finance Secretary, All-India Medical Licentiates' Association.

6. Dr. K. Rama Rao, Secretary, I. M. A. & All-India Licentiates' Association.

7. Dr. K.L. Narayana Rao, Secretary, I. M. A., Madras Branch.

8. Dr. R. Sankaran, Member, Provincial Council, I. M. A.

9. Sri T. A. Ramaswami Reddy, B. A. B. L. Advocate, Madras.

10. Sri G. Narasinga Rao.

11. Dr. U. Krishna Rao, Mayor of Madras & Vice-President, I. M. A.

"REFUGEE DOCTORS RELIEF FUND"

The response to the appeal for relief to the Refugee Doctors though fairly satisfactory is not quite up to the expectation. It is proposed to close the fund by the end of April. Doctors who have not yet contributed to the above fund are requested to contribute immediately.

Contributions from the following doctors are acknowledged herewith.

Ramnad Dist.		
Dr. M. N. Ranjit Singh	Karaikudi	Rs. 5
South Arcot.		
Dr. G. Satagopan	Nellikuppam	" 50
Dr. S. Sankararaman	Cuddalore	" 15
Dr. C. S. S. Sarma	"	" 10
Dr. D. S. Krishnamurthy	"	" 10
Dr. M. P. Vaidyanathan	"	" 10
Dr. S. Navamaniraj	Tiruvannainallur	" 10
Dr. G. Anawararajulu Naidu	Chidambaram	" 10
Dr. M. K. Swaminathan	Nellikuppam	" 10
Dr. N. K. Rajagopalachari	Manjakuppam	" 10
Dr. T. D. Naidu	Sankarapuram	" 5
Dr. T. Joga Rao	Cuddalore	" 5
Tanjore District		
Dr. N. Ramanathan	Tanjore	" 50
Dr. E. K. Menon	"	" 25
Dr. Esmail Sahib Bahadur	"	" 10
Dr. S. Krishnamurthy	"	" 10
Dr. M. K. Thiyagarajan	"	" 10
Dr. N. R. Subramanyam	"	" 10
Dr. P. Appukuttan Nair	"	" 10
Dr. P. Narayana Rao	"	" 10
Dr. S. Sivarajan	"	" 10
Dr. K. Rama Rao	"	" 10
Dr. V. S. Srinivasan	"	" 10
Dr. Mrs. Mary Mathews	"	" 10
Dr. V. Narayanaswamy Pillai	"	" 10
Dr. P. V. Kalyanasundaram	"	" 10
Dr. T. B. Shankar Rao	"	" 10
Dr. V. P. V. Naidu	"	" 10
Dr. T. M. Pillai	Trivadi	" 10
Dr. R. Krishnaswamy	"	" 10
Dr. V. S. Nedungadi	Aduthurai	" 10
Negapatam Branch		
Dr. N. R. Thangavelu	Nagore	" 10
Nilgiris District		
Dr. W. Sundaraj	Ootacamund	" 10
Dr. L. W. Pereira	Kotagiri	" 10
Tinnevely District		
Capt. T. V. K. Iyengar	Alwartirunagari	" 6

SALES TAX

GOVERNMENT OF MADRAS

ORDER

The Government have examined the representations made by the Madura Medical Association, Madura and the Indian Medical Association, Madras in regard to the assessment of private medical practitioners to Sales Tax. There are three categories of medical practitioners namely:—

- (i) those having consulting rooms only;
- (ii) those owning dispensaries and dispensing medicines only to their patients; and
- (iii) those having large dispensaries and dispensing medicines not only to their patients but also to the patients of other practitioners and also sell patent medicines to the public.

The Government pass the following order in respect of each of the categories mentioned above:—

Category (i):—These are not liable to Sales Tax as they give prescriptions only and do not dispense medicines.

Category (ii):—Though these practitioners are legally liable to Sales Tax, the Government direct that they may be exempted from the payment of the tax.

Category (iii):—These should be treated as any other Chemists and Druggists and should be assessed to Sales Tax.

2. The Board is requested to issue necessary instructions in the matter to the Commercial Tax Officers.

(By order of His Excellency the Governor)

V. K. RAO,

Deputy Secretary to Government.

To

THE BOARD OF REVENUE,

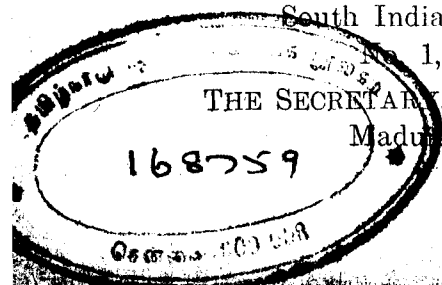
THE SURGEON-GENERAL, MADRAS.

THE PRESIDENT,

South Indian Provincial Branch of the Indian Medical Association,
1, Krishnamachary Road, Nungambakkam, Madras.

THE SECRETARY,

Madura Medical Association, Madura.



FOR SALE

One Trial Case for sight test in polished wood . Rs.
body with lock and key. ... 190/-

One Marple-Morton Electric Ophthalmoscope in
velvet lined leatherette case. ... 165/-

One Davidson's Improved complete sight test
chart. ... 17/-

One Lens Measure; and one Orthop's Rule. 28/-

ALL BRAND NEW

For particulars apply to:—

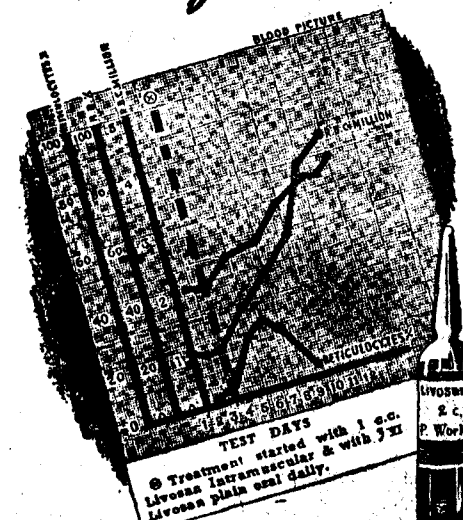
V. c/o MANAGING EDITOR

A LIVER EXTRACT of Exceptional Potency

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A total extract of liver to a highly concentrated and purified state, conserving all the active constituents of liver including vitamin B. Patronized for its exceptional potency by many Govt., Civil, Military and Mission Hospitals and thousands of doctors. 2 cc of Livosan is equivalent to 1000 grams of fresh liver taken orally and absorbed.

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"FORTE" (INJECTIBLE).

Anti-anæmic principle isolated in pure state by methods of Dakin and West; issued in 2 cc ampoules; three times stronger than ordinary Livosan injectible, but made absolutely painless by a special process. 1 to 2 injections sufficient to restore the blood picture in very severe cases of Anæmia. Safe, convenient and economical both for the doctor and the patient.

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(pure d-glucose powder)

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INTRODUCING AN ADVANCE IN CALCIUM THERAPY

Calevin, prepared from chemically pure Calcium Levulinate, is manufactured by a special process developed in our laboratories.

Calcium Levulinate contains 50 per cent more calcium than Calcium Gluconate. It is less irritant than other calcium salts and much safer to administer.

Being more soluble than Calcium Gluconate, there is no necessity to adopt any special precautions to keep the salt from crystallising in ampoules as with solutions of gluconate which are always supersaturated.

Calevin is recommended in all cases in which Calcium by injection is indicated. Calevin is available to Physicians in two strengths,

1. 10 per cent solution for intravenous use &
2. 15 per cent solution for intramuscular use.

CONTRA INDICATION: Injections of 'Calevin' should not be given during the course of treatment with the digitalis group.

PACKINGS:

(For intravenous use) Boxes of 5, 25, and 100 ampoules of 5 cc. of 10% solution. Boxes of 5, 25, and 100 ampoules of 10 cc. of 10% solution. (For intramuscular use) Boxes of 5, 25, and 100 ampoules of 2cc. of 15% solution.

Detailed Literature on Request.

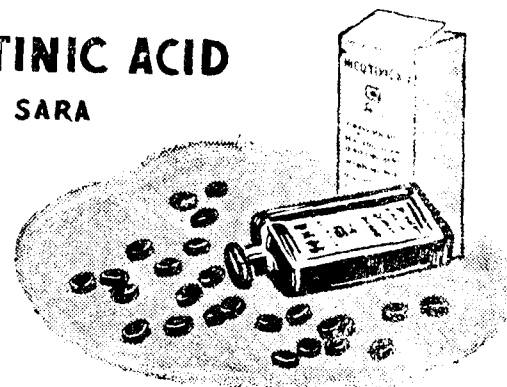
SARABHAI CHEMICALS

Baroda Ahmedabad.
(Pharmaceuticals) Division

SC. (14-48)

NICOTINIC ACID

SARA



Nicotinic Acid Sara is a white odourless crystalline powder, melting between 234°—237°C. It is non-hygroscopic and one gram dissolves in 60cc. of water at ordinary temperatures. It is stable in the dry state.

INDICATIONS: Nicotinic Acid is a specific in the treatment of pellagra and its administration in clinical doses produces striking results in clearing up the glossitis, stomatitis, gingivitis, pharyngitis, dermal lesions and mental stupor and depression of this deficiency disease.

Pellagra, indigestion, forgetfulness and insomnia respond to Nicotinic Acid Sara. Porphyrinuria, whether due to Pellagra or to the toxic effects of the Sulphonamide drugs is counteracted by Nicotinic Acid Sara. In association with liver extract, it gives good results in sprue and pernicious anaemia. It is also useful in the treatment of delirium tremens.

DOSAGE: Although optimal dosage varies according to the deficiency of the vitamin, oral administration of 500 mgms., in 10 doses of 50 mgms. each is safe and effective for the average patient with pellagra. Administration of 50 mgms., at one-hour intervals ten times a day is more effective than a single large dose.

In grown up children, the dosage varies from 50 to 300 mgms., and for children from 2 to 6 years, 25 mgms. are sufficient. Nicotinic Acid Sara is available as tablets containing 50 mgms., each packed in bottles of 25, 100 and 500 tablets.

REACTION: The absorption of this vitamin is followed by flushing, burning and itching. But these are harmless and disappear within a short time.

Note: This Vitamin—an important member of the Vitamin B Complex—is now prepared in India synthetically by Sarabhai Chemicals (Fine Chemicals Division).



SARABHAI CHEMICALS

(Pharmaceutical Division)

Baroda • B • S • Ahmedabad

SHILPI

SC (Med) 4

ODDS & ENDS

Silver Nitrate Solution should be freshly prepared at least once a fortnight.

To be differentiated from Syphilis and other genito infectious diseases is the triple symptom complex which has come to be known as "Behcet's Syndrome". This condition named after the Turkish Dermatologist, who in 1937 first integrated its several manifestations, is characterised by aphthous like ulcerations of the oral and genital mucous membrane and a variety of ocular disturbances, the most characteristic of which is uveitis with hypopyon.

The men of science learn to believe not by faith but by verification.

A children's doctor and a Veterinary Surgeon have bonds of relationship not recognised by the General Medical Council.

The disgruntled man was complaining that he had been a patient in every one of the hospitals in the town and not one was good. "You couldn't have been at least in one" said a friend.

"What is that?"

"The Women's hospital".

"My dear man, I was born there"!

"Your husband must not have strong coffee. He will get too excited" advised the physician.

"But, doctor, you must see how excited he gets when I give him weak coffee" moaned the wife.

Father:—I see your progress card from school is bad. I must punish you.

Boy:—(Who has been to the dentist recently). "Oh, father can't you give me gas"?

RESO-LIVER

(A proteolysed Liver Tonic with
Vit. B. complex)

After extensive clinical trials we are introducing to the Medical Profession RESO-LIVER, a *Proteolysed Liver-Stomach- Yeast Tonic with Iron, Glycerophosphates, and Vitamin B Complex*. Even in cases where the causative factors of the Anaemia could not be correctly diagnosed RESO-LIVER has given excellent results and the Reticulocyte response has been rapid.

RESO-LIVER is indicated in all types of Anaemias including Tropical, Pernicious, Macrocytic, Hyperchromic and Pregnancy Anaemias. In all conditions of Malnutrition, Worm Infections, Metallic Poisoning, Sprue, Anaemias associated with Beriberi, Pellagra etc. and Convalescence after acute illness, RESO-LIVER gives the desired effect within a week after its use.

One of the several Doctors regularly prescribing RESO-LIVER to his patients says:

"I am very glad to let you know the result of your product the RESO-LIVER which I have tried on one male aged about 37. His blood was examined before giving your product. After giving one Bottle of RESO-LIVER, his blood was examined again. I am glad to let you know that the result was wonderful. There is an improvement of 25%...The Patient was not under any other medical or injection treatment during or before the treatment. I am glad to let you know that the product "RESO-LIVER" is as good as any other foreign preparations.

Yours Sincerely,

(Sd.).....

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