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सर्वजनाः सुखिनो भवन्तु

THE MISCELLANY

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

MONTHLY JOURNAL OF THE SOUTH INDIAN BRANCH
OF INDIAN MEDICAL ASSOCIATION

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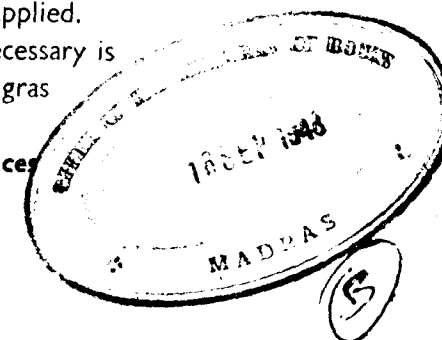
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Announcement

INDIAN MEDICAL ASSOCIATION SOUTH INDIAN PROVINCIAL BRANCH

THIRD SOUTH INDIAN PROVINCIAL MEDICAL CONFERENCE, MADRAS

The Third South Indian Provincial Medical Conference of the Indian Medical Association will be held during the 22nd, 23rd and 24th October 1948 in the premises of the Madras Medical College.

There will be a Medical Exhibition during the Conference. Manufacturing firms and local agents can obtain further details from Dr. R. Sankaran, 6 Rajabadar Mudaliar Road, T. Nagar, Madras, the member in-charge of Exhibition.

Dr. K. L. Narayana Rao,
Hon. Secretary,
3rd South Indian Provincial Medical Conference
Indian Medical Association.

Dr. O. R. BALU

We record with deep regret the passing away of Dr. O. R. Balu of Trichinopoly on 10-8-48. He was one of the most popular practitioners of Trichinopoly for the past 15 years.

He took a keen interest in the activities of the I. M. A. and was the Hon. Secretary of the Trichinopoly branch for a couple of years. During his regime he organised benefit performances for raising money for the Building Fund of the association and enriched the association by about Rs. 5000/-.

He had a good practice and was running his own private hospital with over 30 beds.

We offer our condolences to his aged father, wife, children and other relations.

The MISCELLANY—July, 1948

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THE MISCELLANY

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[No. 1

ENIGMATIC TALES TOLD WITH CLUES

BY

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District Medical Officer, Bellary.

What is the etiology of nephritis (Bright's Disease), what are the clearly distinguishable types, what is the relationship of nephritis with hypertension, what are the easily available tests of renal function within the range of a general practitioner and what is the rationale of therapy? On etiology depends every thing else. This etiology has been an enigma so far. Workers from time to time have put forth various theories following various tracks which have not led to fruitful consummation. Some recent clues have come to hand at last. It is probable that these clues may provide a final answer. I intend discussing these clues and other connected problems in this article.

Etiology:

Whilst I was Medical Specialist, Jubbelpore area in 1945 I was called for consultation in the British Military Hospital, Jubbelpore. The patient was an English child 4 years old suffering from anasarca, hyperpiesia, albuminuria, cylindruria. History showed that he had had an attack of streptococcal infection (tonsillitis) some time back from which he had recovered. After this, acute nephritis developed. This set me thinking hard. Then I remembered to have seen cases of acute

nephritis in England, following in the wake of scarlet fever. A question at once shot within me. If acute nephritis had been the result of direct invasion by the streptococcus or its toxins, why had it not developed at the height of infection? This was clue number one.

Soon after I was posted as District Medical Officer, Trichinopoly, where a big maternity section was attached to the Government Head-quarters Hospital in the same compound and I saw cases of acute nephritis in pregnant women which presented following features:—

- i. development of disease during later months of pregnancy
- ii. cure on emptying the uterus
- iii. history of a similar occurrence during previous pregnancy. I queried myself what was the cause of this pregnancy kidney, a condition which resembled acute nephritis, yet was directly related to pregnancy? This was clue number two.

Then we had a visit by Dr. C. S. Ramachandar Rao who gave us a profitable demonstration in blood groups. I had private discussions with him. It dawned on me whether same

antigenic incompatibility existed between the mother and the child in Bright's disease in pregnant women, just as it had existed with the Rh groups, the foetus producing an antibody to its mother's kidney, which the mother absorbs via the placental route. This was clue number three.

Soon after I happened to read Penrose (1946) and Kalmus (1946) and Platt (1947) and the picture cleared up from the haze just as spot light puts into relief the panorama of a fading vision. This is what the picture was and it fitted so well in the frame of my conception that I quote the above authors verbatim. "These peculiarities might be explained if nephritis were the result of an abnormality connected with the development of immunity—some process analogous to allergy or to anaphylaxis . . . in human disease the streptococcal infection in some way causes the renal tissue to become antigenic and when immunity develops, an acute antigen—antibody reaction occurs in kidney." A question may arise, why should there be localization of disease in kidney and not elsewhere? The answer is offered by the above authors in the following terms "because kidneys contain the most vulnerable part of the vascular system viz., the glomerular capillaries."

How beautiful the picture—too beautiful for words! whether this picture is a reality or a hypothesis will be proved by time. About 80% of this type recover completely, few die in the acute stage or within few months and the rest called chronic nephritis type I, run a latent course of several years duration, remaining apparently well enough, although revealing hyperpiesia, albuminuria, and slight renal dysfunction. Ultimately either the tubes burst (vascular crisis—cerebral haemorrhage) or filter chokes (kidneys fail—uraemia).

By whereas this is the picture in acute nephritis what is the picture in

chronic nephritis? The latter disease is so indelibly marked on my memory because it occurred in a very near and dear relation of mine, on whom I waited day and night in suppliant attendance, that my minute observation can be relied upon to substantiate what I am going to say hereafter. In this very near and dear relation of mine started the disease insidiously at the age of 42 years. I was the first to discover commencing oedema over his face which even he had not noticed. Urine showed heavy albuminurea and hyperpiesia. There had been no infective illness of any sort. In spite of treatment which varied from one system of medicine to another, he ran a rapidly downhill course and expired exactly two years later. I was mortified. Question after question shot within me. What was the etiology? The answer came again and again, the patient had had hyperpiesis at the very start and that he was dead within two years. I observed several cases later on and they proved true to the type i.e., those with hypertension at the start, ran a rapidly downhill course and were dead within two years. This was clue number one.

In 1939 Wilson in experiments on rats produced hypertension of a malignant type by constricting the renal artery on one side. The opposite kidney as a result of high blood pressure showed secondary changes viz., necrosis of arterioles which in long standing hypertension was almost a perfect reproduction of certain forms of chronic Bright's disease in man. This was clue number two.

In 1942 Ellis in his Croonian lecture clarified the picture and I would like to quote him verbatim. He says "The demonstration by Wilson and Byron that hypertension can produce in the kidney progressive histological changes formerly termed chronic interstitial nephritis . . . the production of designed experiments of such renal lesions as

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I think, definitely established their hypertensive origin and this is crucial to an understanding of chronic Brights' disease. I suggest that chronic interstitial nephritis as we have known it in the past, is merely the result of hypertension." The ultimate cause of Brights' disease may still be obscure but the fact that hypertension can produce renal changes found in chronic Brights disease now stands undisputed.

Naturally the question now arises is whether there are three stages of nephritis which text books call acute, subacute (with oedema) and chronic? My answer is definitely no, and the sooner we discard this wrong conception the better it is, as it reveals an ignorance of onset, course and prognosis. These cases of chronic Brights' disease (with gross persistent oedema) are different from the acute Brights' disease - at the very start, as they occur at any age, are not ushered in by any illness, creep in insiduously and usually the patient discovers oedema of the ankles or face while the doctor discovers heavy albuminuria. Those with hyperpiesis at the start run a rapidly down-hill course and die within two years. Others however who run a more favourable course with varying degrees of albuminuria and oedema for many years, have a normal blood pressure and are called Nephrosis. But the latter is not a separate disease, for, these ultimately develop hyperpiesia, then renal failure and die.

Thus then we have two main types of nephritis which Ellis (1942) has called type I and type II.

Type I has abrupt onset with headache, vomiting, haematuria, transient oedema, is related to infection usually following a streptococcal one, occurs in young people with 80% complete and permanent recovery rate—the remaining run a latent course often lasting many years and remain apparently well but terminate ultimate-

ly in hypertension and uraemia. A few (5%) die within a few months of onset.

Type II commences insidiously, is unrelated to infection, occurs at any age and is marked clinically by a prolonged stage of hypertension and persistent oedema. How simple and clear! Well this is the picture which the general practitioner may profitably bear in mind. There are a few exceptions to the above e.g., acute focal nephritis where haematuria occurs at the height of infective illness etc., but the whole object of this article is not to write a text book but to focus thought on the subject of renal disease, to simplify diagnosis, clarify prognosis and emphasise treatment.

Tests of renal efficiency.

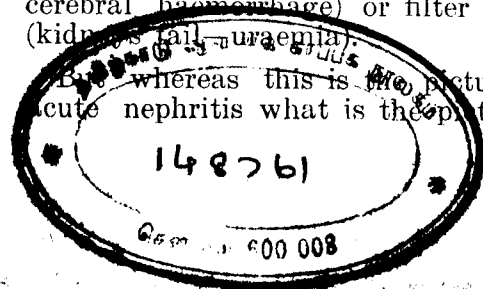
Although to-day we have reached stages where we can test separately the functions of the glomeruli and the tubules of kidney, yet I propose describing tests of practical value to a general practitioner for whom this article is primarily written.

1. Dilution and concentration tests.

First day (dilution test). After passing urine, patient drinks two and half pints of water within half an hour. He is then made to pass urine at half hourly intervals for next 4 hours. Each specimen is separately examined for (a) volume (b) Sq. gravity. Normally the volume should be $2\frac{1}{2}$ pints and Specific gravity minimum of 1002 or less.

Second day (concentration test). He takes only 16 ounces of fluid in 24 hours, four ounces six hourly. Fruit is not given and patient takes his ordinary food.

Urine is passed as and when he likes. Each specimen is kept separately and examined for (a) volume (b) specific gravity. Normally the volume should not exceed 25 ounces and specific gravity maximum of 1027 or more.



diet. This may be true. With that object in view urea which is a strong diuretic, gms. 15 in oz. ii of water B.D. for 7-10 days, then stopped and continued off and on for one year is recommended. Its failure augers ill for the patient.

Whatever be the mechanism, so long the end is achieved, means do not matter, provided these be judicious and controlled.

As for the recent high fluid (7 pints per day) and low salt diet therapy. I should say that this rigime in cases with cardiac and renal oedema, helps excretion of sodium and consequently of water. There is initial gain in weight during the first few days followed by intense diuresis and weight reduction

with complete disappearance of the oedema. A word of warning is necessary here. This method should not be tried in cases of extreme oedema because initial retention of fluid might carry away the patient with laryngeal and pulmonary oedema.

Finally in terminal renal failure—so called chronic nephritis and uraemia—even the most recent peritoneal dialysis is a palliative measure. We have to admit defeat. We have no remedy except the palliative and the psychological.

References:

- Ellies A (1942) *Lancet* I, 34, 72
 Kalmus H (1945) *Ann Eugen* 13, 146
 Penrose 4S (1946) *Ann Eugen* 13, 141
 Platt R (1947) *Quart J. Med.*, 16, 111
 Wilson & Byron F.B. (1939) *Lancet* I, 136

Q. What are the results with penicillin in the treatment of sinusitis?
 —E.E.N.T. Apr. 48.

A. There have been a number of articles published on this subject. Likewise there have been differences of opinion as to results because in many instances the studies were not controlled. One of the articles which has dealt pointedly with the problem is by Scott—Moncrieff (*Canad. M.A.J.* 56: 296 (March 1947)). He brings out the fact that in addition to the basic rules for Penicillin therapy (organisms must be sensitive and the drug be in contact with the organism in sufficient concentration for a sufficiently long period), there must be adequate drainage or "ventilation." Parental administration of penicillin has given better results in acute sinusitis than in chronic. This method of treatment has given good and constant results in cases with extension of infection beyond the sinuses such as fractures into the sinuses and orbital cellulitis. Necessary operative procedure which insure adequate drainage improve the prognosis. The author describes the technic of topical treatment of the sinuses with penicillin, but quotes the abatement of favourable results by others rather than by himself.

RECENT ADVANCES IN THE TREATMENT OF SENILE ENLARGEMENT OF PROSTATE

BY

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

When operation was indicated the treatment consisted of:

(1) Suprapubic one stage prostatectomy either Freyer's type or Harris' type.

(2) Suprapubic two stage prostatectomy, the interval between the two operations may be as short as two or three weeks or as long as six months, depending on the improvement of the kidney function: the second stage operation was preceded by vasectomy.

(3) Perineal prostatectomy which though technically an easy operation did not become popular in Madras.

(4) Trans-urethral resection of prostate which is very popular in U.S.A. and with some surgeons in England did not become popular in Madras.

No. 1 and 2 procedures are the usual procedures here, majority of the operations being of No. 2 type.

The usual trouble which drove the patient to the hospital was acute retention supervening on chronic retention of urine often with high blood urea, depressed urinary function and sometimes with Vesical calculus. The management of the chronic retention of urine was the first problem and most surgeons preferred a suprapubic insertion of a self-retaining De Pezzer catheter by the open method as opposed to the blind insertion through a Kidd's trocar and cannula and slow decompression of the bladder.

The gradual decompression of the bladder became an important principle since 1927.

Surgeons who deal with a large number of hospital class of cases of retention of urine will be familiar on the sudden death of cases after mere catheterisation, after suprapubic drain-

age by self-retaining catheters. There is always an element of sepsis with in-dwelling catheters with associated morbidity.

Terrence Milne in 1946 published a new approach to the removal of prostate by suprapubic pre-vesical route without opening the bladder. In this procedure there was no selection of cases, the cases that came with retention of urine are not catheterised but tidied over with enemata, hot sitz baths and if necessary a single suprapubic aspiration with a small sized trocar and cannula.

Milne uses special retractors, diathermy cautery to stop bleeding. In my experience these are not essential. I have done 8 cases by this method. One case presented the complication of a fistula of four months. This was a diabetic. Patients get out of bed in 3 days and the convalescence is extremely smooth and uneventful. The total stay in the hospital being a fortnight. There is no mortality in this short series.

I regard this method as a great advance in the treatment of senile enlargement of prostate.

This naturally raises the question of the management of acute retention of urine in the elderly men due to enlargement of prostate. If the acute retention is relieved by catheterisation and no surgical advice is sought until further retention developed renal damage occurs. If acute retention occurs in an enlarged prostate case, a dose of morphia may be given and the patient placed in the hands of the surgeon. Infection carried in by the catheter places the patient in a less favourable condition for operative treatment.

MEDICAL JOURNALISM

A PROSPECT AND A RETROSPECT

There was a time when the medical journals in the whole of India and especially in the South, could be counted on the fingers but now there are many. They are, of course, of varying depth and range, and serve distinct and different purposes, clients and categories. Their general level is not much above the average, while some of them are mediocre and deplorably mere patchwork.

Some are frankly advertiser's enterprises, some semi-scientific with a popular urge and appeal, some mostly catering to the students' needs and activities in the various teaching centres, with a preponderating examiner-examinee bias, while the others are official "service" journals. There are journals that incorporate a great amount of laboratory data and ostensibly connected with research foundations and research centres, where and when they exist in a live measure.

These journals served and are even now serving, many a useful purpose and it is not the purpose of criticism to belittle their function in the evolution of scientific medicine in this country and its milestones of progress. Abundant administrative achievements, triumphant researches and discoveries and the ever widening circles of professional contacts, mark the pages of the past medical journalism. But a close and conscientious study of these endeavours of the past, brings out a definite want that the journalistic leadership, has either failed or not amply succeeded in interpreting the Indian scene of the sick and suffering, either satisfactorily to *itself* or to its accredited *guardians and rulers* of its destiny, to an extent, that length of years and gravity and importance of the cause, did indeed challenge attention on the part of *every one* concerned, viz. the people, the doctor and the State! It is now be-

coming very easy and exact, to think in terms of preventive medicine, the rural bias, social medicine, the hospital-gone home, the specialist driven countryward and the costliest treatment and scientific care for the commoner by a State medical service which, if only organised, appears to be the cheapest in the long run. The focussing and moulding of medical public opinion, *has just begun* with the birth and full maturity of the Independent Medical profession in now almost every Province of India, and this on a scale *not* envisaged before. It required, perhaps, two wars and a world-shake up for the medical world to take stock of its past and future and adjust for the present.

Sterile policies had been given up. Shibboleths of the services have been largely shed as anachronisms. Anti-Indian Medical Service, Anti-indigenous systems and Anti-systems of an eclectic nature; the pro-underdog and labour-union-type of slogans can no longer enthuse, but will definitely hinder all progress to come and will discount even the slender achievements of the immediate past. It is also too late to divide the leadership in Medical Politics into a Northern and Southern Command. A new and intensive adaptation to the medical horizon is needed. It has to reflect the Indian scene, in matters medical, in town and country. It has to give, the inside picture and pick out the blemishes and conserve the appeal of the whole as against the brilliance of the parts. It has to see the wood in preference to the trees.

Bhore Committee recommendations apart, there is a great heart and head ache about the Indian Scene in the medical relief, that demand attention. Money cannot remedy every or all defects, but the right feeling and right action, often at no greater exertion, than *willingness to feel and do and*

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MEDICAL JOURNALISM

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put oneself in other's position will achieve wonders. It is the function of propaganda and of, medical press in particular to see this is done well and truly. Not scare journalism, flaunting to root out corruption and inefficiency, not the belabouring of those nameless and unremembered beings of either sex, who are more sinned against than sinning in all manner of service, private, public, quasi-public, but constructive, well informed and co-operative, missionary efforts will be the programme of the Medical Politician and Publicist to come.

Now for a few examples:—

Allopathy is not advertised. It is not even ethically advertised! It is advertised and interpreted wrongly. It is called foreign, costly, clique-ridden, commercialised and what not! Cheapness in remedies and a low paid, emergency medical scout-helper or technician type—of service or services are held out as solutions for a global medical relief organisation to this famine ridden, unpeaceful, ignorant

and epidemic-torn country. No group practices, no voluntary Hospitals on any large scale, not many or sufficient indigenous missions of a medical nature, exist. No social insurance, no vigorous championing of the victims of workman disability or malpractices, no adequate interpretation of the medico-legal questions with intelligent protection of the client's interests from the medical jurists' angle exist now,—all these are avenues for medical journalism to explore and adventure and enlist the support of the ever increasing number of the rank and file in the profession.

In conclusion, the scope is as wide and unlimited, as the pioneers are few and far between. The pen can now be dipped not into the vitriol of controversy, of salaries and stipends, of perquisites and preferments, into racialism and racketeering, but to write the saga of Independence; independence to "fashion as we feel and to labour as we know."

—A correspondent.

CHANGE OF ADDRESS

- DR. T. DEENADAYALU NAIDU from Sankarapuram to Kattumannarkoil.
- DR. K. SRINIVASAN from Yercaud to Mohanur.
- DR. S. E. PARAMANANDAM from Kolar to Bangalore.
- DR. MISS A. K. VERGHESE from Trichinopoly to Coimbatore.
- DR. J. K. TIRUNAVAKARASU from Kilakarai to Rajasingaramkulam.
- DR. P. S. SOMASUNDARAM from Rajasingaramkulam to Kilakarai.
- DR. MRS. CHELLAPPA from Poolankurichi to Mana Madura.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

Simplified Method for Calculating Diabetic Diets—E. K. Cuso & F. J. Stare, J.A.M.A.—Jan. 18, 47—Numerous methods have been evolved for the calculation of diets to be used by patients with diabetes mellitus and for the simplified instruction of patients in the use of such diets. Some of these methods involve calculations which are unnecessarily accurate in view of the variable composition of foods, as affected by such factors as the variety of seed, the soil, climatic conditions and

Table 1.—Food Equivalents

LIST 1.—Protein Equivalents—Negligible Carbohydrate, 7 Gm. Protein 5 Gm. Fat.

Meat, fish poultry—1 Oz. (28 Gm.)	Sardines—3 medium
Egg—1	Salmon, tuna, crabmeat—1/4 cup
Cheese, American—1 Oz. (28 Gm.)	Peanut butter—1. 1/2 lbs.
Cheese, cottage—2 lbs.	"Cold meat"—3 thin slices
Oysters, clams, shrimp—5	Frankfurt—1 average size

LIST 2.—Vegetables—Negligible Carbohydrate, Protein and Fat.

Celery	Cucumber	Lettuce	Radishes
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LIST 3.—Vegetables—7 Gm. Carbohydrate, 2 Gm. Protein, Negligible Fat (1 Serving—1/2 cup)

Asparagus	"Greens": beet,	Turnip
Beans, string	Chard, dandelion,	Onions
Beets	Mustard, kale,	Squash
Broccoli	Spinach	Tomato
Cabbage	Turnip	
Carrots		

LIST 4.—Fruits—10 Gm. Carbohydrate, Negligible Protein and Negligible Fat.

Apple—1/2 medium	Orange—1 medium or 1/2 cup juice
Applesauce, unsweetened—1/2 cup	Peach—1 medium
Banana—1/2 small	Pineapple, fresh, diced—1/2 cup
Scant	Pear—1/2 large
Berries: raspberries, blueberries or	Pineapple juice, unsweetened 1/3 cup
blackberries—1/2 cup	Plums—2 medium
Cantaloupe—1/3 medium	Prunes—2 medium
Cherries—12 small	Strawberries—12 large
Dates—2 small	Tangerine—1 large
Grapefruit—1/2 medium	Watermelon—1 small slice with rind
Grapefruit juice, unsweetened 1/2 cup	1/3 lb. (151 Gm.)
Grapes—15 medium	

LIST 5.—Carbohydrate Equivalents—16 Gm. Carbohydrate, 3 Gm. Protein Negligible Fat.

Beans, backed and lima—1/4 cup	Peas—1/2 cup, scant.
Bread, baker's—1 slice	Potato, white—1 small
Corn—1/4 cup (1 small ear)	(size, 5 to 1 lb., 454 Gm.)
Rice, macaroni, noddles—1/2 cup	Cereals, cooked—1/2 cup
Graham crackers—2	Cereals, dry, flakes—1 cup
Soda crackers—5	

LIST 6.—Fat, Equivalents—Negligible Carbohydrate, Negligible Protein, 4 Gm. Fat.

Butter or fortified oleomargarine—1 tsp.
Cream, light—2 tsp.
Mayonnaise—1 tsp.
Oil—1 tsp.
Bacon—1 slice, long, crisp.
Milk—(1 cup, 8 Oz.) 12 Gm. carbohydrate, 8 Gm. protein, 10 Gm. fat.

harvesting, storage and cooking methods. The fairly common practice of instructing patients to weigh diets can be criticized for the same reason plus the fact that a patient who is "tied to a pair of scales" has much less chance of living a normal life, which is so important from a psychologic point of view. The subject of the percentage of carbohydrate in foods, particularly vegetables, has also been confusing to the patient. In general, we have found that many patients disregarded it and ate whatever vegetable was prepared for them at home, irrespective of its carbohydrate content. This practice seldom accounts for more than a 5 to 10 per cent variation in the total carbohydrate intake for the day. Certainly most diabetic patients can tolerate that much variation in their carbohydrate intake.

Many methods of dietary instruction are impractical and unrealistic because they do not take into consideration the patient's food habits. Race, religion and economic

Table 2.—Summary of Composition of Food Equivalent Groups

Foods and Equivalents	Carbohydrate	Protein	Fat
Milk—1 cup	12	8	10
Protein equivalents—list 1	0	7	5
Vegetables—list 2	0	0	0
Vegetables—list 3	7	2	0
Fruits—list 4	10	0	0
Carbohydrate equivalent—list 5	16	3	0
Fat equivalent—list 6	0	0	4

status, together with other social and psychologic factors, fundamentally affect the daily selection of food. A labourer who takes his lunch from home presents one problem. His noon meal must be planned around the nonperishable, easily packaged foods. A person with a limited income may not be able to afford more than one

Table 3.—Composition of a Diabetic Diet

Carbohydrate 170 Gm. protein 80 Gm. fat 70 Gm. calories 1,600

Food	Amount	Protein Gm.	Calcium Gm.	Iron Mg.	Vit. A Int. U.	Thiamine Mg.	Riboflavin Mg.	Niacin Mg.	Ascorbic Acid Mg.
Milk	1 Pt. (473cc)	16	0.60	0.4	800	0.20	0.84	0.5	...
Egg	1	7	0.03	1.3	500	0.07	0.18	0.6	...
Meat, fish, poultry	5 Oz. (141 Gm.)	35	0.03	5.5	...	0.42	0.25	7.5	...
Vegetable:									
Green or yellow	1 1/2 cup	2	0.03	1.1	4000	0.06	0.10	0.4	8
Other	1/2 cup	2	0.02	0.6	200	0.06	0.05	0.2	5
Fruit: Citrus	1	...	0.02	0.4	200	0.05	0.05	0.3	45
Other	1	...	0.02	0.06	400	0.05	0.05	0.7	8
Potato	1 small	2	0.01	0.6	...	0.08	0.02	0.7	5
Bread or cereal whole grain or enriched	6 small	18	0.06	3.0	...	0.36	0.24	3.6	...
Butter or oleomargarine	2 lbs.	...	...	...	900	...	...	...	...

TOTAL 82 0.82 13.5 7000 1.35 1.78 14.5 71

National Research Council allowance for woman, moderate activity. 60 0.80 12.0 5000 1.20 1.60 12.0 70

serving of fruit and vegetables a day; therefore the carbohydrate in the diet should be figured from less expensive sources.

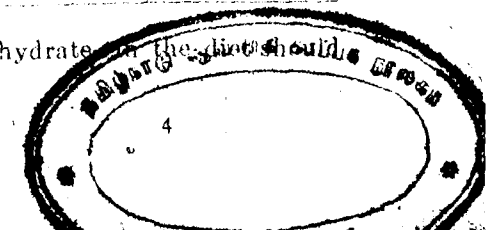


Table 4.—How to Calculate a Diabetic Diet order

Carbohydrate (C) 180 Gm. protein (P) 80 Gm. fat (F) 60 Gm. calories—1,500

	Amount	C. Gm.	P. Gm.	F. Gm.
Milk whole	2 cups	24	16	20
Protein equivalents (list 1)	6 serv.	...	42	30
Vegetables (list 2)	as desired	...	...	...
Vegetables (list 3)	2 serv.	14	4	...
Fruit (list 4) 1 serv. citrus	3 serv.	30	...	...
		68	62	50
Carbohydrate equivalents (list 5)				
whole grain or enriched	7 serv.	112	21	...
Fat or equivalent	3 serv.	...	...	12
		180	83	62

An Italian patient is accustomed to using oil, "pastas," tomato sauces and salads and has definite food patterns. Thus we see that a diet adapted to individual food habits will have a much better chance of being eaten in its entirety.

Another criticism of some of the diet plans in general use is that they may not contain adequate amounts of the essential nutrients, especially minerals and vitamins. For example, if the amount of milk allowed in the diet is appreciably limited, as it sometimes is because it is a source of carbohydrate, the diet becomes low in calcium and riboflavin. If breads and cereals are greatly restricted in amount, the diet may be low in thiamine. The consumption of gluten bread in the past has also been responsible for a lack of several elements of the B Vitamin complex in the diet. The use of whole grain products of bread and cereals made from enriched flour will tend to prevent this situation. With insulin therapy most diets may contain at least six servings of breads or cereals, which together with average amounts of the other basic foods will supply a normal intake of the vitamin B complex for the usual patient. The sample diabetic diet shown in table 3 illustrates the manner in which such a diet can be adequate nutritionally if it is planned around the basic food groups.

With these factors in mind, we have worked out a simple and useful method of dietary calculations that will result in a diet nutritionally adequate and practical for the patient. This short method has been devised primarily for the busy practitioner who does not have available the hospital or clinic facilities of a trained nutritionist; however, we have found it of equal value to the latter.

It is first necessary to have a simplified list of food equivalents; that is, common foods which furnish approximately the same amount of carbohydrate, protein and fat. This is given in table 1. More complete tables of food equivalents are to be found in any text-book of applied nutrition or dietetics. List 1 of this table gives the protein equivalents or foods which have approximately the same composition as 1 ounce (28 Gm.) of meat. We have taken as the average figure for these protein equivalents: carbohydrates—zero; protein—7 Gm.; fat—5 Gm. Vegetables vary in carbohydrate composition and have been classified by some authors as 3, 6 and 9 per cent or 5 and 10 per cent according to the approximate amount of carbohydrate which they contain. To simplify this classification we have grouped together the raw vegetables which may be eaten in more or less unlimited quantity (list 2) since they contain negligible amounts of carbohydrate. The vegetables of the highest carbohydrate content, such as legumes, corn and potatoes, are included in the equivalents with bread and cereals in list 5. The rest of the vegetables are grouped together in list 3, and a serving of these vegetables, or one-half cup, is figured as 7 Gm. of carbohydrate and 2 Gm. of protein. These figures represent average values as determined by actual composition and weighted according to the frequency with which the foods are consumed. For example, over a period of one year patients were questioned in the Diabetic Clinic of

Table 5.—Number of Servings of Carbohydrate or Fat Equivalents to complete the diet prescription

180 Gm. carbohydrate in prescription
68 Gm. carbohydrate in diet from sources other than bread or equivalent
16 [112 Gm.
7 servings of carbohydrate equivalent to fill prescription
60 Gm. fat in prescription
50 Gm. fat from sources other than butter
4 [10 Gm.
2 ½ or 3 tsp. of fat equivalent to fill prescription.

the Outdoor Department, Peter Bent Brigham Hospital, regarding the types of vegetables they ate on the preceding day. Five hundred and sixty-two reported eating a "5 per cent" vegetable and 482 a "10 per cent" vegetable. Thus, these observations help to substantiate the validity of using a value of 7 Gm. of carbohydrate per serving of these vegetables. Fresh fruits range considerably in their carbohydrate composition. Therefore, for uniformity the servings of fruits in list 4 are converted into amounts which yield approximately 10 Gm. of carbohydrate. List 5 consists of the carbohydrate equivalents. These foods have the same composition as one slice of (baker's) bread which has a value of 16 Gm. of carbohydrate and 3 Gm. of protein. Fat equivalents are given in list 6 and are equal to 1 teaspoon of butter containing 4 Gm. of fat. Since the composition of milk differs considerably from that of other foods, it is placed in a separate category. Moreover, it supplies many of the essential nutrients to the diet and, therefore, it is considered basic in the diet and should be included each day.

Table 6.—Sample Day's Menu

The carbohydrate is divided approximately in these meals on the basis of 2/7, 2/7, 2/7, 1/7.

Breakfast	Lunch	Dinner
Grapefruit—½	Toasted cheese sandwich	Roast leg of lamb—4 Oz. (113 Gm.)
Soft cooked egg—1	American cheese—1 Oz. (28 Gm.)	Carrots—½ cup
Oatmeal—½ cup	Bread—2 slices	Mixed green salad
Whole wheat toast—1 slice	Fat—1 tsp	Small potato—1
Butter or oleomargarine—1 tsp	Tomato salad	Bread, white, enriched—1 slice
Milk—1 cup	Prunes—2	Butter or oleo—1 tsp.
Coffee	Tea	Orange slices
		Coffee
	Night Lunch	
	Milk—1 cup and graham crackers—2	

Table 2 summarizes the carbohydrate, protein and fat content of the various food equivalents listed in table 1. By the use of this table it is possible to calculate diet prescriptions with considerable ease and simplicity, taking into account the amounts of each of these food groups which the patient is desirous of eating. Nutritive adequacy of the diet is generally assured by seeing that at least one or more items from each of these food groups is included in the diet and by selecting a variety of vegetables and fruits in order to supply daily a serving of a green or yellow vegetable and of a fruit or vegetable which is a good source of ascorbic acid. Variety in the diet is achieved by making use of the food equivalent.

Tables 4 and 5 are specific examples of the use of this method in calculating a diet for a patient with diabetes.

To determine the number of servings of carbohydrate equivalents or fat equivalents required to complete the diet prescription, it is necessary only to:—

1. Subtract the number of grams of carbohydrate (68) furnished by the other sources of carbohydrate in the diet from the amounts prescribed (180) and divide the result by 16, the number of grams of carbohydrate in one serving of carbohydrate equivalent.

2. Follow the same procedure with regard to fat, except to divide the result by 4, the number of grams of fat in one serving.

The amount of protein in any diet may be adjusted to the prescription by adding or subtracting 1 Oz. (28 Gm.) of meat or its equivalent.

6 gives a sample day's menu which is based on the foregoing diet outline and makes use of the food equivalents in table 1.

Conclusion—A simplified method for the rapid calculation of diabetic diets has been presented which should be of help to the busy practitioner.

Reactions to Intravenous Administration of Solutions—L. Redemaker J.A.M.A.

27th Dec. '47—Despite the fact that many articles have appeared concerning the cause and elimination of pyrexial reactions after the administrations of solutions by vein, there still remains much lack of knowledge on the part of physicians and hospital personnel, so that these reactions still occur with a frequency inexcusable in the light of present day knowledge. Since most of the articles have appeared in technical or surgical journals they have escaped the eye of most of those responsible for the production of solutions and the care of tubing and needles, and therefore the application of the known widespread. Commercial houses have, in general, attempted to correct the situation, but too often contact is made only with a purchasing agent who looks at the increased cost of material presented and refuses to buy it until forced to by the medical staff's complaints about reactions.

Seibert in 1923 demonstrated that the substance responsible was the product of bacteria which exist in river water and in tap water. She proved that the material passed through the ordinary distilling apparatus but could be separated by spray-trapping devices. To this I added the principle of multiple baffle plates and deconcentrator tubes. Triple distillation is not so effective in eliminating pyrogen, but will remove most of it. In 1932, following our publications many commercial firms

began to prepare for sale pyrogen-free solutions. A biologic test was added—observations of leukocytes and temperature in rabbits after injection of test amounts intravenously, and therefore commercial houses now put out pyrogen-free solutions of all types. In hospitals where solutions are prepared by technicians and nurses this principle of proper distillation is often unknown or disregarded with disastrous results. Other methods have been devised, especially that of Co Tui by absorption filtration through asbestos filters, but none of these have become commercially applied.

The care of glassware and tubing remains the predominating factor in production of reactions. Those responsible for their care and preparation frequently know little of the facts, and often, type of rubber and other factors are blamed which have nothing to do with the problem. The main fact is that tap water is the source of contamination, and any glassware or tubing rinsed or washed in tap water will produce pyrogen unless sterilized within an hour. Glassware in commercial houses is washed and sterilized simultaneously by use of steam jets. In hospitals it is too often simply rinsed, and distilled water and drugs are introduced into it and sterilized at the leisure of those concerned, which leads to gross contamination and production of pyrogen before sterilization is done. One must remember that bacteria themselves do not produce reaction, but their toxic products will do so. It has

recently been demonstrated that the film of moisture within an ordinary intravenous needle can produce enough pyrogen to cause a reaction if grossly contaminated with tap water.

Similarly tubing rinsed with tap water and allowed to lie around in the laboratory will become contaminated in an hour's time. One may well wonder why all intravenous treatments are not attended by reactions if the principle of immediate sterilization after washing is not carried out, but one must remember that concentration of pyrogen-producing bacteria varies in various tap water and is increased if the water is stagnant in pipes for some time. Several commercial houses have attempted to prevent these tubing reactions by furnishing pyrogen-free disposable tubing, either cellophane or rubber, and as long as these are used with pyrogen-free solutions reactions can be eliminated. These sets are, however, rather expensive, especially when a great deal of solution is used. Pyrogen is readily soluble and can easily be washed out of tubing and glassware by simple distilled water—so that tubing, needle and glassware can be easily cleansed of it—but immediate sterilization must follow such preparation. The old method of boiling in Sodium bicarbonate wastes time and does not eliminate all pyrogen and reactions.

Another frequent source of difficulty, if all these methods are followed by hospitals preparing their own solutions, is the accumulation of pyrogen in distilling apparatus. This factor produces sudden epidemics of reactions. In commercial preparation the need for cleaning apparatus is discovered by the biologic assay—Without this an arbitrary time for cleaning the apparatus must be set—at sufficiently frequent intervals to prevent these epidemics of reactions.

Much has been written concerning speed shock, and these writings are heeded to such an extent that interns and residents often introduce fluids so slowly that three to four hours are often used for one infusion. This causes great discomfort to the patient and often defeats the purpose for which the medication is given. Such slowly given fluids will not, for instant, correct hypochloremia if the patient loses

more chloride from gastric drainage or vomiting than the infusion supplies. In all the intravenous solutions which I have seen administered, I have never seen speed shock if cardiac reserve is adequate. It is true that if pyrogen exists in solutions or tubing slow introduction may prevent a reaction if the concentration of pyrogen is low enough, but in pyrogen-free solutions administered through pyrogen-free sets, this should not be a factor.

Finally, if tubing or needles are suspected, the simple expedient of rinsing them and wasting 100 c.c. or so of the solution will, because of the extreme solubility of pyrogen, prevent reaction if pyrogen-free solution is used. This was suggested by me in 1930 and yet has received little attention.

Summary & Conclusions.—Pyrogenic reactions from intravenous solutions remain a problem in many hospitals although the means to eliminate them entirely are well known. Immediate sterilization after proper distillation will eliminate pyrogen from solutions, provided that glass containers are similarly sterilized after cleansing and rinsing with distilled water. Periodic cleansing of distilling apparatus is necessary. Immediate sterilization after rinsing with distilled water is necessary to prevent production of pyrogen in moisture films within tubing, needles and glassware. Use of disposable tubing and sets will eliminate reactions due to these factors. Cleansing of tubing just before administration of fluids by wasting 100 c.c. or more of the solution and thus rinsing the apparatus will prevent reactions if non-disposable tubing is used, and is always a safety factor if there is doubt of the complete absence of pyrogen in tubing.

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Cough as a Symptom—*Journal of the Medical Clinics of North America*—Cough is a common symptom which often is not properly evaluated nor effectively treated. While it may be distressing and purposeless it more often is a necessary and useful act so that suppression would be hazardous. Although cough can be voluntarily produced it commonly is a purely reflex response but is often reinforced by volitional effort.

Physiological Considerations. Cough is dependent upon a local stimulus which originates nerve impulses that are transmitted by afferent nerves to the medulla. The reflex arc is completed through motor or afferent fibers innervating the respiratory and laryngeal muscles. The source of the impulses commonly originates in the air passages and stimulates sensory nerve endings of the pneumogastric and glossopharyngeal nerves. These impulses are carried to the respiratory centres in the medulla and excite and coordinate the spinal centres. There results increased activity of the inspiratory centre, stimulation of the adductor centre of the larynx and increased excitation of the expiratory centre. The act of coughing therefore can be divided into three phases, namely, inspiration, compressive and expiratory. During the inspiratory phase there is a deep, often quick inspiration. This is followed by closure of the glottis due to adduction of the vocal cords reinforced by the ventricular bands. This results in an increase in the intrapulmonary pressure, the compressive phase, immediately preceding expiration. During the expiratory phase the vocal cords and ventricular bands are quickly separated and air is forced out with the production of characteristic cough sounds.

The function or purpose of cough is the removal of mucus, inflammatory exudate and other material which may have originated in the air passages or foreign bodies and other materials which may have been aspirated into the tracheobronchial tree.

Cough is a complex act and its effectiveness is dependent on a number of factors in addition to the expiratory blast. Bronchologists who have had opportunity to observe the interior of the air passages during cough have been able to add enormously to our knowledge concerning this mechanism. Important among these factors are bronchial movements which are dependent on flexibility of the air passages and ability of bronchi to elongate and increase their diameter during inspiration and to shorten and decrease their diameter during expiration. During ordinary breathing the to-and-fro movement of the bronchial walls unquestionably contributes much towards loosening up and moving secretions attached to the walls and

probably aids ciliary function by this means. The movement of the air current during quiet respiration very probably exerts no influence on the movement of secretion unless the quantity is sufficient to almost completely obstruct a bronchus. During forced respiration there is unusual widening as well as elongation of the bronchi during inspiration and the expiratory blast is greatly in excess of that observed in quiet breathing. During the expiratory phase there is remarkable narrowing of the bronchi due to contraction of the smooth muscles in their walls as well as forcible compression of the peripheral portions of the lung through action of the diaphragm and the chest wall.

The narrowing of the bronchus always is more at the expense of the posterior or noncartilaginous segment and is greatly accentuated in asthmatics and in cases of pulmonary emphysema. It is observed least of all in persons with pulmonary fibrosis or anthracosilicosis. This compressive action serves a useful purpose in forcing upward into larger bronchi secretions from the peripheral portion of the lungs. While respiration of a part of secretions occurs during inspiration a considerable quantity is evacuated if there are successive expiratory efforts.

The role played by bronchial movements during respiration is extremely important in the removal of secretions from the air passages and probably is not fully appreciated. Deep inspiration with forced expiration is effective since the excursions of the bronchial walls is greater and this tends to move bronchial secretions and ultimately aids in their expulsion. The degree of mobility is practically negligible when breathing is quiet and shallow irrespective of its rate. This is observed in narcosis, acute pleurisy and injuries to the chest.

Another mechanic, which is important in the elimination of secretions from the air passages is *ciliary function*. Cilia are present in all portions of the airway except the terminal bronchioles. Under normal conditions ciliary motion and bronchial movements contribute in moving secretions from the smaller to the larger bronchi. Cilia often are hampered by inflammatory changes and during acute infections their

activity may be greatly impaired. The presence of excessive or tenacious secretions clogs ciliary activity so that it becomes practically functionless. It is more effective in the presence of thin than in thick secretion and this should be a consideration in therapy, to increase the effectiveness of cough.

A very important physiological fact, namely, the *establishment of a condition of tolerance*, must be borne in mind in a consideration of cough. Tolerance may lessen or entirely obliterate temporarily the reflex excitability of the cough excitation areas. As examples may be cited the tolerance established for the O'Dwyer intubation tube when introduced into the larynx and the absence of cough following the initial paroxysm of coughing, gagging and choking following aspiration of a foreign body into the larynx or tracheo-bronchial tree. This has been corroborated by all bronchologists, for it is a common experience that even in the absence of local anesthesia, cough will cease following introduction of a bronchoscope into the trachea or a bronchus provided the tube is allowed to remain in contact with the walls for a matter of seconds without touching new mucosal areas and producing reflex excitation. Whether this is due to exhaustion of the nerve endings in the mucous membrane is a question. A condition of tolerance is commonly observed in patients with bronchiectasis who have enormous quantity of secretion. They are able to carry on without coughing for hours and when cough is initiated volitionally or by change of posture they may evacuate three or four ounces of pus and again relapse into a state of tolerance until the bronchi again fill. A similar condition has been noted in toxic conditions, anoxia, status asthmaticus, postoperative pulmonary atelectasis and drowned lung. In children one also occasionally observes a case of almost complete absence of cough reflex.

Types of Cough—The older clinicians attached much importance to the character of the cough and this gave rise to many descriptive terms. A brassy or metallic cough was commonly associated with aneurysm of the arch of the aorta. This is due to tracheal narrowing and may also be observed in compression due to other causes and to cicatricial stenosis of the trachea,

or of a bronchus. The croupy or laryngeal cough is commonly associated with conditions which produce subglottic swelling. Paroxysmal cough, as the name implies, occurs in fits or paroxysms and is associated with certain specific respiratory infections but may occur in individuals who have an excessive amount of secretion. Cough often is referred to as dry or productive. This classification is not dependent on the patient's ability or lack of ability to expectorate after coughing, for expectoration is an accomplishment that comes from practicing. Young children and many women invariably swallow secretions after they are coughed up into the pharynx. A dry cough therefore does not necessarily mean that there is no secretion although an irritative cough is observed in bronchial carcinoma, often is unassociated with secretions and is truly nonproductive. Not infrequently however, individuals who have secretion in the peripheral portions of the bronchial tree are unable to cough it up as the cough is inadequate.

Causes of Cough—Since cough is a symptom one must ascertain the cause in order to treat it intelligently. Suppression of cough by administration of narcotics to inhibit the cough reflex may be beneficial at times but it is not adequate, or appropriate treatment unless one is aware of the cause of the cough and that suppression is desirable.

What are the causes of cough? In the common respiratory tract diseases cough is a frequent symptom and there should be no difficulty in determining its cause. This applies notably to pulmonary tuberculosis, pulmonary abscess or other pulmonary diseases that can be demonstrated by routine roentgen study and physical examination. It is important, however, to recognize the importance of cough as a symptom, in order that appropriate investigation may be instituted. Too often patients with carcinoma of a bronchus have appeared at the Clinic with a history of having been under medical treatment for six or more months without a diagnosis having been made. Often medication has been given to control a persistent cough which, if recognized as due to bronchial irritation, might have indicated the need for further bronchopulmonary investigation.

The almost universal habit of *smoking* has misled many persons, both patients and physicians, to believe that a cough was merely a "cigarette cough" and therefore could be ignored. Cough is common among excessive smokers, particularly those who smoke cigarettes. It is usually a morning cough but may be present throughout the day. It is commonly paroxysmal and is productive of tenacious secretion. There often is associated retching and gagging particularly following the first paroxysm in the morning. It is important therefore to distinguish between the cough due to certain habits and the cough due to disease of the tracheobronchial tree. Excessive smoking and chronic alcoholism produce local congestive changes in the pharynx, larynx and tracheobronchial tree. These, together with systemic effects, undoubtedly are responsible for the chronic inflammatory changes of the mucosa. The increased production of thick tenacious mucus which is difficult to dislodge gives rise not only to cough but frequent clearing of the throat.

Certain occupations requiring exposure to *dust and fumes* exert an unfavourable influence on mucous membranes of the respiratory tract. These produce chronic congestive changes, an increase in secretion and cough. In a study of patients complaining of cough it is therefore important to make inquiry into their occupation and habits.

There may be *extrarespiratory causes* of cough. We all are familiar with the so-called "ear cough" or "reflex aural cough" which can be provoked at will by irritating the external auditory canal. This results in stimulation of Arnold's nerve, the auricular branch of the pneumogastric. Cough may be a symptom of impacted cerumen. It is important therefore to examine the ears when investigating a case where complaint is made of cough alone. Cough may occur in eczema and from local inflammation and foreign bodies in the external auditory canal.

Cough also is observed in *diseases of the nose and nasal accessory sinuses*. Here too it may be unassociated with any other symptom. In many persons introduction of a cotton-tipped applicator into the nose

will provoke paroxysm of coughing and anaesthetizing the nose will immediately give relief. Certain "cough spots" in the nose have been described. Among the more common are the tubercle of the septum, posterior and anterior ends of the inferior turbinate and in many instances the middle turbinate. It is important therefore in unexplained cough to investigate the nose for evidences of large turbinates, polyps, points of contact between the nasal septum and turbinates and vasomotor disturbances. The latter would probably be part of an allergic condition.

Nasal and pharyngeal obstruction is a common cause of cough, particularly in children, and usually is worse at night, occurring after several hours of sleep. Not frequently one observes patients with nasal disease who have been treated as cases of tuberculosis or bronchiectasis although positive findings to support this diagnosis never have been secured. In these the cough is persistent, is not controlled by the commonly employed sedatives, is associated with little sputum and usually is worse at night. Examination may reveal unsuspected disease of the sinuses or obstruction to the nasopharynx by adenoids, necessitating mouth breathing, particularly when asleep. Any condition causing nasal obstruction and mouth breathing is productive of a chronic laryngotracheitis, if continued for a sufficiently long period of time. Cough is a common symptom in this group.

Cough may be associated with the *taking of food or fluid*, notably thin liquids, as water. This may occur in paralysis of the larynx, either motor or sensory, esophageal stenosis, pharyngeal diverticulum, esophageal fistula communicating with the trachea or a bronchus, or it may occur in the presence of laryngeal disease which interferes with the protective function of the larynx. It is important to distinguish between cause and effect when considering inflammatory conditions of the larynx as the cause of cough.

Posture at times exerts a very definite influence on the occurrence of cough. Patients with pharyngeal diverticulum often cough when assuming a prone posture. This is due to overflow of secretions or food particles into the airway. This also

is observed in those who have high esophageal stenotic lesions with retention of secretions or bits of food proximal to the stenosis. In these, cough is troublesome during sleep and may occur in severe paroxysms. Severe productive cough occurring when one assumes a prone position or a change in posture should suggest either pulmonary abscess, bronchiectasis or empyema with bronchopleural fistula. This is due to a change in the fluid level of secretions which, making contact with new areas of mucosa, stimulate the cough reflex.

A pedunculated tumor, foreign body or exudate in the tracheobronchial tree which on change of posture alters its position and makes contact with new area of mucosa will cause cough.

Allergy always must be considered as a cause of cough. It may produce generalized, engorgement of the mucosa of the nose producing obstruction, or similar localized changes suggesting angioneurotic edema may occur in the pharynx, larynx or tracheobronchial tree. As a rule these are unassociated with sputum.

Cough of *functional origin* does occur but one must be exceedingly careful to exclude all possible organic causes before arriving at this diagnosis.

Etiologic Diagnosis and Treatment. Since the potential causes of cough are innumerable, how should one proceed in an investigation of this symptom? A careful history of the onset and character of the cough, the presence and appearance of sputum, the time of occurrence and associated symptoms are important. In addition one should make inquiry into the occupation and habits of the patient.

A study of the chest should be made to rule out pulmonary and mediastinal diseases. No reference has been made to cardiac disease as a cause of cough. Obviously this is an important cause and the cardiovascular system should be investigated. The more common causes of cough should be excluded first. One should then proceed with an examination of the ears, nose, mouth, throat, laryngopharynx, larynx, and neck. This can be done by any physician who has a reasonable

knowledge of the upper air and food passages. The inveterate smoker should be encouraged to discontinue smoking for a time and the worker in dust or fumes should make every effort to minimize exposure in the absence of any definite localizing clinical or roentgen evidence of disease. In the absence of any demonstrable cause of cough on the basis of adequate physical examination and roentgen study the question arises whether a bronchoscopy should be done, whether iodized oil should be instilled for lung mapping to determine if bronchiectasis is present or whether the patient should be given a mild cough sedative and observed for a time. In the presence of unexplained radiographic shadows or localized physical signs bronchoscopy should be done, particularly if the patient is an adult male. Cough without or with slight sputum is a common early symptom of bronchogenic carcinoma.

Bronchography is indicated if there is any suspicion of increased bronchopulmonary markings suggesting bronchiectasis. In the presence of a history of allergy appropriate tests should be made.

One may on occasions consider the instillation into the tracheobronchial tree of a small quantity of medicated oil to allay irritation. This is particularly useful in chronic laryngotracheitis and should be employed if the history and physical findings suggest such a diagnosis. The patient may be contented with the effects of a cough sedative or intralaryngeal instillations. The physician, however, should be interested in determining the cause of the cough as well as securing relief of this symptom.

Cough is necessary to rid the tracheobronchial tree of excessive secretions as in pulmonary abscess or bronchiectasis, and in these narcotics should be used sparingly if at all. In carcinoma, cough commonly is purposeless, particularly before bronchial obstruction develops, and in these it is imperative that the symptom be recognized as an early manifestation of bronchial irritation and appropriate steps be taken to complete the diagnosis. In the postoperative case the cough "reflex" should not be supposed. Every effort must be made to maintain adequate drainage of the tracheobronchial tree to

prevent bronchial obstruction with secretions and the occurrence of postoperative pulmonary atelectasis. A similar regimen should be employed following injuries to the chest.

Much has been written concerning the use of cough mixture in chronic cough. If cough is purposeless, cough sedatives may be indicated. These should be used for brief periods however, for not only do they suppress the cough reflex but they also tend to diminish normal bronchial secretion. When cough is inadequate, due either to the presence of thick tenacious secretions which adhere to bronchial mucosa and cannot be dislodged by bronchial movements or due to ciliary

activity, so-called stimulating expectorants are recommended. If these increased the fluid content of bronchial secretion so that it could be more readily coughed up there would be justification for their employment. Inhalations of carbon dioxide and oxygen increase the quantity of sputum and have been highly recommended.

In conclusion, the physician must regard cough as a symptom and while relief should be afforded the patient while the cause of cough is investigated, merely suppressing cough with a narcotic often will prove harmful. A more comprehensive knowledge of the mechanism of cough and its function is necessary to manage it successfully.

- Q. Are Penicillin lozenges effective in the treatment of tonsillitis or pharyngitis?—*E.E.N.T. Apr. 48.*
- A. The report of Taylor, Culver and Nungester (Ann. Otol., Rhinol. & Laryngol, 55:743 (Dec. 1946) on the use of lozenges, each containing 500 units of penicillin in a lactose base, states that the lozenges were of value after tonsillectomy. These patients appeared to have less membrane formation and complained of less pain. No apparent benefit was observed in patients with acute tonsillitis or severe pharyngitis. Cases of early pharyngitis seemed benefited. The authors suggest that the lozenges seem effective in superficial infections of the throat, less effective in superficial infections of the throat, less effective when organisms have penetrated deeper into the tissues. Bacteriologic studies demonstrated that the total bacterial count appeared unaffected in some patients while in others it was markedly reduced. Strpt viviridans was completely eliminated in 14 of 26 patients. In 3 patients this organism proved to be penicillin resistant. Penicillin could rarely be demonstrated in the mouth 10 minutes after disappearance of the lozenge.

July 1948]

ASSOCIATION NOTES

CHINGLEPUT BRANCH

President : Dr. B. G. Shenoy.
Vice-President : Dr. P. S. Srinivasan.
Secretary and Treasurer : Dr. R. Varadharajan.

The annual gathering and conference of the above association was held on Saturday the 10th April 1948 at 1-45 P.M. at the Vedachalam Buildings (Municipal Office Meeting Hall). Col. S. L. Bhatia, C.I.E., M.C., M.A., M.D., F.R.C.P., F.R.C. (E) Surgeon-General with the Govt. of Madras presiding.

The Secretary Dr. R. Varadharajan read an address of welcome and presented a purse of Rs. 305/- to the Surgeon-General towards Refugee Doctors Relief Fund.

In the course of his address Col. Bhatia observed that this annual gathering was meeting for the first time after India became free and also for the first time after the demise of Mahatma Gandhiji. Hence it has acquired a special importance. The members of the medical profession had to learn a great deal from Gandhiji's life and teaching. He lived the life of a true physician and was particularly concerned with the health of the people. The greatest tribute that they could pay to Mahatma Gandhiji's memory was to have him as their source of guidance and inspiration in their work.

The members of the medical profession, Col. Bhatia continuing said, had a great part to play in Free-India. He referred to the unsatisfactory state of the Public Health in the country with particular reference to mortality the incidence of which was greater than in any other countries. The Indian Medical Association must play a very important part in guiding the

future medical policy of the state and the state should consult the profession on all problems concerning Public Health. In this respect the Indian Medical Association which is the premier Associations could do much by mobilising public opinion.

He then referred in detail to the Post war plan of medical relief in the province in general and in Chingleput district in particular and observed that it was gratifying to note that this district possessed two institutions, one for Tuberculosis and another for Leprosy. He also said that a tuberculosis Sanatorium would be built here, which in due course would become the largest sanatorium in the province. Concluding he said that the rural medical relief was the urgent problem but it was not an easy one and the Government was giving a very careful attention to this.

Dr. R. K. K. Tampan, B.A., F.R.C.S., M.R.C.O.G., Asst. Superintendent, Govt. Hospital for Women and Children, Madras, gave an instructive lecture on Haemorrhages in Pregnancy and late Labour, during the course of which he stressed the necessity of Blood Bank in all district and taluk Head quarter hospitals as that could go a long way in greatly reducing the maternal mortality.

Dr. P. Kutumbiah, M.D., M.R.C.P., Principal, Stanley Medical College, Madras in the course of his lecture on "Diagnosis and Management of Enteric Fever" observed that the highest incidence of enteric fevers was in

only India and certain countries are free from it. Enteric fever is a preventable disease and now that we have become a secular state, we should force every citizen to observe the rules for prevention of diseases on pain of prosecutions.

The business meeting was conducted in the meeting at 11 A.M. on 10.4.48 for the election of President in place of Dr. B. G. Shenoy, M.B.B.S., L.O., who has been transferred and transact other subjects.

Since the Vice-President was not present Dr. R. K. K. Tampan occupied the chair.

"At the outset the following condolence resolution on Mahatma Gandhiji's death was moved by the President and passed all standing for 5 minutes.

"This Association deeply mourns the demise of Mahatma Ghandhi the father of the nation, apostle of Peace and amity and the source of strength for the millions of the country and who

defied death but became a martyr for the principles which he preached and practised all his life."

Dr. C.S. Venkatasubramanian, M.B.B.S., was elected unanimously as President of the association. Then Dr. C. S. Venkatasubramanian occupied the chair and conducted the further proceedings. The following two resolutions were passed unanimously.

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

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

The Secretary, Indian Medical Association South Indian Provincial Branch is requested to forward the above resolutions to the Govt. and take necessary steps.

COIMBATORE BRANCH

President : Dr. N. K. Sampath.
Vice-President : Dr. C. Nanjappa.
Secretary : Dr. A. G. Leelakrishnan.
Associate Secretary : Dr. S. Ganapathy.
Treasurer : Dr. T. V. Sivanandam.

The monthly clinical meeting of the association was held at 6-30 P.M. on Saturday the 24th July 1948 in the association premises with Dr. N. K. Sampath, the President in the chair. Fifty-five members were present. After Tea, final nomination of a President for the South Indian Provincial Branch was taken up and it was unanimously decided to confirm our election last month of Dr. P. N. Ramasubramanian of Madura.

The President then introduced Dr. R. G. Krishnan, F.R.C.S., former Professor of Midwifery, Andhra Medical College and requested him to deliver his address on "Abnormal Vaginal Bleeding."

Dr. Krishnan dealt at length under various heads the different types of abnormal vaginal bleeding, their percentage of occurrence and their treatment. He pleads for an early diagnosis of cancer of the cervix and uterus and

warned the practitioner of neglecting or minimising the importance of minute or occasional bleeding on vaginal examination.

The President in his concluding re-

marks thanked the lecturer for his brilliant post graduate address to our members. He also thanked Dr. S. Gopalswamy, M.B.B.S., for his Tea. The meeting then terminated at 8.40 P.M.

SALEM BRANCH

President : Dr. B. A. Rajarathnam.
Vice-President : Dr. S. Krishnamurthy Rao.
Secretary : Dr. K. R. Hariharan.
Treasurer : Dr. K. V. Dhanakoti Naidu.

The Monthly meeting of the Association was held at the Foulk's Hall, Salem at 6 P.M., on Saturday the 26th June, 1948, with Dr. B. A. Rajarathnam, the President in the chair.

Forty six members attended the meeting and the mofussil was well represented. The District Medical Officer Dr. R. Shanmugham Pillai, had sent a letter to the President, expressing his inability to attend the meeting due to pressing emergent professional work.

Drs. K. Ramanathan, M. Subramanian and K. V. Bala Ganghadhar, entertained the members to some delicious light refreshments.

The Proceedings commenced at 6.45 P.M., with the President's opening remarks.

Dr. K. Ramanathan proposed the following resolutions:—

"The Salem District Medical Association heartily felicitates His Excellency Sri C. Rajagopalachariar on the assumption of office as the first Indian Governor-General of Free India. This association rejoices in the fact that he is a citizen of Salem and hopes that he will keep in mind the health of a nation is its wealth."

The resolution was seconded by Dr. K. Rajagopal Naidu and passed unanimously with enthusiasm.

The minutes of the annual meeting held on 3rd May and the emergent meeting held on the 15th May, were read, approved and confirmed.

Dr. S. R. Rajaram proposed that Dr. P. A. S. Raghavan, Hon. Secretary, South Indian Provincial Branch of Indian Medical Association, Trichy, be elected as the nominee of this association for the presidentship of the Provincial Branch of the Indian Medical Association. In moving his proposal, Dr. S. R. Rajaram acquainted the members of the great sacrifices done by Dr. P. A. S. Raghavan for the cause of the Indian Medical Association in general and the South Indian Provincial Branch in particular and of his indefatigable energy.

Dr. K. V. Bala Ganghadhar seconded the proposition and there being no other proposal, Dr. P. A. S. Raghavan was duly elected as our nominee for the presidentship of the South Indian Provincial Branch of the Indian Medical Association.

Election of representatives to the Central and Provincial Councils were postponed to the next meeting.

The President introduced the subject of resolutions in the following words.

"The administrators of this Province have not so far given out their minds as to what their Public Health Policy

is going to be. They have likewise kept us in the dark regarding the post-war schemes drawn up long since. Matters of Public Health must primarily be the care of the State and it cannot afford to evade the issue by talking of their perennial financial commitments. In a district like Salem, which is rich in area and population but sorely lacking in the coin of the realm as well as health amenities, it is the duty of the State to safe-guard the health of the people. The need for a Tuberculosis Sanatorium for the District is a long felt one. Our cries demanding the early establishment of a Sanatorium have been oft-repeated, and if the Government do not avail themselves of the present opportunity of acquiring the B.G.H., Salem for utilisation as a T.B. Sanatorium, I am afraid the question may not be solved for decades to come.

The following resolutions were then passed unanimously after being duly proposed and seconded:—

1. "It is regretted that in spite of the resolution of 30th August, 1947, the waiting of a deputation of the Medical Association on 13-10-47 on the Minister for Public Health and the sympathy evinced by the Surgeon-General in his address to the Association on 3rd May, 48, the Government have decided to turn down the proposal of acquiring the B.G.H., Salem for utilisation as a Tuberculosis Sanatorium.

This association while reiterating its demand for the immediate establishment of T.B. Sanatorium for the District, requests that the Government be pleased to reconsider its decision of 5-6-48 and give due weight to the representations of the Salem District Tuberculosis Sanatorium Society as well as this association and help them to acquire the B.G.H. Salem for utilisation as a T. B. Sanatorium.

Copies to the Hon. Premier, Hon. Minister for Public Health, Surgeon-General with the Government of Madras,

Secretary South Indian Provincial Branch of Indian Medical Association, and Secretary, Salem District Tuberculosis Sanatorium Society.

2. "To facilitate maintenance of Statistical data regarding progress and treatment of cases of various diseases in institutions and thereby promote research work, this association strongly urges the Government to provide more lay staff in all institutions at as early a date as possible.

This association further voices the opinion that such establishment of more lay staff, will divert the precious time of the medical staff, lost at present, in compiling data, into more useful channels and thereby benefit the suffering Public and State at large.

Copies to the Hon. Premier, Hon. Minister for Public Health Surgeon-General with the Government of Madras, Secretary, S.I.P. Branch of I.M.A., Trichy.

3. "The supplementary quota of petrol allowed to medical men, since the recent drastic cut on the basic ration, remains more or less the same as the old level. This imposes a great restraint on the practitioners visiting work and has compelled them many a time to refuse taking up cases where emergent medical assistance was absolutely necessary. Much useful time is lost on slow moving transport.

Under these circumstances and considering that the medicalmen top the rank of the essential services, this association requests the Government to allow more liberal ration of petrol to the members of the Profession, since their present allotment falls far short of their essential needs."

Copies to Hon. Minister for Transports, Provincial Petrol Rationing Officer, and Secretary, S. I. Prov. Branch of I. M. A. Trichy.

Dr. V. Sambasivam, Tuberculosis Specialist, Salem, then read a very exhaustive paper on Tuberculous Cervical Adenitis.

The learned specialist dwelt in great detail on the aetiology, the pathological changes, the clinical features, symptoms and course, differential diagnosis and treatment of the condition with the result that there was no room for any point of discussion to be raised by any member.

The greater incidence of the Bovine type of infection in India than is

usually thought of, on the aetiological side and the necessity for removal of septic tonsils and adenoids in the treatment, were among the important points stressed by the speaker in the paper.

After the Secretary's proposing a vote of thanks to the hosts of the evening, the learned lecturer, the President, and all the members especially the mofussil members for evincing such keen interest in our proceedings the meeting was dissolved at a late hour in the evening.

TANJORE BRANCH

President: Dr. Janab Mohamad Ismail
Vice-President: Dr. T. M. Pillai
Secretaries: Dr. E. K. Menon
Dr. P. A. K. Nair

The monthly meeting of the Tanjore District Medical Association was held on Sunday the 23rd May 1948 at 5 p.m. at the Medical School Buildings, Tanjore. 34 members were present.

After Tea provided by the Secretaries of the Association, the meeting commenced with Dr. Janab Mohamad Ismail in the chair.

The minutes of the last meeting (annual) were read out by the Secretary and adopted.

Dr. N. R. Subramaniam gave an interesting lecture in detail on "Streptomycin" supported by X-ray pictures.

Dr. N. Ramanathan and Dr. P. A. K. Nair spoke about their experiences regarding the use of streptomycin on some cases of pulmonary Tuberculosis.

The President in giving out his views regarding the use of streptomycin emphasised that streptomycin is the drug of choice in the treatment of cases caused by gram negative Bacilli and also

in properly selected cases of Pulmonary Tuberculosis. He also suggested the distribution of typed copies of the literature on streptomycin with the full details of indications, contraindications and toxicity of the drug, to all members of the association.

The meeting terminated with a vote of thanks proposed by the Secretary to the lecturer, President and all the guests of the evening.

The monthly meeting of the above association was held on Sunday the 27th June 1948 at 4-30 p.m. at the Medical School Buildings, Tanjore. 33 members were present.

After Tea provided by Dr. S. Narayan, the meeting commenced with Dr. T. M. Pillai—Vice-President of the association in the chair.

The minutes of the last meeting were read by the Secretary and adopted by the house.

Then the attention of the house was drawn to a letter received from the Secretary of the S.I.P. Branch requesting the members to nominate a member of the I.M.A. for the Presidentship of the South Indian Provincial Branch.

Dr. T. S. Tirumurthy was unanimously nominated. The circulars received from the General Secretary of the Reception Committee in connection with the Scientific meetings of the Third South Indian Provincial Medical Conference

to be held in Madras during October 1948 were distributed among the members present.

Major E. K. Menon, M.R.C.S. Ex-Surgical Specialist to the I.M.S., read a paper on "Care of patients after operation".

The meeting terminated with a vote of thanks to the lecturer for his interesting lecture and to Dr. S. Narayanan for entertaining the members with fine Tea.

TRICHINOPOLY BRANCH

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

A monthly meeting was held on 19th June '48 at 5-30 P.M. in the premises of the Bishop Heber High School, with Dr. T. N. Subramanyam in the chair. About 50 members were present.

Dr. G. Visvanathan, M.B.B.S., was 'At Home'.

Dr. P. A. S. Raghavan was nominated as President of the South Indian

Provincial Branch of the I. M. A.

Dr. S. K. Sundaram M.D., gave the members quite a lot of very useful information by way of answers to questions from members. The meeting came to a close at about 7-30 P.M. with a vote of thanks to the lecturer, the host and the authorities of the Bishop Heber High School.

THE ALL-INDIA MEDICAL LICENTIATES' ASSOCIATION

MADRAS BRANCH

A General Body Meeting of the above branch was held on the 30th of June 1948 at 6-30 P.M. at the Gokhale Hall with Dr. P. B. Anangarachari in the Chair.

Resolutions. 1. Moved from the Chair: This meeting of the Madras Branch of the All-India Medical Licentiates' Association conveys to H. E. Sri C. Rajagopalachari its heartiest congratulations and greetings on his accession as the First Governor-General in Independent India, feels proud that a top ranking political leader of South

India has been conferred this unique distinction and honour and prays for his long life, prosperity and signal success as an accredited administrator of our Motherland.

2. This meeting of the Madras Branch of the All-India Medical Licentiates' Association offers its hearty congratulations and felicitations to Dr. S. Gurubatham on his being chosen as Minister in the Government of Madras, feels ever so proud that one of their esteemed colleague and member of the Association has been

conferred this honour and prays for his long life, prosperity and unique success in his administration.

It has been decided to form the Reception Committee of the 6th Provincial Conference and the Madras Branch of the A.I.M.L.A. do form the Reception Committee of the ensuing Conference with powers to co-opt. the following members:—

1. Dr. A. M. Sivaraman 2. Dr. S. V. Subba Rao 3. Dr. S. Natarajan 4. Dr. C. Narasimhulu Naidu 5. Dr. P. S. Srinivasan 6. Dr. A. C. K. Kebbar 7. Dr. P. Krishnaswamy 8. Dr. T. R. Vaidyanatha Iyer 9. Dr. R. Sankaran 10. Dr. G. N. V. Krishnan.

Dr. P. B. Anangarachari was elected Chairman of the Reception Committee. Drs. G. Subbarayudu and G. J. Narayanaswamy Naidu were elected as Vice-Chairmen, Dr. K. Rama Rao and C. Rama Rao were elected as General Secretaries and Dr. D. V. Venkappa as Publicity Officer.

There was a heated discussion on the G. O. No. 2711 dated 4-8-47 pertaining to the Civil Medical Services in Madras.

Dr. D. V. Venkappa recounted the various steps taken by the Association for the unification of the Medical Services without distinctions as Licentiates and Graduates and abolition of the cadre of Sub-Assistant Surgeons in order to give equal rank to all Medical Officers with equal opportunities to reach the highest position. He said the members of the Committee of Action had waited in deputation of the Minister for Public Health and the Surgeon-General repeatedly from 1946 and were assured that their grievances would be redressed. But in spite of all these assurances their grievances remain unredressed. After a long discussion the following resolutions were passed.

The Madras Branch of the All-India Medical Licentiates' Association views with grave concern the attitude of the Govt. of Madras in not giving effect to the recommendations of the Surgeon-General with the Govt. of Madras and those of the Committee of Action on behalf of the Provincial Branch of the A.I.M.L.A. with regard to the unification of the cadres in the Civil Medical Services and further draws the attention of the Govt. to the combined deputation of the Committee of Action of the A. I. M. L. A. and Provincial Branch of the I. M. A. on September 29, 1947 about the needed clarification and revision of G. O. No. P.S. 2711 dated the 4th August 1947 as a result of which the Govt. promised to pass orders soon and reconsider favourably the question of 1 and 2 grades in the cadre of Civil Assistance Surgeons making the whole service a gazetted one and eventually bringing about the provincialisation of the Local Board Services.

The Madras Branch notes with regret the inordinate delay and suspense caused in the nonclarification and revision of the G. O. as desired and calls upon the Govt. to expedite necessary orders to allay the growing discontent in the rank and file of the Civil Medical Services.

Dr. K. Rama Rao the sitting member has been reelected as a member of the H. P. Board, Madras. It has been decided to give a Tea Party to Dr. N. S. Narasimha Iyer by a Committee of hosts.

A Sub-Committee was formed consisting of Drs. P. B. Anangarachari, R. Sankaran and a few others to raise funds for the presentation of a purse to Dr. D. V. Venkappa for his meritorious services to the Association and a resolution to this effect was unanimously passed.

Correspondence

July, 1948]

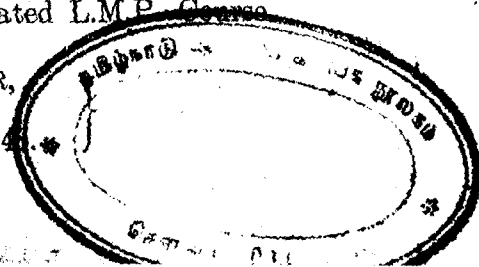
REORGANISATION OF MEDICAL EDUCATION

SIR,

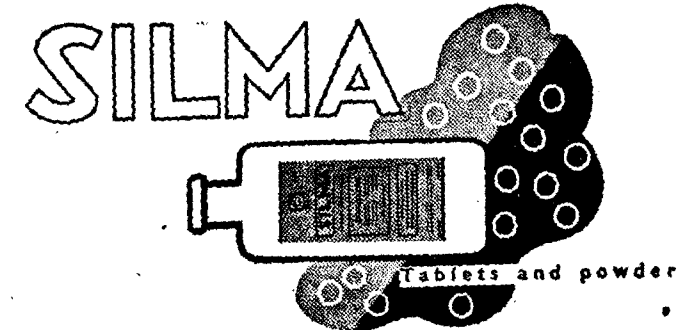
The medical profession is suffering from too many complexes, as Graduates, Licentiates and other practitioners of indigenous medicine existing in it. The slogan that the British have been the cause for the watertight compartments in the noble profession to serve their own ends can no longer hold good after India has won her full freedom and the representative Government is ruling it. The profession cannot ethically be improved and standard of its efficiency raised, unless the Government desired to establish one standard of medical education and examination of the University type with one kind of basic qualification, as is the case in America where M.D. is the only one basic qualification for the whole country. This sort of re-orientation and unification will certainly enhance the status of the profession in India in the eyes of the medical world at large and stimulate further the genius of the medical people for research. It should be the aim and object of the Government to see that there shall be only one administrative head for the province with only one Medical Council to control the profession ethically. Homeopathy and Indigenous systems of medicine should be given the place of post-graduate study. It is not wisdom, if the Government should entertain the view that there should be cheaper medical men available for service, because the Government cannot provide funds fully for the basic collegiate course. It is evidently a lame excuse. The National Government should no longer continue the old policy of 'Divide and Rule' of the profession in India. They should make a public debt, if necessary and honestly spend it for the Health Schemes or stop further extension of 'prohibition' to the remaining parts of the province. I assert that it will be the right step in the right direction to close down the institutions of indigenous systems of medicine and attach the same subjects to the existing medical colleges as part and parcel of its curriculum, or make it a post-graduate course attached to the medical colleges. To provide the medical personnel as per the recommendations of the Bhore Committee, the Government should open adequate number of medical colleges in the province. It is earnestly hoped by one and all that the Government will not be so blind as to revive the long forgotten and much hated L.M.P. Course.

GUNTUR,

12-8-1948



G. V. HANUMANTHARAO,
Vice-President,
Andhra Provincial Branch, I.M.A.



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Detailed Literature and Free Samples on request.

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"Doctor, I'm so frightened. This is my first operation."

"O, don't be afraid. It's my first operation too."

Doctor: I shall give a local anæsthetic first.

Mrs. newly rich: Oh, no, doctor, I can afford anything. Please get me the best foreign anaesthetic, whatever the cost.

Chinese Patient (on telephone): "Doctor what time you fixee teeth for me?"

Doctor: "Two thirty—all right?"

Chinese: "Yes, tooth hurty alright, but wha' time you fixee?"

A doctor had two entrances to his house, one through his clinic and the other on the lane for his family. One day some girls came to his place to meet his wife. "Please come that side, I shall show you the family way." He couldn't understand why they left the place with a furious temper.

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(Sd.).....

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MONTHLY JOURNAL OF THE SOUTH INDIAN BRANCH
OF INDIAN MEDICAL ASSOCIATION



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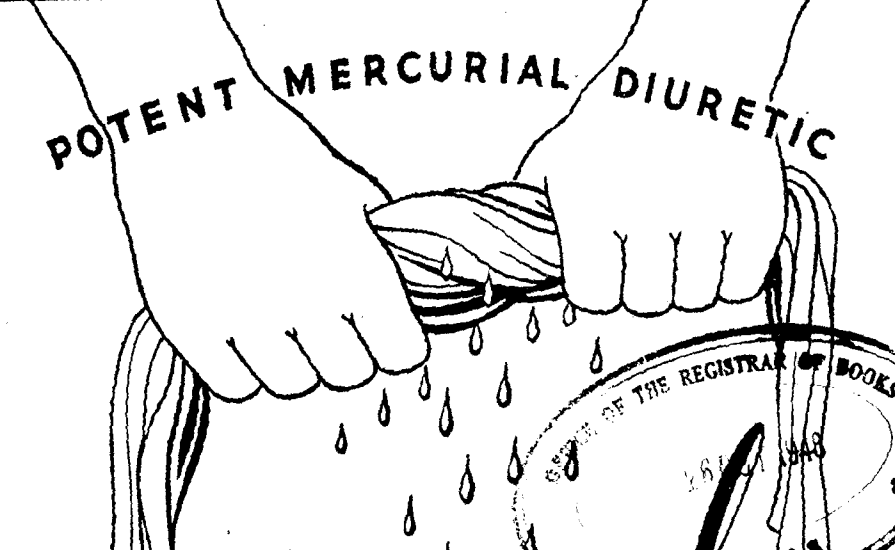
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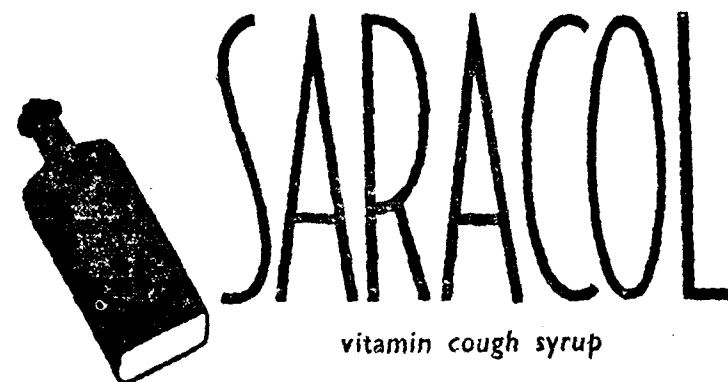
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Tehpin Hydrate	..	0.4	..
Ethylmorphine Hydrochloride	..	0.3	..
Sodium Benzoate	..	0.3	..
Calcium Levulinate	..	10.0	..
Glycerol	..	50.0	..
Vitamin C	..	1.5	..
Honey and flavouring	..	q.s.	

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THE THIRD SOUTH INDIAN PROVINCIAL MEDICAL CONFERENCE

(INDIAN MEDICAL ASSOCIATION)

CIRCULAR

The Third South Indian Provincial Medical Conference will be held in Madras on the 22nd, 23rd and 24th October, 1948 at the premises of the Madras Medical College. There will be a Medical Exhibition and also a Scientific Session in connection with the Conference.

Boarding and Lodging for the delegates will be in a special camp. Arrangements can be made for delegates who wish to stay in hotels (if accommodation is available) on their previous intimation to the Reception Secretary at least 15 days before the conference, and they have to bear the hotel charges. Those who wish to stay in the camp must also write before one week for making arrangements for their accommodation and also must inform beforehand by what train they will be arriving and by what date, in Madras. All communications with reference to boarding and lodging must be addressed to:

DR. K. RAMA RAU,
Reception Secretary,
216, Govindappa Naick Street,
G. T. MADRAS.

Each delegate will be charged Rs. 10/- which includes the delegates fee and also the cost of the Souvenir, boarding and lodging charges.

The following is the tentative programme for the Conference and detailed programme will be published early next month.

P. T. O.

K. L. NARAYANA RAO,
General Secretary.

THE THIRD SOUTH INDIAN PROVINCIAL MEDICAL CONFERENCE

SCIENTIFIC SESSION

Friday the 22nd October, 1948 AFTER-NOON

"Symposium on Chest Pain"

President: Dr. G. Dinker Rao, M.D.
Opener: " K. S. Sanjivi, M.D.
Surgical Aspect: " R. Mahadevan, M.S., F.R.C.S.
Pathological Aspect: " D. Govinda Reddy, M.D.
Radiological Aspect: " K. M. Rai, F.R.C.S. (E) D.M.R.

Saturday the 23rd October, 1948 FORE-NOON

President: Dr. P. Vadamalayan, M.B.B.S.
Sterility—Male: " K. V. Mathew, L.M.S.
—Female: " R. K. K. Thampan, F.R.C.S., M.R.C.O.G.
Industrial Medicine: " K. S. Krishnan, M.B.B.S.
Electro Encephalography: " S. T. Narasimhan

AFTER-NOON

"Symposium on Disorders of Micturition"

President: Dr. B. M. Sundervadan, F.R.C.S.
Opener-Surgical: " C. P. Viswanatha Menon, F.R.C.S.
Gynaecological Aspect: " (Miss) E. Maduram, F.R.C.S., M.R.C.O.G.
Venereal Aspect: " R. V. Rajam, M.S., M.R.C.P.
Medical Aspect: " C. K. Prasad Rao, M.D.
Radiological Aspect: " P. Rama Rao, D.M.R.

Sunday the 24th October, 1948

President: Dr. U. Krishna Rau, M.B.B.S.
Anterior-Polio Myelitis: Dr. N. S. Narasimha Iyer, F.R.C.S.
Extravasation of Urine: Dr. K. Kanaga Sabesan, M.S., F.R.C.S.
Management of Common Nasal Complaints: Dr. V. S. Subramaniam, M.B., M.Sc., F.A.C.S.
Anti Histamine Drug in General Practice: Dr. S. Sankara Raman, M.B.B.S.

Scientific Committee:

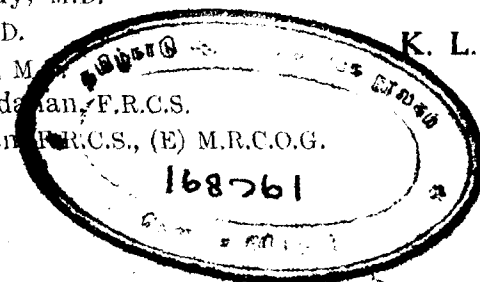
Dr. D. Govinda Reddy, M.D.
Dr. K. S. Sanjivi, M.D.
Dr. S. K. Sundaram, M.D.
Dr. B. M. Sundaravadan, F.R.C.S.
Dr. R. K. K. Thampan, F.R.C.S., (E) M.R.C.O.G.

P. T. Raghavachary, M.B.B.S.

Secy. Scientific Session.

K. L. Narayana Rao, M.B.B.S.

General Secretary.



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[No. 2

THE RADICAL OPERATION FOR HYDROCELE

BY

J. F. SHEPHERD, M.B., M.CH. (Orth.) F.R.C.S.

Simple excision of the tunica vaginalis testis in the case of a big hydrocele leaves the patient with a large amount of redundant scrotal tissues. Unless special care is taken during the operation, the cremasteric fascia may be removed or damaged, so that the testis is deprived of its natural support and considerable pain and discomfort result.

The radical operation to be described, avoids such sequelae by making a planned dissection of the affected structures, amputating those redundant, and finishing by an attempt to restore the normal anatomy of the parts. Advantage is taken of two natural cleavage planes, one superficial to the cremaster, and the other superficial to the tunica vaginalis. (Anatomie Humaine—Poirier et Charpy.)

Thorough preparation of the skin of the scrotum and surroundings is essential.

Regional anaesthesia is satisfactory provided that not only the tissues at the periphery of the root of the scrotum are infiltrated with novocain but also the base of the median septum.

An incision is made outlining suitable anterior and posterior flaps of scrotal skin. (Fig. 1.) The incision is deepened through the dartos by successive strokes of the knife and the vessels seized

before they are cut. The anterior and posterior ends of the median septum are noted.

The intercolumnar fascia now exposed is picked up at one point and incised, thus opening the loose tissue plane between it and the cremaster. The intercolumnar fascia can then be held up and divided with scissors in the line of the skin incision, vessels being seized as they come into view. (Fig. 2.)

The lower flaps of skin, dartos and intercolumnar fascia are caught with tissue forceps, retracted downwards and dissected off the subjacent hydroceles covered by the cremaster, until the lower poles are completely exposed and the flaps remain attached only by the median septum. (Fig. 3.)

This dissection is easily carried out except towards the lower pole where the remains of the gubernaculum may have to be snipped with scissors and a vein tied. Tenaculum forceps are applied to the now exposed anterior and posterior ends of the septum which is put on the stretch. The vessels on each side of the septum, among the largest in the scrotum, are clearly seen and caught. The septum is divided at the selected level, thus completing amputation of the redundant scrotal tissues. (Fig. 4.)

Attention is next directed to the hydrocele. At the upper pole lie thick fleshy strands of hypertrophied cremasteric muscle. The cremaster is always hypertrophied in a case of a large hydrocele as it has to support an extra load of fluid.

"A 2" incision is made longitudinally through one of the anterior strands of muscle and deepened through the surgically unimportant infundibuliform fascia to expose the dark tunica vaginalis. A thin blunt dissector working on the tunica separates it from the overlying coats and is worked gently to the lower pole when the incision in the cremaster is completed downwards. The edges of the incision are held in forceps and the cremaster separated from the hydrocele by blunt dissection until it is held stretched out like a sheet behind the now isolated hydrocele. (Fig. 5.) The vas deference may be slightly adherent to the cremaster and lie $\frac{1}{2}$ - 1" from the pampiniform plexus; but these structures are clearly seen during this part of the dissection and are not in danger.

The hydrocele is tapped and opened: the excess of the serous membrane is excised in the usual way. Haemostasis is secured. The cremaster is trimmed by cutting off a little of its lower end, so that it will fit the testis now without the hydrocele and consequently much reduced in size. (Fig. 6.) After being separated from the hydrocele the cremaster shrinks markedly and surprisingly little trimming may be required. The muscle is then stitched so as to re-enclose and support the testis. (Fig. 7a.)

The other hydrocele is similarly treated. (Fig. 8a.)

The anterior and posterior ends of the median septum are stitched together

(Fig. 8b.) and the suture through the cut margin continued deeply so as to refashion the septum. Into each pouch of the scrotum a drain is placed. (Fig. 9.) The flaps are brought together by a continuous catgut suture through the dartos beginning at one side and ending at the other.

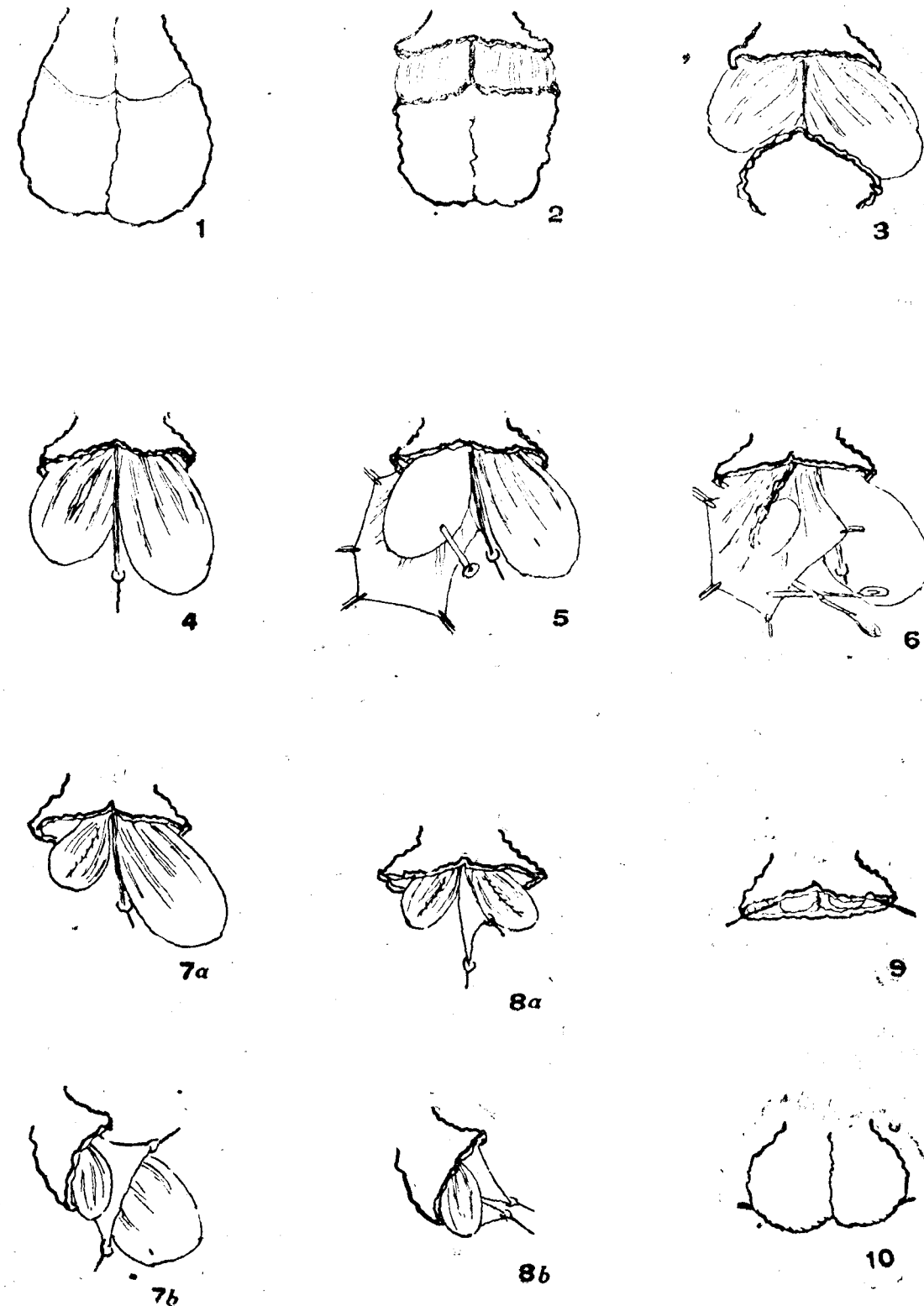
Finally the skin incision is closed. (Fig. 10)

Where the hydrocele is unilateral, an incision is made commencing below the penoscrotal junction on the median raphe anteriorly and carried round the side of the scrotum to the corresponding point posteriorly. The ends of this incision are united along the line of the median raphe. The incision is deepened down to the cremasteric fascia and the flap of scrotal tissues amputated, leaving the median septum intact. After dealing with the hydrocele, the dartos and skin are stitched separately as before.

Haemorrhage occurs from the dartos, the intercolumnar fascia, the median septum, the edges of the tunica vaginalis and from the testis. If the operation is done anatomically as described so that each of these structures is successively exposed and the vessels tied before proceeding to the next step, a post operative haematoma, the chief complication to be feared in scrotal operations, will not occur. There is little or no post operative oedema of the scrotum. Convalescence and the length of stay in hospital are markedly shortened.

Seen a year after operation the appearance of the parts is normal and the results have been uniformly satisfactory.

I wish to thank Mr. Kenneth Walker for his most helpful criticism and advice in the preparation of this paper.



INDUSTRIAL COLONY FOR TUBERCULOSIS PATIENTS

Speech Delivered by Col. S. L. Bhatia, Surgeon General with the Government of Madras, on the occasion of the laying of the foundation stone by H. E. Sri C. Rajagopalachariar on 25-8-'48 at Tambaram, Madras.

YOUR EXCELLENCY AND FRIENDS,

It is my privilege and pleasant duty to offer Your Excellency a most cordial welcome on this occasion. We doubly welcome Your Excellency, as the first Indian Governor-General of Free India and as a noble and distinguished Son of South India, who has dedicated his life to the service of the country. We are indeed proud and grateful to have Your Excellency in our midst this morning. That in the midst of so many engagements, Your Excellency so graciously consented to lay the Foundation Stone of this institution is a matter for which we are truly thankful. This indicates Your Excellency's deep interest in the health problems in this country, and especially in Tuberculosis. We are reminded of the fact, that only recently it was largely through Your Excellency's efforts, that a new Sanatorium, known as the Rajaji Sanatorium, was established in Tiruchirapalli.

I welcome Her Excellency Lady Nye who has done so much for this Presidency, particularly in the way of improving the medical facilities here. We are specially happy to have Her Excellency with us, to whom, may I say, this new industrial colony for ex-patients largely owes its existence, and to whom the institution will always owe a deep debt of gratitude. We welcome all the Hon'ble Ministers and all our friends who have so generously responded to our invitation and graced this occasion with their presence.

The idea of starting an ex-patients colony was first started a few months ago, when Her Excellency Lady Nye visited the Tuberculosis Sanatorium at Tambaram. The Superintendent, Dr. Vasudeva Rao suggested, that a colony

of this kind may be established as an adjunct to the Sanatorium for the after-care of ex-patients. This would serve the purpose of rehabilitating the ex-patients as well as decreasing the chances of relapses, and their readmission into the Sanatorium.

The Tuberculosis Sanatorium at Tambaram is growing rapidly. The existing number of beds is 110. This number will increase up to about 500 in the near future. The splendid work done here is already drawing a large number of patients from all parts of India. Thus the need of an after care colony is felt all the more.

The Institution, whose Foundation Stone Your Excellency is going to lay this morning, is the first of its kind in India. Its aims is to take care of cases of tuberculosis after their discharge from the Sanatorium, and to help in their rehabilitation.

I may say, that the colony is primarily designed for the discharged patients, who are not infectious, and are otherwise fit. They will be encouraged to live with their families in the colony. It is proposed to build separate houses for them, each house having a bed-room, a sitting room, with a verandah, in which there will be a kitchen and a bathroom. There will also be a school for children, if needed. Certain occupations will be provided for them, such as printing, carpentry etc. and they will be given remuneration for the work done. From the sale of their work, income will accrue to the colony, which will help towards its upkeep.

There will be facilities for recreation. Both indoor and outdoor games will be provided.

It is proposed, that the colony at the outset should have accommodation for 25 patients, increasing by the addition of 25 patients each year, upto a maximum of 100 patients in 4 years.

May I take this opportunity to offer our sincere and grateful thanks to the Madras Provincial Welfare Fund and its Chingleput branch for their splendid contribution, which amounts to over a lakh of rupees. Out of this, the Chingleput Branch has collected nearly Rs. 50,000/- in the course of two weeks. For this, I offer our grateful thanks and congratulations to Khan Bahadur Abdul Sattar Sahib, Collector of Chingleput, and the public of Chingleput. Our best thanks are due to Shrimati Subbulakshmi for having kindly given us a benefit performance which brought in nearly Rs. 34,000. I sincerely hope she will help us again when we appeal to her. We thank the Indian Red Cross Society, Delhi for a donation of Rs. 10,000/- towards the capital expenditure involved in setting up this institution in response to a request from Lady Nye for assistance.

I also wish to thank Messrs. Simpson & Co. for their valuable help. The colony will need the help of various industrial concerns and I feel sure that this will be readily forthcoming in the years to come.

I appeal to all the generous citizens of this great Province to assist us as best as they can in this humanitarian task of fighting against Tuberculosis.

The Sanatorium, Your Excellency, occupies an important place in the treatment of Tuberculous patients. Its efficiency was proved in the middle of the last century, and since then Sanatoria have grown in numbers in Europe and America. In India too, a number of Sanatoria has been established. May I say that the Madras Presidency takes the lead in this respect. During the last year there has been considerable

awakening of the public mind in regard to the seriousness of the Tuberculosis problem in the Province. A number of new Sanatoria has been started, and some of the existing ones expanded and enlarged. Further, only the other day, with the help of the World Health Organisation and the Health Ministry, Government of India, we have established a laboratory in the King Institute, Guindy, for the manufacture of B.C.G. vaccine, and opened a Health Centre at Madanapalle, for the control of Tuberculosis by B.C.G. vaccination.

Apart from Tuberculosis Sanatoria, clinics, hospitals, after-care colonies, and immunity by B.C.G. vaccination, there is also the essential need to improve the housing conditions, both in urban and rural areas, of a vast majority of the people. The importance of improving environmental hygiene as a step towards the prevention of Tuberculosis is undeniable. So also, is the urgent necessity of improving the nutrition of the people.

We are thus fully conscious of the vast magnitude of the problem which faces us. Tuberculosis is spreading fast and wide, and seriously undermining the health and physical efficiency of a large section of our population. We must wage a war against the disease from all possible fronts, for it is only thus that we can hope to achieve success in eradicating it. This campaign must continue relentlessly with ever increasing intensity, till our objective is achieved.

It augurs well for the future of this institution that its Foundation Stone should be laid by Your Excellency's hands today. Our success is thus assured. With Your Excellency's blessing, I hope this colony will be a boon to the unfortunate sufferers from Tuberculosis, and in due course many more such colonies will be established in the country.

A SCHEME FOR EFFECTIVE RURAL MEDICAL RELIEF

BY

K. S. KRISHNAN, M.B.B.S.,

(Ex Hon. Surgeon, Government Royapettah Hospital, Madras)
Medical Officer, T.V.S. & Sons Ltd. Hospital, Madura.

It is a well-known fact that much money is lavished on city and urban hospitals on the plea that they serve the population with expert medical and surgical aid. So far attention has been directed to the small minority of town dwellers only. Considerable amounts have been spent in city hospitals on adorning the floor and walls with fancy tiles. On the other hand, the majority of the population in India, which is rural has been served with only the subsidised rural dispensaries, the medical officers in charge being made to depend mostly on their private practice. This scheme has not touched even the fringe of the problem of rural medical relief. Considering the fact that 90% of the population in India, is rural, it is evident that the whole system of medical administration in India has got to be radically altered.

The position to-day in the city urban hospital is not encouraging. There is a large attendance; every department is crowded. The wards are overful with extra beds on the floor. And, it is a common sight to see many patients refused admission. Among these are some who have trudged all the way from remote villages for getting good medical aid. The little cash that they bring with them is expended on food and conveyance while they go about knocking at the door of every hospital for admission. The result is that some start begging to find the funds to get back home untreated and others fall an easy prey to the quacks. Be it remembered that a large number of villagers cannot get any medical aid whatever. It is heartening to find that Health Survey and Develop-

ment Committee has taken the country-side as a focal point of their recommendation, for as they say, "It is the tiller of the soil on whom the economic structure of the country eventually rests." They have produced a comprehensive long-term programme to be spread over a period of 40 years and a short-term programme covering the period of the first 10 years. The short-term programme is suggested by them to make the start with the present insufficiency of funds and of trained personnel while it is made clear that the proposals are intended to supplement and not supplant the existing health services. It will be ideal if the programme can be adopted in toto. It remains to be seen how far the provinces are able to carry out these proposals.

Let us go into the financial implications to make the start of the short-term programme as it is applicable to our province. The population is 48.56 millions according to the 1941 census. The total area is 125790 sq. miles, comprising of 233 taluks. Each taluk has an average area of 539 sq. miles, with an average population of 209,289. The Bhore Committee Report says:—

"We suggest that in view of the insufficiency of funds and of trained personnel each primary unit should cover during the first 10 years, a population of 40,000 that the primary health centre should have a dispensary with two beds for maternity and two for emergency cases, instead of a hospital and the secondary health centre should start with a 200 beds hospital to be raised, by the 10th year to 500 beds

We also suggest that the establishment of the district health centre may be postponed till after this period. The staffing and equipment of the health centres at the head-quarters of the primary and secondary units will be on a reduced scale. In order to expand the existing meagre hospital facilities in rural areas we also suggest that a 30 beds hospital should be established at the start to serve 4 primary units and that by the end of the first ten year their number shall be doubled so that one such hospital will serve 2 primary units."

The short-term programme to serve a population of 200,000 envisages the establishment of one secondary unit and 5 primary units in the first year 10 by the fifth year and 25 by the tenth year. The recurring expenditure on this organisation by salaries of the staff alone in the first year is Rs. 268,616, (Vide Bhore Committee Report, Vol. III).

For the whole province with the population of 48 millions 240 such organisations are required. The Madras Government will have to find in the first year itself Rs. 6,4467,840, which will have to be increased every year, as the number of units is increased. This does not include the expenditure on other medical institutions as colleges, public health laboratories, research laboratories etc. Besides, there are the capital and recurring expenditure on the hospitals, buildings, staff quarters, beds and other equipment coming into the organisation. These figures are based on Volume II of the Bhore Committee Report.

In this connection the mortality of the poor and uneducated ailing villager has to be taken into consideration. He cannot afford a conveyance and even if he can walk he does not think of going to the nearest hospital, which might be a few miles away. He uses indigenous remedies suggested by his well-meaning friends. But generally,

he resigns himself to fate. He thinks he is not an important member of the society. While in this predicament the quack finds a fruitful field for his exploitation. Under such circumstances unless the conveyance is provided and an assurance is given to him to the effect that good medical aid is easily available at hand, the villagers will not care to make a capital use of the chance afforded. So any scheme which does not provide for his conveyance, or the visit of a doctor cannot really serve him. It is not difficult for a popular ministry to solve the problem. There are two ways: to provide an animal drawn Ambulance Cart for each group of 8 villages close to each other and a mobile medical unit to visit groups of villages from a base hospital.

An Ambulance Cart will not cost more than Rs. 500—There is practically no depreciation on capital and no recurring expenditure such as maintenance, repairs, tyres etc. A pair of bullocks can always be hired locally to draw the Ambulance Cart to nearest hospital. The vehicle can easily tackle the bad country roads. It can be kept in the custody of the village officer or the Panchayat; who can arrange the conveyance for the patient. The Bhore Committee Report draws attention to the animal-drawn ambulance, but according to it one such vehicle (costing Rs. 2,000/-) along with two motor ambulances is to be kept at the primary unit to be sent out when a patient has to be brought to the treatment centre.

The essence of the plan suggested in this paper consists in affording all facilities for the rural patients to reach the hospital and for medical units to visit villages. Chronic cases which do not require frequent medical attendance can very well be treated in their homes. This incidentally will relieve the congestion in the hospital and medical officers can give better attention to the patients coming there.

A taluk in our presidency covers on an average 538.9 sq. miles with a population of 209,289 in 202 villages. These figures correspond very closely to the Bhore Committee's Secondary Unit, covering on an average 516 sq. miles with a population of 200,000 in 195 villages. As there is very little difference between the two sets of figures, a taluk, the present administrative unit will correspond to the area and population covered by the secondary unit. Generally a taluk has a hospital, but if one is not available in any taluk, it has to be created in a village chosen at the heart of that taluk. We shall call this institution the "Central" or "Base Hospital" and it will serve the villagers roughly within a radius of 13 miles (area 531 sq. miles). It shall be the base from which the mobile units operate. It shall have essential equipment for treating cases of surgery, medicine and midwifery. It is to have at least 50 beds with the minimum of necessary establishment as a few nurses (trained in midwifery) also, midwives, ward boys, thotties etc. The chief of this institution shall be a man who can do decent surgery. Many assistant surgeons trained in the surgical wards of any city hospital for 3 or 4 years will be suitable for this post. One lady doctor who has had good training in midwifery and gynaecology will be the chief of the women and children unit. Both these officers will have assistants (lady assistants for lady doctors.) The men assistant medical officers shall have short intensive training in anaesthesia, routine laboratory work, leprosy, venereology and if possible, in tuberculosis also. It will be good if one of the doctors know routine eye work in view of the fact that the mobile unit can do a lot to prevent blindness. It has to be remembered that the villager does not bestow sufficient care to his eyes. According to Lt. Col. Kirwan, the great Ophthalmologist, in at least 50% of all cases the blindness is preventable.

The mobile unit can do many surgical operations in the patient's own homes or at suitable places in the villages, as minor surgery forms the major part of surgical work. Chronic cases which require only periodic attention can be treated in their own places by the same unit which visits each group of villages twice a week. The help of the rural medical practitioners, when available, will be enlisted. Thus the work of the mobile unit will relieve the congestion in hospitals. The units will go out in different directions from the base hospitals, in the large military type of ambulance vehicles, which carry for each unit a small laboratory, drugs (as far as possible in tablet form) and surgical equipment besides staff. It is not possible for a unit to visit every village. So to facilitate its work about 8 villages close to each other will be grouped as a rural unit, so that a taluk will have 25 such rural units. Each rural unit will have a panchayat in one suitable village in the unit. This panchayat will supervise the maintenance of an ambulance cart for that group of villages (as also a midwife or 'Dai' for routine midwifery in trained that group of villages). One mobile unit will visit this particular representative village twice a week. By a fixed schedule announced beforehand, one mobile unit will go out on alternative days in a month and will visit two representative villages on each day of their itinerary. The patients from all the villages in those two units will meet the mobile unit at those two particular villages. So in 12 or 13 days in each month (leaving out Sundays) each rural unit will be benefited by the visit of the mobile unit twice a week, the total number of the rural units in a taluk being, as already pointed out, 25. The lady doctor and the midwife in the mobile unit will particularly do ante-natal work and advise cases, where difficulty is anticipated to go to the hospital.

of the midwife or the trained 'Dai' maintained by each rural unit. If funds are available a mobile X-Ray unit with an X-Ray technician can also form part of the team.

It will be noticed that this plan does not include work in preventive medicine, which according to the Bhore Committee must go hand in hand with curative medicine. If it is decided to incorporate public health work in this plan, two mobile public health units can be added to each taluk. Each public health unit will consist of a health officer and public health assistant. These men will make a public health survey of the village visited. They will carry on propaganda by lectures, demonstrations, cinema films and gramophone records. They will appeal to the educated men in the villages to learn the essentials of public health and to teach those who volunteer, to look after the sanitation of villages. The volunteers can also be taught first aid and dressing to help the villagers when a doctor is not available.

As nutrition is an important part of the public health programme the officers can take with them a mobile canteen with cooks and necessary equipment. They will see that food is cooked in the presence of the villagers with cheap and easily available articles of food and with the minimum of cooking to conserve their nutritive

value. This will serve as a demonstration of the proper way of making simple nutritious and palatable food especially in these difficult times of food famine. The food cooked thus will be useful for the mobile unit for which it has to be arranged in any case.

In this scheme the secondary unit is dropped. But the present District Headquarters Hospital will perform its function in the first ten years. The plan involves much less expenditure than the Bhore Committee's short term programme and at the same time is much more serviceable. The cost of the hospital buildings can be reduced considerably in the first few years, if the army type of temporary buildings are constructed. In elevated places, beds may be accommodated in well-built thatched sheds, while the most important parts of the hospital such as the operating room and the post operative wards may alone be constructed with brick and mortar. Similarly the staff quarters also may be constructed with combination of masonry and thatched roofs (See appendix I for working cost of the scheme).

If the necessary finance is not available, it is suggested that this scheme may be tried at least in one district as an experimental measure for purposes of comparison with any other scheme that may have been adumbrated by others.

APPENDIX I

Expenditure on Salaries of the Staff alone for each taluk. (Roughly a population of 200,000)

Stationary Unit of the Hospital.

						Rs.
1.	1	Senior M.O. and Superintendent.	Rs. 500/-	per mensem	...	500/-
2.	1	Senior Lady M.O.	Rs. 400/-	" "	...	400/-
3.	4	Midwives	at Rs. 50/-	each	" "	200/-
4.	2	Compounders	at Rs. 40/-	each	" "	80/-
5.	6	Ward attendants	at Rs. 30/-	each	" "	180/-
6.	1	Ambulance Driver	at Rs. 75/-	each	" "	75/-
7.	1	Clerk	at Rs. 75/-	each	" "	75/-
8.	1	Stenographer & Statistics Clerk	Rs. 75/-	each	" "	75/-
						1,586

10 A SCHEME FOR EFFECTIVE RURAL MEDICAL RELIEF [The Miscellany]

A. Medical.		Mobile Units			
1. 1 Junior M.O.	at Rs. 250/-	(General, Venereal and Tuberculosis)	250		
2. 1 Junior "		(Laboratory, Eye and Leprosy)	250		
3. 1 Lady M.O.			250		
4. 1 Midwife	at Rs. 50/-		50		
5. 1 Compounder	at Rs. 40/-		40		
6. 2 Ambulance Drivers	at Rs. 75/-		150		
7. 2 Servants	at Rs. 25/- each		50	1,040	
Another similar unit					1,040
B. Health and Hygiene.					
1. 1 Health Officer	at Rs. 300/-		300		
2. 1 Health Assistant	at Rs. 200/-		200		
3. 1 Servant	at Rs. 25/-		25	525	
Another similar unit					425
C. Canteen.					
1. 1 Ambulance Driver	at Rs. 75/-		75		
2. 1 Cook	at Rs. 30/-		30		
3. 1 Assistant Cook	at Rs. 20/-		20	125	
Another similar unit					125
Resident DAIS					
25 resident DAIS each Taluk	at Rs. 30/- per mensem		750	750	
Total				5,615	
The total expenditure for the whole province consisting of 233 Taluks per mensem					
5,615 x 233 x 12 Rs. 154					
or Rs. 1.54 crores.					

Note:— If midwives are employed instead of Dais at Rs. 50/- per month, the cost of the scheme would be increased by Rs. 13,08,000, per annum. See appendix II.

Cost of Bhoré Committee Scheme compared.

Bhoré Committee Scheme as applied to Madras Province	Rs. 6.45 crores
The Scheme suggested in this paper	Rs. 1.54 crores
In this comparison only the salaries of the Staff required for the scheme has been taken into consideration. The scheme suggested here is only for the first 10 years of the Health Programme and corresponds to the short term programme of Bhoré Committee.	

APPENDIX II

The staff of the mobile units will work in the hospital on days when they do not leave the headquarters. On the same days operations and investigations for the patients in the hospital will be undertaken so that the full compliment of the staff is available. The health units on those days will prepare surveys etc., or can go out to the nearest villages for propaganda. The further villages will be visited by them with the mobile medical units.

A higher pay is suggested for the medical officers so that undivided attention may be given to poorer patients. Private practice may be prohibited or allowed with limitations.

APPENDIX III

A NOTE ON THE MAINTENANCE OF MIDWIVES AND 'DAIS' IN RURAL UNITS

It is estimated that the number of child births each year in British-India is about 10 millions for a population of 300 millions. On an average 33 child births may take place in each village with a population of roughly 1000. (population in a taluk on an average is 209, 289 in 202 villages). In eight villages there will be 264 births a year and assuming that a midwife or (DAI) can easily attend on one child birth a day, it is evident that one midwife or DAI will be enough for each rural unit. For the whole presidency with 233 taluks, 5,825 are required. DAIS can be easily trained to do routine midwifery work for normal cases. The Bhoré Committee gives an account of a very successful experiment of training a large number of DAIS easily in a short time in Dera Ismail Khan (N. W. Province) Bhoré Committee Report Vol. II, page 400.

August 1948]

SOME CLINICAL ASPECTS OF ECTOPIC GESTATION

BY

Dr. Miss S. SUBBALAKSHMI, M.B.B.S., D.G.O.

Pregnancy and Labour are said to be physiological processes in the life of a married woman. Perhaps it was so in olden days but at present these are attended by such varied and serious complications that one wonders whether it can be considered as a normal physiological process. However even now there are several fortunate women who go through the course of pregnancy and labour without the slightest disturbance to their normal life.

Among the various complications of pregnancy one of the most serious ones is Ectopic Gestation. In the normal course of events a mature ovum is expelled from the ovary by rupture of the wall of the Graffian follicle and the ovum floats in the peritoneal cavity in the neighbourhood of the ovarian fimbria of the fallopian tube. There is a natural current of attraction for the ovum towards the abdominal ostium of the fallopian tube from where it is directed towards the uterine cavity because of the movements of the Cilia of the fallopian tube as well as peristaltic movements. Somewhere near the uterine end of the tube more commonly in the Isthmial portion, the ovum is said to meet the Spermatozoan and the fertilized ovum is moved along the rest of the tube into the uterine cavity where the fertilized ovum gets lodged in the bed of decidua which is already prepared for the reception of the fertilized ovum.

Ectopic gestation is the term applied to the condition where such a fertilized ovum gets itself lodged in any other region except the uterine cavity. The location can be anywhere from the ovary up the uterine ostium and the resulting pregnancy is termed according to the region where it lodges.

(1) When it develops in the ovary it is known as ovarian pregnancy.

(2) When it develops in the general peritoneal cavity it is known as Primary abdominal pregnancy.

(3) When it develops in the tube it is known as Tubal pregnancy and this is again divided according to the region of the tube involved:—

- Ampullar part.
- Isthmial part.
- Interstitial part.

(4) Sometimes the ovum gets access into a rudimentary part of the uterus and develops there outside the uterine cavity then it is known as a Cornual pregnancy.

The course of events varies according to the site of the developing ovum. The causation of the Ectopic gestation is any interference in the normal movement of the fertilized ovum.

(1) For an ovarian pregnancy to take place the fertilization should take place by the spermatozoan entering a mature graffian follicle before its rupture. This is very rare.

(2) Primary abdominal pregnancy occurs when the ovum is fertilized after it is let out of the graffian follicle and before it enters the fallopian tube. This is also very rare and when it occurs the fertilized ovum gets lodged in any of the abdominal organs as Intestines and even the Liver.

(3) Tubal pregnancy is the most common variety of the ectopic gestations and the cause for the same is any obstruction along the course of the tube. The obstruction should not be complete but must be such as to allow the upward passage of the active spermatozoan but prevent the downward

ward progress of the larger fertilized ovum. Such conditions are:—

(1) *Mild Salpingitis*: This leads to the destruction of the Cilia which are supposed to be necessary for the normal progress of the ovum from the abdominal to the uterine end of the tube. The movement of the Cilia is supposed to set up a current and help the movement of the ovum towards the uterus. Further this mild inflammation causes swelling of the mucous membrane of the tube and thus narrow the tubal canal.

(2) Adhesions between the tube and the surrounding tissues may distort the tubal canal and cause obstruction to the passage of the fertilized ovum.

(3) Tumours within the tube wall or from other structures near by may cause obstruction by pressure and narrowing of the tubal canal.

(4) Malformations of the tube as Spiral twists in the tube or diverticula.

(5) A rudimentary tube closed at the uterine end may be entered by an ovum fertilized by a spermatozoan coming through the opposite tube.

(6) A very long tube. Here the ovum develops into the trophoblastic stage before it completes the passage through the unusually long tube.

(7) Unusual decidual reaction in the tube is also advanced as a cause of tubal pregnancy.

As already mentioned before the fertilized ovum may lodge itself in any portion of the tube as the ampulla, media, Isthmic or interstitial, but the course is the same in all cases, the trophoblasts producing cytotoxicity of the cells of the tubal mucosa and the ovum then burrowing into the muscular wall of the tube in a way similar to that of pregnancy in the uterus. A full decidua cannot be formed as the tubal mucosa does not contain much interstitial cells. As the ovum grows it bulges the wall of the tube inwards

occluding its lumen. The villi erode their way into the blood vessels and between the muscular fibres. The mucous membrane of the uterus is capable of a strong decidual reaction and acts as a barrier between the advancing chorionic villi of the developing ovum and the muscular wall. Further the uterine muscle is adapted to marked hypertrophy and stretching. On the other hand in the tube there is little or no decidua and the advancing villi rapidly eat their way into the muscular fibres and into the blood vessels. These blood vessels are large and the muscle of the tube is not so capable of hypertrophy and stretching. Hence in the tube the ovum acts like a rapidly growing destructive neoplasm. Some hypertrophy of the tube occurs in all cases and in rare cases the tube grows until term without rupture. Usually the hypertrophy of the muscle of the tube is insufficient to accommodate the egg and the muscle fibres at the site of the placenta are separated and destroyed by the erosive action of the placenta and a weak spot results. Any slight trauma or a strain causes a rupture at this site and bleeding takes place. If the rupture is on the free borders of the tube the bleeding takes place into the general peritoneal cavity; a hæmatocele forming in the pelvis. When the rupture takes place between the layers of the broad ligament a hæmatoma develops there. Rupture of the tube is the usual termination of an isthmic and interstitial pregnancy and generally takes place in the second or third months. When the ovum is in the ampulla the gestation sac usually points in the direction of the abdominal ostium and a tubal abortion is the usual termination.

Clinical Course:—It is very rare for an ectopic gestation to be without symptoms from the beginning. Several women give information that from the time of the cessation of the period there has been a dull ache in the

lower abdomen. More often the history is that the patient missed a period and has the ordinary concomitant symptoms of early pregnancy; but soon complains of pains in the lower abdomen especially in the affected side, cramp like pains due to the tubal and uterine contractions. After a few weeks irregular bloody vaginal discharge appears which is usually mistaken for a sign of threatened abortion. External hæmorrhage usually indicates that the ovum has been disturbed from its site. On the occurrence of jarr, a strain or an examination, sometimes even without any notable event a sudden severe pain is felt on one side, the patient feels faint or dizzy and may vomit or have nausea. Symptoms of shock may appear and the shock may be due to the sudden destruction of the tube, irritation of the peritoneum by the extravasated blood, or by the great loss of blood. If this is not so severe as to cause loss of life, she gradually gets over it. The pains continue and sometimes, a uterine cast is expelled which gives the impression of having had a complete abortion.

If the first hæmorrhage is small, clotting occurs around the rupture and the blood is absorbed, the acute symptoms subside in a few days. Again because the clot is disturbed by movement of the women or the blood pressure is raised the hæmorrhage recommences in a few hours or days, and the patient may die of anaemia from repeated hæmorrhages, or a sudden severe hæmorrhage.

The symptoms of rupture of the sac are pain on the affected side, sometimes excruciating and sudden, soon spreading all over the lower abdomen. Nausea, sometimes vomiting, sometimes diarrhoea plus evidence of hæmorrhage and shock. The striking pallor, pearly conjunctiva, yawning and sighing, fast, small pulse and extreme weakness reveal the fact of blood loss. Internal examination when the blood is still

fluid may not reveal anything but if one moves the Cervix carefully one can feel the uterus moving in a fluid medium. When the blood has clotted and hæmatocele is forming a mass can be felt in the pouch of the Douglas. When the rupture has taken place into the broad ligament, a hæmatoma forming here, the pain is most intense because of the tearing asunder of the layers of the peritoneum. Internal examination will always disclose a firm mass on one side of the uterus. If the rupture or tubal abortion occurs more gradually the symptoms are proportionately less stormy and the true condition may not be discovered. The ovum usually dies when the rupture takes place. In some cases however if the placental site is not disturbed the ovum continues to grow. In such cases symptoms of peritoneal irritation such as pain, soreness, nausea, vomiting, diarrhoea or constipation, bladder disturbances, loss of strength etc., arise. The signs and symptoms of pregnancy continue, foetal movements are more pronounced and painful and the size of the abdominal tumor grows according to the period of pregnancy but may be asymmetrical. Sometimes it is median. At term a spurious labour sets in, the foetus dies and toxæmic symptoms usually set in, as a slight fever, rapid pulse, anorexia, coated tongue, loss of weight etc. The patient may die of sepsis, of peritonitis, of exhaustion from prolonged suppuration, or the products of conception be gradually expelled through a fistula into the bladder, the rectum, vagina, or abdominal wall. If injection of the sac does not take place, the foetus is transformed into a lithopedion and may be carried on in the abdomen for many years.

Diagnosis

1. *Before Rupture*:—It is very rare to get cases coming for examination before rupture. In almost all cases the patient gives a history of previous pelvic inflammation, puerperal or gonorrhoeal, and a long period of sterility

elapses before the aberrant conception. When a woman in the reproductive period after some irregularity of the menses such as going over her time by a few days or a scanty flow complains of Cramping pains in the lower abdomen, mostly unilateral with irregular uterine discharge, the suspicion of ectopic pregnancy is aroused. On internal examination, a unilateral pulsatile, very tender swelling is palpated. The uterus is often slightly enlarged. The tumour has to be differentiated from thickened tube, a small ovarian cyst which has undergone a twist etc. The tenderness on palpation is much more marked in the case of a tubal pregnancy than the other conditions. A thickened tube due to inflammation may be differentiated by means of a blood smear examination which may show an increase of the leucocytes.

2. *After Rupture*.—If the woman gives a history of having missed a period, and then suddenly an excruciating pelvic pain occurs with dizziness, faintness or collapse the diagnosis is almost certain, and is confirmed by finding extra uterine tumour, or sometimes the discharge of a uterine cast. When the development of the symptoms are not so alarming but gradual the condition will have to be differentiated from an ordinary abortion. In both we get symptoms of early pregnancy and later uterine discharge with pain in the lower abdomen.

1. In abortion the uterus will be enlarged corresponding to the period of amenorrhoea, whereas in an ectopic although the uterus is enlarged it will not be corresponding to the period of amenorrhoea except in the rare cases where an intra uterine pregnancy coexists with a tubal pregnancy.

2. In abortion the onset of abortive symptom is quiet, with gradually increasing and regular pains in the lower abdomen resembling labour. In ectopic the onset is stormy with irre-

gular and colicky pains sometimes few and excruciating localised on one side. One definite descriptive term given by the patients in these parts in the cases of ectopic is clearly diagnostic. They give the term as "Panju Keral" perhaps meaning the radiating nature of the pain. In every case where the patient described the pain as such the condition was certain to be ectopic gestation.

3. External hæmorrhage is profuse or moderate with clots in cases of abortion whereas in ectopic the hæmorrhage is usually slight and is dark. In a few cases that come to this hospital the hæmorrhage was rather profuse.

4. In the case of abortion the symptoms of hæmorrhage are proportionate to the visible blood loss whereas in the case of ectopic it is out of proportion to the visible blood loss.

5. In the case of abortion matter discharged in the vaginal discharge contains foetal parts whereas in the other nothing is seen or only a decidual cast with no villi.

In the case of a Pelvic Haematocoele.—When the blood is fluid it may not be felt as a separate mass. It will give a false impression as if the uterus is enlarged to such an extent, but the cervix is not so soft as in the case of a uterine pregnancy and if the cervix is carefully and slowly moved up and down it will give a feeling as if it is in a fluid medium. When the diagnosis is not clear a needle passed into the posterior pouch will clinch the diagnosis. When the blood has clotted a mass will be felt. With the history of an abortion usually given by the patient this condition, will have to be differentiated for a pelvic inflammatory mass. A blood smear examination or again a needle in the posterior pouch will give the diagnosis.

When the woman comes with an extra uterine pregnancy at or on nearly full term the condition is not easily

diagnosed at first. When they come with a history of having gone over time, suspicion is aroused. Many cases give a history of having had slight labour pains after which the foetal movements stopped. When we investigate the causes for the retention of the foetus beyond term we may get at the diagnosis.

When however the woman is seen when the foetus is still alive unless a very careful examination is made the condition may be overlooked. The points which arouse suspicion that it is not a normal pregnancy are:—

1. Abnormal presentations. These are much more common in extra uterine than in intra uterine pregnancies.

2. Foetal parts felt very superficially over the abdomen.

3. The whole foetus being present much higher in the abdomen than usual.

4. The foetal movements are felt to be very painful by the patient.

With the presence of these symptoms if the woman is questioned carefully, some abnormality in the course of the pregnancy will be forthcoming. Internal examination usually reveals the uterus to be small and pushed to one side by the abdominal tumour. When the developing ovum encroaches upon the uterine wall as in the case of interstitial pregnancy or pregnancy in a rudimentary form, the uterus may be much enlarged but a sound passed into the uterus will reveal the cavity to be empty.

Treatment

There is no expectant treatment for growing ectopic gestation. In the presence of threatening symptoms one should not waste time on a fine differential diagnosis. If the diagnosis is made before rupture of the sac or during a tubal abortion the indication is to remove the ovum by Laprotomy.

Under such circumstances the operation is very easy resembling an ordinary salphingectomy.

A tubal rupture and a tubal abortion is not possible to be differentiated before Laprotomy. When the symptoms are less alarming and gradual an abortion may be surmised rather than rupture. The best treatment is to do a Laprotomy on diagnosis and remove the ovum and blood clots from the peritoneum. Salphingectomy should also be done even if the ovum has escaped through the abdominal ostium. I have no hesitation in advocating this treatment since it is marvellous to see the patients improving after the operation although they look so hopeless before the operation. If the patient is under shock it is better to allow a few hours before the operation so that she will get over it unless the pulse rate shows that steady hæmorrhage is going in inside. In these cases nothing is to be gained by delay in the operation, where as there is some chance in doing the operation immediately.

When the case is met where the child is viable and is an abdominal pregnancy, the pregnancy is allowed to go to term and a Laprotomy is done before the calculated expected date so that the child may be saved. In such cases the operation advocated is a Laprotomy and removal of the child leaving the placenta undisturbed to be dealt with later so as to avoid excessive hæmorrhage. In cases where the foetus is long dead Laprotomy is done and the secondary sac removed from the surrounding tissues. This is a very difficult process since the sac is very often firmly adherent to the intestines and its removal may result in damage to the intestinal wall. In such cases it is advised to remove the sac as far as possible and leave the rest for gradual absorption than risk damage to the other viscera.

SUBSIDISED MEDICAL PRACTITIONERS

AND

BASIC HEALTH UNITS

The undersigned, along with a few subsidised practitioners from Malabar District met the Surgeon-General with the Government of Madras in his office at 12 noon on 4-9-48 and impressed on him the need for appointing the local subsidised practitioner as the medical officer when a basic health unit was started in their village or within a radius of 5 miles. They pointed out that when medical relief was scanty Government persuaded them to settle in villages by giving them subsidy. After years of struggle, the subsidised practitioners had built up their practice. If basic health units are started in or near their places, with new doctors and all modern facilities, the subsidised practitioner will find it hard to continue his practice. So the local existing subsidised practitioner must be given preference in appointment as the Basic doctor, if necessary after giving some health training.

The deputationists also urged on the Surgeon-General that when a Local Board dispensary is started in a place where a subsidised practitioner has been working this doctor must be given the choice to work as a Local Board employee, if necessary, granting age exemption.

The Surgeon-General gave a sympathetic hearing and promised to do his best in the matter.

Re-G. O. No. P. H. 2301 dated 17-7-1948. The Government clarified the position of 2nd class Health Officers by informing me that they also will be made Gazetted Officers.

P. A. S. RAGHAVAN,

Hon'y. Secretary, I.M.A.

South Indian Provincial Branch.

P.S.—The above is published for the information of subsidised practitioners, who frequently enquire about their future.

CHANGE OF ADDRESS

DR. T. SHANMUGHASUNDARAM, L.M.P., L.P.H., from Chingleput to Chittoor
DR. R. P. HARAN, L.M.P., from Krishnarayapuram to Trichinopoly
DR. K. GOVINDASAMY PILLAI, L.M.P., from Swamimalai
to Vaitheswarankoil

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

Management of Chemical Burns of the Eyes—E. E. N. T.—May '48—Improvement in the management of chemical burns of the eyes has resulted from investigations during the war, of certain specific antidotes and from the application of new information on corneal physiology to the prevention of secondary complications. On the basis of prognosis, chemical injury to the eye has been divided into three groups (Table 1): non-progressive, progressive and irritant. This does not imply that an acid burn cannot be destructive, but indicates that the ultimate prognosis can be estimated with some accuracy at the time of the injury and that unexpected secondary complications are unusual. On the other hand, exposure to alkali or vesicant war gases may produce relatively little damage initially, to be followed later by serious secondary complications. Many of these disastrous sequelae result from secondary reactions irrespective of the type of corrosive agent or mode of death of the cells. Therefore, except for specific antidotes used for decontamination, the following discussion will be applicable to all types of potentially serious chemical burns.

Decontamination.—One of the mutual characteristics of many types of progressive chemical burns is the great speed with which the agent penetrates through the cornea. Household strength ammonia (10%) enters the anterior chamber within 15-30 seconds after exposure, Lewisite within 1½ minutes, sodium or potassium hydroxide (lime) somewhat more slowly. Such chemicals produce an early loss of adhesiveness of the corneal epithelium to the stroma, the epithelium sloughs off and thus an important barrier to the penetration of the chemical is removed.

Irrigations.—In view of this rapid and deep penetration of toxic chemicals, efforts to remove residual toxic agent from the surface of eye must be instituted within a few minutes after exposure. Therefore copious irrigation with water or any bland fluid close at hand is much more effective than the use of a more ideal neutralizing solution after some delay. The lids should be everted and a careful search made for

any residual particles of corrosive agent which may be concealed within the conjunctival folds of the cul-de-sacs.

After a sufficient attempt has been made to remove any residual corrosive agent, it is unwise to continue frequent irrigations of the eye which tend to hamper regeneration of the corneal epithelium. Isotonic solutions should be used if possible (e.g. normal saline), because hypotonic solutions and water increase the damage of the corneal epithelium, and hypertonic solutions may increase the edema of the stroma if the cornea has been denuded of epithelium.

Neutralizing Solutions.—The use of specific neutralizing solutions is of some value especially after exposure to solid lime or lye. Small particles may remain hidden within the folds of the upper or lower cul-de-sacs in spite of thorough irrigations and careful search after eversion of the lids. Such residual alkali can be neutralized by the instillation of a weak acid buffer solution such as the following, an isotonic solution of pH 4.5 which is well tolerated by the eye.

Glacial Acetic Acid 2.9 cc. (0.05 Molar)

Sodium Acetate Tri-hydrate 6.8 gm. (0.05 Molar)

Distilled Water q. s. 1000.0 cc.

Because of blepharospasm and some burning sensation caused by the acetate buffer, it may be necessary to instil a local anesthetic such as pantocaine 1½%. An arbitrary routine which has proven effective consists of instillations of acetate buffer every 30 seconds for about 5 minutes, every 15 minutes for about 2 hours, and every hour or two for the next 24 hours. Acid burns can be treated by the instillation of 1.5% sodium bicarbonate solution, an isotonic solution well tolerated by the eye.

Arsenical burns, such as that by Lewisite, can be decontaminated specifically by a single instillation of 0.1 cc. (2 drops) of 5% BAL ("dimercaprol" or 2.3 dimercapto-propanol, CH₂SH:CHSH:CH₂OH) either in ethylene glycol solution or in ointment

form. This antidote, synthesized by the British during World War II, penetrates rapidly, and competes favourably for arsenic within the tissues, resulting in its withdrawal and detoxification. This substance has also been used systemically in the treatment of arsenical dermatitis. Because it combines readily with other heavy metals it has proven effective in bichloride of mercury and other poisoning by heavy metals. BAL is also effective in the treatment of burns of the eye with a certain nitrogen mustard (ClCH₂CH₂N-CH₂CH₂, "NH.") No specific and practical antidote has been found for mustard gas because it combines rapidly and irreversibly with the tissues.

Iritis—After mild exposure to a toxic chemical, reflex miosis and photophobia may develop. This can be relieved by the instillation of homatropine and wearing dark glasses. More intense exposure resulting in deeper penetration of the chemical and opacification of the corneal stroma can produce a serous or fibrinous exudation into the anterior chamber within a few minutes. During the next 24 hours, polymorphonuclear cells appear in such an exudation. Clinically, the pupil becomes miotic and the iris becomes edematous and congested, and later may become atrophic. Histologically, the iris shows a purulent infiltration at first followed by a small round cell infiltration, thrombosis of the vessels, and necrosis of the pigment epithelium. The ciliary processes may become edematous. With such severe burns, it is important to instil atropine or scopolamine soon after the injury and to continue its use sufficiently long to maintain proper dilation of the pupil.

Secondary Infection—During the first 24 hours after exposure to mustard gas, cultures of the conjunctival sac are ordinarily sterile. After this time, an increasingly abundant conjunctival flora are obtained and the resistance of the burned cornea to pathogenic organisms is diminished. Local applications of antibiotics reduce this bacterial flora, and some investigators believe that the corneal lesion is benefited by such treatment, although other experiments do not show any improvement in the final corneal opacity.

The choice of antibiotic and vehicle to prevent secondary infection must consider any deleterious effects they may have on the regenerative processes of the corneal epithelium. Like all local anesthetics, the sulfonamides and to a lesser extent ointment bases per se inhibit the regeneration of the epithelium. However, penicillin solutions do not retard regenerative processes. It is therefore probably worthwhile to start the instillation of penicillin solution (e.g. 1000-5000 units per cc.) every 4 hours, beginning 24 hours after any caustic burn which produces necrosis of the conjunctiva or corneal opacification.

Symblepharon—Necrosis of opposing surfaces of bulbar and palpebral conjunctiva by a toxic chemical often leads to the formation of stubborn adhesions. This is particularly true when the necrosis extends deep into the cul-de-sacs, such cases developing symblepharon in spite of all prophylactic measures. Such conservative measures include the liberal use of ointments frequent breaking of adhesions by a glass rod, or the insertion of a contact lens. However, the use of a contact glass may also impair an already embarrassed circulation. Early removal of the necrotized tissue with replacement by oral mucous membrane (Denning graft) or normal conjunctiva reduces the incidence of symblepharon. However, grafting operations might well be postponed to determine first whether conservative measures are effective, and, if not, operation can be performed after the adhesive process is complete.

Discussion of Other Procedures Recommended for Treatment—Mention should be made of several other therapeutic procedures recommended in the literature, usually designed to avert special secondary complications and ultimately produce a clearer cornea.

Paracentesis—Reports of a few cases in which this procedure has been used are enthusiastic. It is recommended immediately after exposure to remove any chemical which has penetrated into the anterior chamber. The paracentesis can be reopened once or twice daily for as long as a week, and the ultimate clarity of the cornea after these procedures has been considered to be exceptionally good.

Denning Graft—Removal of all burned conjunctiva within 4-8 hours after injury and replacement by oral mucous membrane, or conjunctiva have been recommended by many writers. It is difficult to evaluate these clinical results accurately, because of the inadequate description of the severity of the burns treated and lack of comparison with suitable control series treated conservatively. Experiments on carefully standardized burns in animal eyes are lacking. Its purposes have been stated to remove residual alkali in the burned conjunctiva, to remove a possible toxic hydrolytic product which secondarily damages the cornea, to prevent mechanical irritation and adhesions between the lids and globe, and to restore limbal circulation. The degree to which this procedure actually accomplishes these results is uncertain. If such a procedure is contemplated, cases should be selected in which the bulbar conjunctiva is not completely ischemic (the grafts do not take well), and the grafting should be performed within 8 hours after injury. Conjunctiva from the opposite normal eye or possibly from a cadaver, or a thin piece of oral mucous membrane are probably the most satisfactory materials. Recently, Sorsby et al have covered the burned conjunctiva in 58 eyes with specially treated parchment—like human amnion. They stated that such a procedure separates the burned conjunctiva from contact with the cornea which might become secondarily involved, and also acts as a splint for the regeneration of the conjunctiva. Such a procedure apparently has little beneficial effect on any corneal opacification present immediately after the injury. It is probable that burns involving only the conjunctiva or corneal epithelium would respond equally well to non-operative procedures.

Ammonium Compounds to Extract Calcium—Following lime burns, the use of various salts of ammonia (e.g. freshly made neutral ammonium tartrate 10% ammonium chloride 4%, ammonium lactate) and trisodium citrate 8% has been recommended to dissolve and extract calcium from the cornea. However it is doubtful if the calcium ion per se is toxic, or that the ammonium salts effectively extract the calcium.

Demudding of the Corneal Epithelium—

McLaughlin has recently recommended partial abrasion of the burned corneal epithelium by means of a cotton toothpick swab in order to prevent further penetration of the caustic material from the small gray flecks in the epithelium into the corneal stroma. He stated that attempts to neutralize any such alkali in the cornea epithelium were unsuccessful, but there is no reason why this cannot be done safely with a solution of proper pH. The corneal epithelium is the only barrier to ionized substances, and when damaged by caustics, will allow penetration by the neutralizing solution. McLaughlin's excellent results and infrequency of corneal opacification in a large series of cases might well be attributed to his excellent system of emergency irrigations immediately after the injury.

Beta Irradiation—Within a week or two after a severe corneal burn, blood vessels begin to grow into the area from the limbus. This is ordinarily accompanied by some clearing of the corneal cloudiness. However, the ultimate result of a vascularized cornea may be undesirable for the following reasons: (1) some residual opacity will be caused by the vessels themselves or by a secondary development of the so-called "lines of clearing" described by Spicer; (2) large trunk vessels or granulation tissue masses make later keratoplasty less successful; and (3) possibly some persistent irritability of the eye can be attributed to the vascular elements.

Vascularization of burned corneas can be prevented by the alert and judicious use of beta rays of radon applied over the scleral region of the limbus adjacent to the area of burned cornea. It is unwise to apply the irradiation directly over the already necrotized cornea which may further increase the destruction of corneal corpuscles.

Superficial Keratectomy—This procedure is especially suitable in those cases of old chemical burns with a dense superficial layer of vascularized scar tissue over the cornea. Surgical removal of the superficial opacity should be combined with beta irradiation of the limbus to prevent the revascularization of the denuded cornea. Ultimate visions of 10/200 to 20/200 can be obtained by this method.

Keratoplasty—Excepting those cases with relatively localized corneal scars from chemical injury, the visual prognosis after keratoplasty performed on severely burned corneas is relatively unsatisfactory. This may be partly due to the lack of sufficient clear cornea remaining, and the accompanying vascularization.

Summary—The emergency treatment of toxic chemical burns of the eye consists of immediate irrigation of the eye with copious amounts of water or any bland fluid, followed by the use of neutralizing solutions for several hours. A mydriatic should be instilled soon after the injury and continued as long as iritis persists. After 24 hours has elapsed instillations of penicillin solution should be started prophylactically. Local anesthetics and most of the sulfonamide compounds should be used sparingly. Experimentally, repeated paracentesis, a Denning-type of graft or the use of beta irradiation may be tried. In selected cases of old burns, superficial keratectomy or keratoplasty may be indicated.

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Folk-Lore of the Nose and Throat—

E. E. N. T.—April, 48—So widespread is the belief of the American public and some of its doctors that the use of sodium bicarbonate is a preventive in the treatment of the common cold that it has become a part of American folk-lore, fostered and kept alive by advertising copy-writers. Yet this is but one of a large number of beliefs and superstitions surrounding the prominent structure known to the laity, but not to medical texts, under such colourful and rich designations as beak, nob, shnozzle, proboscis, smeller, sneezer, trumpet, snout, snot-box, nozzle, snorter, and hump. This wealth of synonyms is undoubtedly due to some extent to the prominence which the nose occupies in the face, and such popular interest is further demonstrated by the variety of phrases and similes in which the nose is mentioned. Few people will fail to recognize the terms: "as plain as the nose on your face"; "to cut off your nose to spite your face"; "led by the nose"; "to turn up his nose"; "to follow your nose" and "to put your nose out of joint."

Among local deformities large noses have always been an attractive subject for satire and caricature. In modern times it is one of the featured claims to fame made for a prominent and amusing cinema star. Throughout the ages considerable importance has been placed on chronic alcoholism as being responsible for the production of a large nose, especially in the form of rosacea in which the maximum point of intensity appeared to be the nose. However, as long ago as 1714 one forgotten medico protested against so exclusive a view. "It is certain," he declared, "that it (rosacea) does not always owe its original to hard drinking, since it is sometimes observed to attack the most temperate and abstemious." Today, those who combat chronic alcoholism do not signally view with alarm the possession of a red nose.

One of the earliest beliefs connected with the nose is that it is the portal of entry of life or the soul. Comments the Bible (Genesis ii. 7 relating to Adam): "The Lord breathed into his nostrils the breath of life, and man became a living soul." On the other hand, the nostrils have been regarded as the path by which life leaves the body. In faroff Celebes, for instance, fish-hooks are sometimes fastened to a sick man's nose, so that if his soul should try to escape it may be hooked and held fast. The same practice has been employed by the natives of New Caledonia and by Eskimos. The expression used by some civilized folk "to have one's soul in the nose" shows how natural is the idea that the soul may escape by this path. In like manner, itching of the nose has been variously interpreted as the sign of a forthcoming present, of seeing a stranger, imminent corporal punishment—and vexation, if the itching is internal, and pleasant news, if it is external. Long ago in England it was believed that itching of the right nostril meant the arrival of a stranger—a woman if the right nostril itches and a man if the left nostril is affected.

A popular belief in a close relationship between the size of the nose and the sexual organs dates back to ancient time. Heligabalus, the homosexual Roman Emperor only admitted those who were *nasati* to be his accomplices, and Joanna, Queen

of Naples, only selected men with large noses as her friends. The folk-lore connected with sneezing is extremely abundant and also dates back to remote ages. In many countries it is still the custom to exclaim "God bless you" or its foreign equivalents, such as "A votre sante" or "Alla salute", when someone is heard to sneeze. Sneezing was particularly regarded as a favourable prognostic sign in severe illness. Other beliefs associated with this act are, that sneezing early on Saturday indicates that the sneezer will not be able to carry out the work he has undertaken and that if the sneeze is suppressed he will be led by his nose.

Nasal epistaxis denoted various happenings, if folk-lore is believed. Thus, its occurrence indicates that you are in love; one drop of blood from the nose commonly foretells death or a very serious illness, while three drops are still more ominous; three drops of blood from a lover's nose indicates the end of love or the death of a parent; if a man's nose bleeds one drop from the left nostril only it is a sign of good luck. The following methods are recommended by folk-lore in the case of epistaxis: "To prevent bleeding of the nose drink whey largely every morning and eat much raisin, or dissolve two simples of nitre in half a pint of water and take a teacup every hour." On the other hand, people to this day are still told that nose bleeding can be prevented by wearing a skein of scarlet silk thread with nine knots down the front.

According to Marcellus, it is helpful to utter some unintelligible jargon three times in the ear of the same side as the epistaxis. "If one bloede on the right side of the nose and presse hard the parties right little finger that bloede, if on the left then the little finger in like case, therewith bleeding will ceases. This is a common and proved remedy." Other methods suggested were: "Wash the temples, nose and neck with vinegar", "Snuff up vinegar and water", "Fomment the legs and arms with it"; and "Keep a little roll of white paper under the tongue."

Hydrotherapy in various forms is extensively mentioned in the folk-lore therapy of epistaxis, as demonstrated by the following methods: "Great quantities of

cold water thrown in the face at diverse times in a short space"; "Drink smiddy water boiled"; "Drop water on the neck"; "Apply to the neck behind and on each side a cloth dipped in cold water"; "Put the legs and arms in cold water"; In a violent case go into a pond or river"; and "Apply cold water or water and vinegar to diverse parts pouring it upon the arms, putting the feet therein, and applying it to the cods, as also the back."

Among the alleged modes of transferring the common cold are such unique procedures as sneezing into a person's shoes; wrapping up a red coin moistened with nasal mucus in a piece of paper and throwing it into the street, when the finder will get the cold; saying to the person in the street, "I give you my cold," and smearing a door handle with the mucus early in the day when the first to turn the handle will catch the cold. These folk-lore practices are reminiscent of current-day efforts at humour revolving about the common cold. Everyone knows that "the way to get rid of a cold is to give it to somebody else." (circa 1948 A.D.)

For generations Hungarian peasants have worn a piece of sealing wax around their necks as a preventive measure for colds, while in Bavaria inhalation of fresh water every morning is regarded as a means of protection against colds. Folk-lore also has it that inunction of the nose with butter, vaseline or tallow is a sovereign remedy.

A great variety of folk-lore remedies have been recommended through the ages for sore throat, such as the use of the dung of lambs before they have begun to graze, the ashes of burnt swallow mixed with hay, gargles consisting of sheep's milk, and the juices of a snail pierced with a needle. According to early medical writers, there was a wide-spread belief that he who eats willow catkins on Palm Sunday will be free from sore throat the rest of the year. A 14th century remedy for sore throat went as follows: "Take a crystal bead and ground it small on a marble stone and temper it with women's milk of a knave child and he shall speak." Other mineral remedies consist of wearing beads of various kinds around the neck. Still another supposes that a string of gold

beads hung around the neck will not only prevent but also cure quinsy and sore throats of any kind.

In like manner, other folk-lore remedies for sore throat involve rubbing the soles of the feet with garlic and lard; tying a black silk cord around the neck; drinking a glass of sea water in the morning; in-

halation of burnt ashes, abstention from meat; rest in a quiet place and ingestion of two spoonfuls of good butter boiled with one spoonful of honey; and cauterization of the frontal and temporal regions.

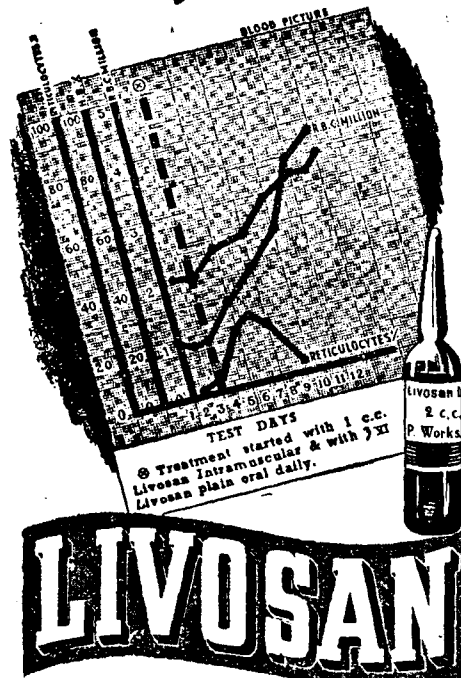
How many of our current nose and throat practices will be considered folk-lore in the year 2000 is anyone's guess.

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LIVOSAN (INJECTIBLE)

A total extract of liver in 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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ASSOCIATION NOTES

COIMBATORE BRANCH

President: Dr. N. K. Sampath
Vice-President: Dr. C. Nanjappa
Secretary: Dr. A. G. Leelakrishnan
Associate Secretary: Dr. S. Ganapathy
Treasurer: Dr. T. V. Sivanandam

The monthly clinical meeting of the Association was held at 6-30 P.M. on Saturday the 28th August 1948 in the association premises with Dr. N. K. Sampath the President in the chair. Fifty three members were present.

After tea, the President announced about the forthcoming visit to Coimbatore of the Hon'ble Dr. S. Gurubatham, Minister for Firka Development with the Government of Madras and one of the foundation members of our association and of the function arranged in his honour on the 2nd Sept., 1948.

He then introduced Dr. B. Ramamurthy, M.B., M.S., F.R.C.S. (Edin) of Madras and requested him to deliver his address on "Some Recent Advan-

ces in Surgery". The lecturer traced the advancement of Surgery from the days of Susruta the great Indian Surgeon of 2000 years ago, to the present time of Nuclear fission. He dealt with the growth in the various branches of Surgery like anæsthesia, Bacteriology and Surgical Sterilisation, about the latest technique of operations upon the chest, the heart and the great blood vessels. A discussion followed in which several members took part.

The President in his concluding remarks thanked the lecturer for his enthusiastic address. He also thanked Dr. M. K. Ramasubramaniyam the host for his Tea. The function terminated at 8-40 P.M.

RAMNAD BRANCH

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

The monthly meeting of the Association was held in Ramnad on 31-7-48. 25 members were present. The members assembled in the Head Quarters Hospital at 4-30 P.M. and were taken round the Hospital by Lt. Col. M. A. Parthasarathy, F.R.C.S., and were shown interesting cases that have been operated by him. After going round the Hospital for about an hour the members

adjourned to "LATHAMS" Bungalow where the members were entertained to Tea arranged magnificently by the staff of the Government Head Quarters Hospital who were the hosts for the occasion.

After tea the meeting commenced under the Presidency of Lt. Col. Parthasarathy. In his opening speech he emphasised the necessity of the mem-

bers attending the meetings in large numbers and also appealed to the rest of those that have not already joined to enlist themselves at once.

The minutes of the last meeting held at Government Hospital Rameswaram was read and adopted.

The following Resolutions were passed unanimously and the Secretary was authorised to communicate them to the proper quarters.

Resolutions:—

1. This Association resolves that the Assistant Surgeons, Grade I of the State Railways must be gazetted as in other Provincial Medical Services and must be treated on a par with the other Assistant Officers of other departments of the Railways such as Engineering, Traffic, Mechanical etc., as the Railway service also is a Government service.
2. This Association resolves that the unification of the cadres of Assistant Surgeons II Grade (Sub Assistant Surgeons) and Assistant Surgeons Grade I must be done as agreed to by the Madras Government in their G.O. dated 13-7-48 and their scales of pay also be raised from 100-8-140-10-170-EB-10-230 to 150-10-2-170-15-2-230 and remove the EB now interposed in the present scale of the Railway and the services of Grade II men also should be gazetted.
3. This Association resolves that the practice of direct recruitment of District Medical Officers to Railways must be given up forthwith and make open the avenue of promotions from among the senior subordinates and Assistant Officers to the District Posts

abolishing the present per cent quota system as in all other departments and in Provincial Governments.

4. This Association resolves to request the Government of India to reconsider their decision to permit the Licenciates to apply for short service Commission in the Indian Army.

Lt. Col. M. A. Parthasarathy lecture an interesting talk about the common ailments in and around the Anus and Rectum and its treatment illustrated with diagrams.

Dr. Anjaneyalu, M.B., B.S., T.D.D., read a short paper on "Incipient Phthisis".

Dr. Meenakshisundaram, M.B., B.S., Palace Physician, Ramnad proposed the vote of thanks.

The members were entertained to a very rich Dinner by the hosts.

The Secretary on behalf of the Association thanked the Lecturer of the evening and the staff of the Government Hospital for their hospitality and the function came to a close late in the night.

The monthly meeting of the Association was held at 4-30 P.M. on Saturday the 21st August, 1948 in the O. V. C. High School, Manamadura under the Presidency of Lt. Col. Parthasarathy, F.R.C.S., District Medical Officer, Ramnad. About 30 members were present.

The members were entertained to Tea by Dr. T. V. Appasamy, Medical Officer, Kandanoor.

After the minutes of the last meeting was read and adopted, the following names were proposed unanimously for the posts of the President and Vice-Presidents for the Indian Medical Association for the year 1948-49.

TRICHINOPOLY BRANCH

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

The monthly meeting of the above association was held on Saturday the 7th August 1948 at the Bishop Heber High School, Trichinopoly.

About 50 members were present. Dr. V. K. Renganathan was 'At Home' to the members.

In the absence of the President Dr. P. A. S. Raghavan was unanimously elected to the Chair.

Dr. D. Subramanyam M.S., F.R.C.S.,

Surgeon, Govt. General Hospital, Madras, gave a very useful and interesting lecture on 'Scrotal Swelling'. The subject was dealt with in a very analytical way.

The lecture was followed by an interesting discussion.

The meeting came to a close with a vote of thanks to the lecturer, the host and the authorities of the Bishop Heber High School.



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8. GURU K. DROPS for Whooping Cough
9. GURU CHILDREN TONIC

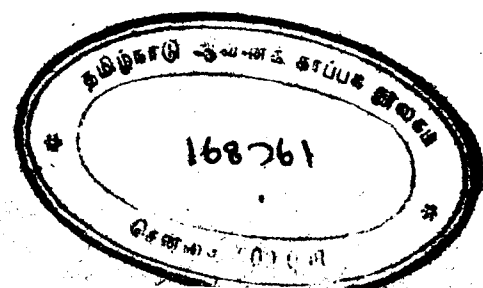
Dr. A. MATHURAM Sons, Trichinopoly, S. I.

WASHED UP

A post-suprapubic ode

Like a swaddled baby, I lie
In this bed that is seldom dry,
And I wonder each long day,
Why some doc can't find a way
To dispose of all this water,
Better than with a gauzy blotter
Surely doctors are not dumber
Than an ordinary plumber
Who can stop a leak that is spurting
Without damaging or hurting
Any part of the machinery
Like mine, pumping so serenely
Pumping on and percolating
Constantly without abating
Leaking, leaking day and night,
Making rest a sorry plight.
Such is life with the meek soul
With a superpubic hole
In his belly, where a gland
That had gotten out of hand
Was dug out and duly pickled
Leaving him soaked thru'-but tickled.

J. A. M. A.—March 20, '48.



3L
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N 31, 1152, 1-2

Flu' Fever



and Pains

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Indications: Headache, toothache, neuralgias and all kinds of pains, influenza and cold.

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.. .. .

Injection of Procaine into certain nerves of the neck, immediately after a stroke of apoplexy seems to relieve spasms in the cerebral vessels.

.. .. .

Dr. F. R. Drake would like to label a whole group of illness as iatrogenic. (*Iatras* means physician and *gen*-producing.) According to him the city specialists are the worst offenders in causing these, while the general practitioners, especially the country doctors, do a far better job because they know each patient, his background and his particular emotional problems.

.. .. .

What gives a cold and pays the doctor's bill?
A draft (draught).

.. .. .

"Doctor, I suffer a great deal with my eyes."
"But madam, wouldn't you suffer more without them?"

.. .. .

A young doctor returned to the village of his birth and called upon the old family physician.

"I suppose that you intend to specialise," remarked the elder.

"Oh, yes," replied the youth, "In the diseases of the nose, for the ears and throat are too complicated to be combined with the nose, for purposes of study and treatment."

Thereupon the family physician inquired: "Which nostril are you going to concentrate on?"

.. .. .

Here is a sad story of a man who took care to protect himself against early death, but missed one thing:--

He brushed his teeth twice a day. His doctor examined once a quarter. He took every precaution to protect himself when it rained. He had a thick hat when going out in sun. He slept for 8 hours a day, with windows open. He stuck to a diet of protein, carbohydrate and fat and vitamins A-Z, as prescribed by the doctor. He had his appendix removed, had his tonsils taken out, as also several worn-out glands. He never smoked drank or lost his temper. He did his daily dozen every day, besides the usual out-door walk. He was all set to live to be 100. But, he had forgotten about lorries on roads. He is survived by eighteen specialists, three laboratories, six gymnasiums and numerous manufacturers of health foods and antiseptics.

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Vit. B. complex)

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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,

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सर्वजनाः सुखिनो भवन्तु

THE MISCELLANY

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

MONTHLY JOURNAL OF THE SOUTH INDIAN BRANCH
OF INDIAN MEDICAL ASSOCIATION

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XV

SEPTEMBER 1948

No. 3



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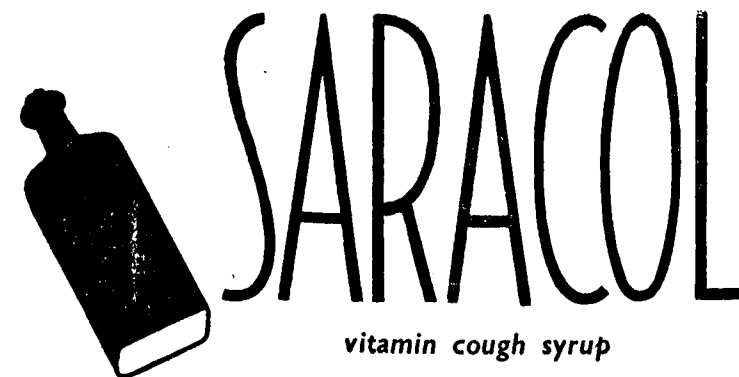


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Each fluid ounce of the preparation contains:

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Ephedrine Hydrochloride	..	1.0	..
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Ethylmorphine Hydrochloride	..	0.3	..
Sodium Benzoate	..	0.3	..
Calcium Levulinate	..	10.0	..
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CALCIUM LEVULINATE-SARA adds to the curative value of the preparation since it influences many respiratory diseases, relaxing bronchial spasm and decreasing the secretion of mucosa of the respiratory tract.

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THE THIRD SOUTH INDIAN PROVINCIAL MEDICAL CONFERENCE

NOTICE

Delegates will be lodged in "Soundarya Mahal" 214, Govindappa Naick Street and 215, S.K.P.D. Building, Govindappa Naick Street, G. T. Madras. The office of the Reception Committee will be opened at the premises of the Madras Medical College from the forenoon of 21st October '48. Delegates on registration at the office will get a badge, a Souvenir, a programme book and Invitations in connection with the functions connected with the Conference.

Delegates who stay in camp will be charged Rs. 10/- which includes delegates fee of Rs. 5/-. Other delegates will be charged Rs. 7/- which includes the cost of the Souvenir.

All members of the South Indian Provincial Branch of the Indian Medical Association are cordially invited to the Conference. They will be considered as delegates for all purposes except in case of voting at the open conference.

PROGRAMME

Friday, 22nd October '48

11 A.M.	Inauguration of the Conference by the Hon'ble Sri A. B. Shetty, Minister for Public Health. Welcome Address by Dr. K. C. Nambiar, F.R.C.S. Chairman, Reception Committee. Proposing Dr. P. A. S. Raghavan, Z.M.R.E. (Vienna) as President. Presidential Address. Election to Subjects Committee.
12-30 P.M.	Opening of the Exhibition by Dr. U. Krishna Rao, M.B.B.S., Worshipful Mayor of Madras.
2 P.M.	Opening of the Scientific Session by Col. S. L. Bhatia, M.D., B. Ch., F.R.C.S., Surgeon-General with the Govt. of Madras.
2-30 to 5 P.M.	Scientific Session "Symposium on Chest Pain."
5 to 6 P.M.	TEA
6 to 8 P.M.	Entertainments.
9 P.M.	Subjects Committee Meeting.

Saturday, 23rd October '48

9 A.M. to 11 A.M.	Visits to Ashok Vihar & Hospitals.
11 A.M. to 1 P.M.	Scientific Session.
2 P.M. to 4-30 P.M.	Scientific Session "Symposium on Disorders of Micturition."
4-30 P.M.	Photo
5 to 6 P.M.	TEA
6 to 8 P.M.	Provincial Council Meeting.
8 P.M.	DINNER by the Reception Committee.

Sunday, 24th October '48

9 A.M. to 11 A.M.	Visits to Pathology and Anatomy Museums.
11 A.M. to 1 P.M.	Scientific Session.
2 P.M. to 4 P.M.	Open Conference I. M. A.
4 P.M. to 6 P.M.	Licentiate's Conference.

Detailed Programme will be supplied to the delegates at the Conference time.

GOVERNMENT OF MADRAS EDUCATION AND PUBLIC HEALTH DEPARTMENT

MEMORANDUM No. 53857-D1/48-1 P. H. dated 20th September 1948

Sub: MADRAS MEDICAL SERVICE—Unification of the Cadres of Civil Assistant Surgeon—Class I and II—Questions relating to.
Ref.: G.O. No. 2301 Public Health, dated 7-7-48.

The Government have considered the requests made by the various Associations in regard to the Unification of the cadres of Civil Assistant Surgeons, Classes I and II and they proceed to pass the following orders:—

(1) The total period of 12 years' service required by Civil Assistant Surgeon, Class II for promotion as Civil Assistant Surgeon—Class I will include the temporary service of the candidates as Civil Assistant Surgeon Class II (Sub-Assistant Surgeon) provided that the temporary appointment is followed by regular appointment without break;

(2) The Government do not propose to move the Medical Council of India for recognising D.M. & S. as equivalent to a medical degree;

(3) The Government do not propose to reconsider their orders in G.O. 2301 Public Health, dated 7th July 1948 as regards the other requests made by the Associations.

II. The Secretary, D. M. & S. Association is informed that he may move the Surgeon-General in regard to the grant of medical certificates by Civil Assistant Surgeon—Class II.

III. The Honorary Secretary, Indian Medical Association (South Indian Provincial Branch) is informed that action is being taken separately in regard to the question of granting gazetted rank to 2nd Class Health Officers. The question of Provincialising Local Fund and Municipal medical institutions is separately under consideration.

IV. The Provincial Secretary, All India Medical Licentiates' Association is informed that it is not considered necessary to grant the interview asked for.



(FOR CIRCULATION AMONGST MEMBERS ONLY)

THE MISCELLANY

JOURNAL OF THE SOUTH INDIAN BRANCH

OF

THE INDIAN MEDICAL ASSOCIATION

VOL. XV]

SEPTEMBER 1948

[No. 3

PENICILLIN

ITS VALUE IN THE TREATMENT OF DISEASES

BY

Dr. K. NARAYANA MURTHI, M.D.,

Hon. Physician, Government General Hospital, Madras.

Infections of the blood stream and heart:

(a) Bactriemia not associated with subacute bacterial endocarditis:

There are practically no contraindications to the use of Penicillin in the treatment of bactriemia. Severely and critically ill patients, even those with cardiac or renal failure have been satisfactorily treated with the drug. Penicillin also can be used intensively in the treatment of Bactriemia in a parturient patient. Dose: 40,000-50,000 Oxford Units in 1 litre of Physiologic saline or 5 % glucose solution by the continuous intravenous drip method etc., 15,000-20,000 units in 3-4 c.c. of physiologic saline I.M. every 3 hours.

(b) Subacute Bacterial Endocarditis:

Plan of treatment:

Penicillin alone. For Children 150,000 units per day.

Adults: 200,000-300,000 units per day.

Administration of Penicillin should not be discontinued until the successive blood cultures have been tested and the patient is free of fever.

Penicillin with Sulphonamides: In some instances where the infecting

micro-organism is slightly resistant to, but is inhibited to some degree by penicillin, it may be desirable to combine penicillin with sulphanamides.

(c) Suppurative Peri-carditis:

Following aspiration 10,000 to 20,000 units should be instilled in 5 to 10 c.c. of saline.

II. Infections of the Central nervous system including the Eye.

(a) *Meningo coccal Meningitis:*

10,000-20,000 units in 10 c.c. of physiologic saline by intrathecal route. To be repeated every 24 hours until 2 negative cultures of C.S.F. have been obtained. In addition to this, 10,000 units of Penicillin in 2 c.c. of physiologic saline should be given every 3 hours.

(b) *Pneumo-coccal meningitis:*

This does not respond as dramatically to Penicillin therapy as Meningo-coccal meningitis. Sulphadiazine or Sulphamerazine should be continued with systemic and intrathecal administration of Penicillin.

(c) *Staphylococcal Meningitis:*

20,000 units of Penicillin in 10 c.c. of saline by the intrathecal route. Also 80,000-100,000 units daily by I.M. or

I.V. route. If the clinical response reaches a standstill under intrathecal administration combined with systemic therapy it may be feasible to administer 5000-10,000 units of Penicillin directly into the ventricle.

(d) *Streptococcal Meningitis:*

Same as (b) and (c).

III. Infections of the respiratory system:

(i) *Infections of the paranasal sinuses and middle ear:*

Acute and subacute infections respond to penicillin therapy. For chronic cases of long standing, combine Penicillin with necessary surgical drainage.

(ii) *Infections of the throat:*

Septic sore throat and acute tonsillitis under certain conditions wherein sulphanamides are not well tolerated, penicillin therapy may be followed by satisfactory results.

Pneumonia:

1. *Pneumococcal Pneumonia:*

The advantages of Penicillin include the almost complete freedom from serious toxic manifestations that attend its use as well as the fact that Penicillin usually is effective against sulphanamide fast strains of *Pneumococcus*:

2. *Streptococcal pneumonia;*
3. *Streptococcal pneumonia;*
4. *Atypical pneumonia:*

Penicillin has little effect on the course of the disease. Plan of treatment: For treatment of Pneumonia in general, 10,000 to 15,000 units every 3 hours in 2-3 c.c. of physiologic saline solution.

Bronchitis and Bronchiectasis:

Penicillin is introduced directly into the bronchial tree by allowing the patient to inhale the material after nebulisation. Obviously although penicillin may prove effective against

the bacterial phase of the diseases it will not bring about restoration of normal physiologic process in a bronchial tree which already is the site of marked pathologic changes owing to long standing infection.

Plan of treatment: By use of a standard glass nebuliser which is operated by compressed air, varying amounts of Penicillin in solution can be nebulised. The patient is made to inhale in 10 mts. 1 c.c. of nebulised saline solution containing 2,500-5,000 units. This is done 3 times an hour throughout the day. By this method patients can inhale without difficulty as much as 75,000-80,000 units in one day. For systemic treatment 80,000 units a day I.M.

Empyema and Lung abscess:

1. *Pneumococcal;*
2. *Streptococcal;*
3. *Staphylococcal.*

10,000-12,000 units I.M. every 3 hours. Rib resection would be necessary to remove masses of fibrin present in the cavities. Intra thoracic instillation of penicillin should be combined with systemic administration. In many instances intrapleural administration of Penicillin alone may be followed by satisfactory results. For intra-thoracic instillation following, thoracentesis 40,000-50,000 units dissolved in 40-50 c.c. of saline are instilled into and left in the pleural space. This is done once in 24-48 hours.

Lung abscess: Treatment: Systemic route: 10,000-15,000 units I.M. every 3 hours. The course of the disease should be followed by frequent radiographs and treatment continued until there is evidence of improvement or resolution of the process. If the abscess is situated near a bronchus instillation of Penicillin into the abscess cavity gives satisfactory results.

IV. Infections of the genito urinary system exclusive of Gonorrhoea.

1. *Perinephretic abscess and carbuncle of the kidney:* 5,000-10,000 units per day I.M. every 3 hours.

2. *Pyelonephritis, Pyelitis and Cystitis:* If severe renal damage is not present, adequate amount of Penicillin will reach the urine in these cases and frequently effective results can be obtained. In mixed infections of the urinary tract, Penicillin should be combined with sulphanamide. Recurrences are almost certain if the physician does not at the same time deal with the associated lesions and mechanical factors such as calculi in the renal pelvis, ureters, or bladder.

3. *Non-Gonorrhoeal prostatitis, Urethritis, Peri-urethral abscess: Epididymitis and Balanitis:* 20,000 units I.M. every 3 hours for 10 injections (total of 200,000 units) and treatment of associated lesion and mechanical factors as in (2).

4. *Pelvic cellulitis and purpurulent infection:*

Penicillin is one of the most effective agents yet available in the treatment of these infections. 100,000 units by the I.V. drip method or 150,000-200,000 units I.M.

5. *Spirochetal infections including syphilis:*

Syphilis: Early syphilis yield with sodium penicillin.

Total dose 3-6 mega units. 90 injections at the rate of 40,000 units third hourly followed by one unit course of Mapharsan and bismuth ten injections. Long term results are awaited.

V. 1. *Yaws:* Total dose of 1,500,000 units should be given over a period of twelve days.

2. *Relapsing fever:* There is every indication that Penicillin should prove of value in the treatment of this disease.

3. *Weils Diseases:* Administration of Penicillin results in the prompt

disappearance of the spirocheta from the patients urine.

VI. Miscellaneous infections:—

1. *Gas Gangrene prophylaxis:* Locally Ca-Salt of penicillin 500 units in 1 c.c. of saline. Systemic administration 100,000 units daily.

2. *Actinomyces:* Three courses of penicillin each of 10 to 14 days duration 100,000-200,000 units per day. Between the 1st and 2nd and the 2nd and 3rd courses there should be a rest period of 2-4 weeks.

3. *Virus infections:* Murine Typhus. Virus of Lymphogranuloma inguinale and psittacosis, 100,000 units per day for 7½ days.

4. *Rat Bite fever:* Superadded with streptobacillus moniliformis responds to penicillin; the dose being 5000 units I.M. every 3 hours for nine days. *Fever:* Caused by leptospira responds well to Penicillin. Dose: Infants or young children 5000 units in 1-2 c.c. of physiologic saline I.M. every 3 hours for 7-10 days. Adults 100,000 units I.M. every 3 hours for 7-10 days.

5. *Infections:* Due to Vincent's spirillum: (a) Locally, solution of Penicillin 1000 units in 1 c.c. (b) Systemic route, 80,000 units is the total daily dose. Treatment to be continued until clinical improvement occurs and negative smears have been obtained.

6. *Erysipeloid:* Results are encouraging.

7. *Anthrax:* 100,000 units per day until cured.

8. *Tetanus:* Responds to Penicillin. But the spasms do not come under control.

9. *Peritonitis* yields good results with Penicillin.

Agranulocytosis: For the treatment of agranulocytosis caused by thiouracil, injections of penicillin 20,000 units

every 3 hours give considerable improvement.

Sycosis barbae seems to respond favourably to Penicillin. The ointment may be used locally.

Surgery.

1. In the surgical treatment of war wounds and compound fractures systemic injections of Penicillin with local application of Penicillin with sulpha-thiazole powder provide almost a complete protection against sepsis. (Powder containing 5,000 units of calcium-penicillin with one gramme of Sulpha-thiazole is insufflated to form a thick cover over the wound.

2. In sinus thrombosis secondary to orbital, nasal and facial cellulitis, Penicillin has been used with success hitherto unknown. • 100,000 units I.V. per day at 30 drops per minute or I.M. 20,000 units every 3 hours serves equally well. Surgical interference may then be unnecessary.

Prophylactic uses. In the prophylaxis of wounds, Penicillin is effective, 15,000-

20,000 units every 3 hours I.M. for 24 hours may be necessary and this may have to be continued till the general and local conditions show that the danger of infection is past. Sulphonamides may be given with Penicillin.

As a prophylactic agent against puerperal sepsis 20,000-40,000 every 4 hours for 4-7 days may be given I.M. To prevent Ophthalmia neonatorum, 2,500 units per c.c. may be instilled into the eye of infants. For infants the dosage of Penicillin is estimated to be about 1000 units per body weight.

Mycobacterium, Tuberculosis, Pasturella pestis, V-cholera, E. coli. Proteus. Pyocyanea, Brucella, B. Typhosis, Friedlander's bacillus, Streptococcus faecalis, H. influenza, H. Pertussis are all insensitive to Penicillin.

Ultimately the physician must realise that Penicillin is not a panacea and that it will not cure or improve many types of cases and may even mask the pathological process e.g. in gonorrhoea and syphilis, and infection of the uterine tubes occur etc.

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ERRATA

In the August issue of the 'Miscellany' the following corrections should be incorporated in Dr. K. S. Krishnan's article 'Rural Medical Relief'.

Page 6 second line omit 'and urban'.

Page 6 first paragraph 9th line read 'adorning' for 'adoring'.

Page 6 second paragraph second line omit 'urban'.

Page 7 last paragraph read 'mentality' for 'mortality'.

Page 9 first line read as 'The former will also check the work of the midwife.....'

Page 10 line starting with "The total expenditure for the whole province etc." read 'year' for 'mensum' and omit Rs. 154 in the next line.

In Appendix II, 4th line read 'farther' for 'further'.

September 1948

EMPLOYEES' STATE INSURANCE ACT, 1948

BY

Capt. C. S. S. SARMA, L.M. & S.

The Government of India recently passed the Employees' State Insurance Act in April 1948. It deserves to be more widely known amongst the medical profession in this Province and abroad. Health Insurance has ever been a subject of great importance and various agencies have helped to make it one of absorbing interest of late. What with the World Wars I and II and the increased World Consciousness, that this is the "Century of the Common man", the labour in the field and the worker in the factory have come into their own. Publicists and Governments have come forward to study the Common-man's problems and meet him half-way and provide solutions for his Social Security and health and environmental hygiene, in a manner and on a scale hitherto unknown. This legislation has taken a long time to come and to Professor P. B. Adarkar, belongs the credit of having ploughed a lonely furrow and evolved a scheme, which has been perfected by other workers and which in its present form as the amended act is to be enacted in the various provinces and towards which surveys are being conducted by their respective Governments.

In Madras the Survey may be said to have commenced in August 1948 with two Civil Surgeons and a Ministerial Staff. The Survey is also proceeding simultaneously in other Provinces, or has been completed in others, e.g. Bombay, the Punjab, United Provinces, Bengal, Central Provinces and Berar. The object of the Survey is to locate the worker concentrations in groups and numbers round about a large or small scale factory, to site a suitable dispensary and/or a doctor to be in sole and complete charge of a fixed number of Industrial workers under the definition of the Factory Act. The objective is to provide for the Industrial worker, a dispensary domiciliary visit and a doctor within two miles of his habitat and/or place of work. This doctor will be a whole time medical officer, who will be debarred from private practice but compensated adequately for it and who will have the ease of some 2,000

workers and keep complete records and dossiers of the medical history of these with a view to keep his patients in physical trim for maximum production cum freedom from Industrial hazards and other environmental defects, whether in his place of work or at home. The doctor under the Scheme will belong to a service and the service will be under the control of the Insurance Corporation through and by means of the Provincial medical authorities. It will be administered by elected and nominated representatives at various levels, Central, Provincial and Regional and popular and technical interests will be amply represented. The aim of the Corporation is to administer in one consolidated act, the various benefits, now procured for the worker, under the Workman's Compensation Act, the Maternity Benefits Act, and the Employees' State Insurance Act, to introduce uniformity, where there is not much now in the size and quality of these benefits and to altogether raise the Medical Standards obtaining in Industrial Medical Relief Organisations to a particular level.

The Medical profession has a special opportunity to welcome this Act and it should be a pleasure and a privilege to all forward minds in the profession and faculty to promote it by spreading correct ideas and implement them by hearty co-operation, even at some sacrifice. It is a pioneering measure. No spectacular results are expected to follow in the beginning. It is worth study and support, as it is the only and the very first beginning of Social Security, an instalment of it, as it were to ensure the urban industrial worker in a power factory, to keep fit in body and mind and play his destined role in the industrial future of his country. Already the trumpet voice of India, has sounded, not incorrectly "Produce or Perish!"

For one thing, there is bound to be large scale employment of medical men and women, now unequally distributed in urban

centres and unwilling to move into the country. Industrial expansion is tending from City and urban surroundings to rural and with power lines spread over the country, this seems both healthy and encouraging. It gives the worker a Secondary occupation as well as healthy home and family contact and an immunity from the besetting sins and vices of City life. He will be more prone to adopt the higher standard of life under such auspices than elsewhere.

It provides an unprecedented opportunity for a new specialization, for the profession in Industrial Medicine and Surgery, especially Orthopaedic, and Reconstructive Surgery; as well as Rehabilitational and Occupational therapy, Prosthetic Surgery, etc. The War has demonstrated that the Surgery of mutilation is the Surgery of despair and all-out efforts should be made to conserve and repair damaged limbs and organs, to minimise damaged lives and fit them into their world once again. Industrial accidents have to be viewed from this new angle and from the spot where the mobile team will pick up the victim of a major industrial accident to complete recovery and rehabilitation under the single and undivided care of one Orthopaedic unit, would be the ideal here as in Exeter in England.

The Social Security the workers would derive from the Employees' State Insurance will be ample. At the beginning it will not be realised as just that contributions are both compulsory and graded or that the benefits are disproportionately small, and the sick enjoy the benefits at the expense of the well. But it will soon be found that nothing can be given for nothing and that the co-operative will in action in State Insurance, is the cheapest way to obtain lasting benefits. Once begun, improvements by increasing amenities can be effected in due course.

Above all there is the Social Service involved in providing medical care, and for a kind of clientele, hitherto not specially looked after with understanding and sympathy from the standpoint of the Industrial worker. Medical facilities provided by the management are in general the most primitive, with laudable exceptions which

are very few. The medical profession once it awakes to the need for the industrial worker, who has so much attention focused on him these days, will find a fine and fitting occasion to do him justice. What with preventive work to do, in Industrial and Environmental hygiene, Venereal Diseases, Tuberculosis, Eye, Skin and other disorders, the vista is unlimited for gainful occupation mixed with feelings of discharging at the same time a Social Service of a high order.

The profession can therefore help the inauguration of the Act in this Presidency by an intelligent outlook in the new era and helping in the collection and dissemination of accurate statistics. Such of the professional members who are already associated with Industrial establishments and have gathered experience of interest and value, may pool it with others and help to form correct conclusions by informal discussions. It is now an opportune time to invite discussion and form a Symposium of medical opinion on the subject of Employees' State Insurance. It is a note-worthy fact, that the compulsory Insurance administered under the Act, will apply to all workers in receipt of a salary of Rs. 400, no matter whether they are actual workers or administrative and secretarial staff. The Insurance Fund proposes to spend as much as Rs. 6 per head per annum and this is many times more than the amount provincial finances are capable of releasing by way of per capita medical expense. The resulting high Standard of Medical Relief will rebound ultimately to the benefit of doctor and patient and assure Social Security.

It is therefore requested that the profession will be induced to study the Employees' State Insurance Act 1948 and the amended and Consolidated Factories Act of the Central Legislature and give them both their deep and careful thought, implement its working by whole-hearted co-operation and sympathetic interpretation and share in the establishment of Industrial medical practice as a service, as opposed to a panel type of practice which has its limitations, as well as its other controversial aspects in this country for any wide application.

SCHOOL-HEALTH EDUCATION POLICY

BY

Major V. KRISHNA ROW, Late I.M.S.,
(Ex Medical Officer, Presidency College, Madras.)

The prosaic saying that the *child is an asset to the Nation* or the poetic expression—the *Child is the father of the Man*—have lost all its significance in the body-politic of our country to-day. The reason is not far to seek. No attention has been paid to the health of children, either by the publicists (the leaders being obsessed with politics) the Government, the teaching, or the medical professions. Therefore, it is a tragedy to see that the average health of children in the upper, middle or lower classes is not what it ought to be or one desires it to be. The average expectation of life of an Indian is lowest in the world 22.39 years. His physique is none too good, to stand the tests of peace and strains of war.

The teaching profession has taken great pains to impart the 3 Rs. but as a whole has been indifferent towards the health problems of their tender wards. It is the unsound system of education that is at fault. This has resulted in the cartoonist caricature of an *educated Indian*—as possessing all head and no body. The great servants of the present Indian renaissance have nothing but poor mortal existence. The principle—*Mens Sana in corpore Sano* has been absolutely ignored in the present system of education. This might have suited to our erstwhile rulers, but it should not hold water to-day, in a free India. The evil effects of education on the health of our boys and girls have been adversely commented upon from the days of Swami Vivekananda.

The Sadler Report and the Skeene Committee on Military training stressed the need of a health policy—to make every Indian fit—as early as 1919 and

1927. But still this day, this remains a wishful thinking.

The Central Advisory Board of Education and Health have failed to tackle this vital health problem. Even Mahatmaji's Wardha scheme of education has failed to implement this health reform. The Madras Health Act, 1939 (the first of its kind in India) has not done justice to the health welfare of our children. This Act did only place the society under the double surveillance of the police and the sanitary inspector. It was given to Dr. John Sargent to embody a health scheme in his now famous report on Indian education policy and programme. But, this will take 40 years to complete even half the picture, hoping the driving power is maintained I agree that a Nation cannot be made in a day. But first thing must come first, and health is a primary pucca sociopolitical reform. Without good health and perfect physical fitness how can we maintain and enjoy our Independence? Health is basic to all other skills.

The average health of children is anything but commendable. The average percentage of diseased among South Indian students is 53, while that among the English boys (below 16 years) is only 18. The reports of the various Municipalities reveal that the number of the diseased among school-pupils is increasing. The Madras Presidency College health report show that the percentage of the diseased with remediable defects is increasing. The same state of affairs is revealed by the Bombay University Health Report. The Indian Army Health reports indicate that the percentage of recruits rejected has been on the

increase from 1937 onwards. The average health in public life, as a bread-winner is anything but satisfactory. How many promising boys, the finest sportsmen of their days have become mere physical wrecks in later life is a melancholy note indeed. All these facts must make us think furiously.

Apart from the indirect effect of economic distress on the pupil, has he been otherwise healthy? Has his health needs been studied? Has his other physical defects been observed and remedied, either by the teacher, the parent, the doctor, or the State, till he had actually fallen ill? Apart from the Government, which has a primary duty towards the Nation's health, have the educationists and the doctors, who are in daily contact with the children and know their health needs, protested against this apathy, regarding the youths of the country, who are the *trustees of posterity*. And for this sad state of poor health, I must hold the country's leaders and the doctors responsible. Any medical inspector of schools or colleges must feel extreme regret about the steady deterioration of health among the prop of the country tomorrow.

Health has been defined as—

"something more than mere physical fitness, mere absence of disease. It is a dynamic and an active state of living. It is a state of mental, spiritual, and physical fitness, a harmonious adjustment of the individual to the social environment. Fitness means much more than physical strength, a well-developed body. It is also a condition created by the combined influences of wholesome food, good sleep, regular exercises, suitable rest and cleanliness (both inside and outside the body)"¹

It is the absence of this health, which

is causing more misery of body and mind than any other preventable disease.

The question for the health reformer is—how can this dynamic state of health be attained, at what stage of life can we most successfully tackle this problem, for the benefit of the Nation?

It has been pointed out by research-workers in England, that the *first 18 months of the baby* are the most precious of all the years of life; and its future health depends upon the care bestowed at this tender age. A League of Nations Enquiry has reported that it is the *period of adolescence* (the period of growth to maturity, formation of character and body-build), which is most predisposed to attack of diseases. It is during this scholastic career that the child's habits, health and physical fitnesses have to be ensured for the later struggle for existence, when he or she becomes a bread-winner or mother.

I have given the definition of health. Therefore, *healthful living* covers the period of hour to hour activity of the day. As such, one needs *health education*.

Health education is defined as—"the sum of all experiences which favourably influence habits, attitudes, and knowledge, relating to the individual, community, and racial health".² Or, in other words, public health education is that part of health education that takes place in the home and community. This is one of the weapons used by the public health profession, for the promotion of health and combating diseases. Hygienic living will contribute to the maintenance of a degree of vitality, that will contribute to the individual happiness and efficiency.

Let us take stock of health education activities in India. What are they?

¹ American Health Education.

² American Health Education.

There is a perfunctory school medical inspection scheme in many provinces, but without any *follow-up* programme (except perhaps in Bombay?) On account of Sadler's report in 1919, it was inaugurated with all pomp in Bengal, but it has subsequently ended in a smoke. The Punjab Government started a good rural medical inspection scheme, but this lacked all public support and enthusiasm. In Madras, there is a show of medical examination of pupils in schools and colleges. This scheme benefits neither the doctor, the pupil, the educational institution, the parents, nor the State. It is definitely an *eye-wash*, to dupe or lull the public into a false sense of security.

The physical training programmes are not suited to the individual child. The whole basis of programme is wrong. As the late Lord Baden-Powell aptly remarked—"it is only a veneer to cover up the defects in the Government, in not attending to the ante-natal clinics and child welfare problems".³ The present system of physical training needs a thorough overhauling.

As regards the nutrition of the child, it is most lamentable, to look at the economic conditions of the middle and lower classes. As regards the general public and its so-called leaders, there is nothing but loose thinking and tall talks, which serve no useful purpose. The medical profession is a *Rip Van Winkle*, who is yet to awake. There is no nutrition policy for India. All these must Go.

I have shown you that beyond tinkering with the health problem here and there, there is no uniform policy throughout India, to build a healthy and physically fit citizen. Isolated attempts by a few interested schoolmasters and doctors have not served the purpose of an uniform policy and programme, which is urgently needed in India to-day. This concerns all

men, in all walks of life and in all strata of society. This is a post-war problem—a primary one—where much planning is required, especially when we are an Independent Nation, when we are to have a Military Academy, and even a large standing Army.

Therefore, I appeal to you, the medical profession as well as to the teaching profession to wake up to the realities of the situation, of rearing a healthy citizen and not merely an *educated* one, well versed in the 3 Rs. I request you to do honour to the hallowed but much neglected principle—*Mens Sana in corpore Sano*.

The school health programme that could be carried out without much expense and trouble by the school-managements are—

1. To arrange for the hygienic condition of teaching. The Madras Education Rules lay down all the instructions, regarding building, seating of the pupils, sanitation, and overcrowding. But these Rules are more honoured in the breach than in their observance;

2. To train pupils to live hygienically while at school;

3. To provide for the correction of physical defects as far as possible by providing a school-doctor—*pucca* school medical inspection scheme with a definite *follow-up* policy. This scheme is the stitch in time that saves nine—the cheap ounce of mixture that spares the costly pound of cure;

4. To provide physical activities suited to the individual child's needs. The individual child must be made the basis of the entire physical education programme;

5. To direct school health programmes, so as to present the spread of communicable diseases. Make the child sanitation-minded, not only in

³ London Times: National Health Supplement Sept. 1937.

its own interest but that of the community as well;

The *Health policy* of all advanced countries is—"to improve the individual or the community life of the future; to insure a better second generation, and a still better third generation; and to promote a healthier and fitter Nation and Race".⁴

India has no such health policy. It is high time that the medical profession woke up to its responsibility of formulating a health policy, just like the American and British Medical Associations.

This health policy is to be augmented by a well defined health programme, which should include—

1. Facilities for mothers and infants, and,

2. Facilities for the conservation of children's health.

The *health motto* of all countries is—"to cure is the voice of the past, to prevent is the divine whisper of to-day."

The Board of Education, England has suggested as early as 1938 that with regard to the health education, which is to be imparted to the pupils, and through the pupils to the community that—

"the health and well-being of the child is the primary foundation of its education; to live well is good, but it is necessary first to live; and in order to live, we must obey the *laws of health*."

The laws of health are simple, based on the *five* fundamental necessities of a healthy life, viz., good and wholesome food, perfect cleanliness (both inside and outside the body), regular exercise, rest and sleep.

These laws must be taught to the child in its own vocabulary, so that the

⁴ Approved by both American and British Medical Associations.

child may be aided to take a regular, enthusiastic, and intelligent interest in a health programme, outlined for its benefit. The value of such instructions varies with the ability of the teacher and the amount of emphasis placed on health, by the school and the public health services.

Sex-Hygiene: It has been shown that the period of adolescence is the period when all are predisposed to attacks of diseases. The time of adolescence of the boy or girl presents its own problems, the most important of which is the *sex* one. As one aptly remarked—"at adolescence, the child leaves a sunk harbour for a sea of troubles. It has been debated as to who should impart the sex knowledge, the class teacher, the doctor or the parents? Sex education is tabooed in public by both the doctors and the teachers, even though they are ready to discuss this problem threadbare in private. Why should this be shrouded in secrecy?"

In the past, young persons were generally left to find out these matters for themselves: but now, it is becoming the universal opinion that some help, guidance, and preparation should be given. By whom? It is not always the parents, best fitted to give the instructions, for they have their own sex difficulties and they are shy too. Therefore, instruction must come from the teacher, better before adolescence, for a good number of children undoubtedly pass their childhood unaffected by sexual matters. The doctor becomes only a consultant in these affairs, when troubles crop up.

The small child's health practices are a good deal influenced by the teacher, for the teacher is an authority to children and do as the *teacher says*. The child differs from the adult in their physical, mental, and social characteristics. Therefore, the teacher's success in importing the health habits

and knowledge should vary according to the interests, needs, and the age of the child. In this connection, it may not be out of place to mention, that the cognisance of the parent in the home is also necessary, for without his co-operation, the child cannot control his health practices taught in the school.

A specific set of objectives for general education suggested by a Committee of the National Education Association of America is as follows:—

(1) Health; (2) Command of fundamental processes; (8) Worthy home membership; (4) Vocation; (5) Citizenship; (6) Worthy use of leisure hours; and (7) Ethical character.

Health is placed at the beginning of this list and health relationships are obvious in connection with some of the other specific objectives. We have thus left behind the concept, that the school's only responsibility is to teach facts and have arrived at the concept that the school's responsibility is to train for citizenship, with due consideration of the child's physical, mental, social and emotional welfare. The modern school health programme recognises significant contributions to health from many sources, including medical, nursing, and dental services, physical education, health instruction, specialised training in nutrition, and public health control of school sanitation and communicable diseases.

This is the modern approach to education, which should be taken note of, in the present period of Indian

renaissance. The results of all this health education will be the knowledge—

1. That health is dependent on what you do, and hence it is controllable;

2. That perfect health should be desired by all; and,

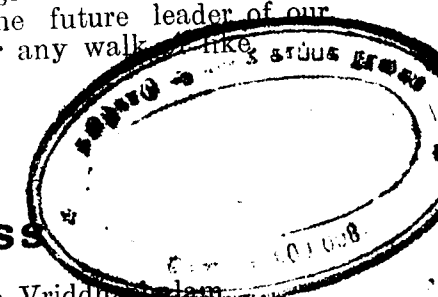
3. That the health habits established in early life will improve the efficiency of the health of the community; and also create a community life and citizenship.

Health transcends all politics, castes and creeds.

My fervent appeal to you, the medical profession is that you must seize this health problem, of rearing an A-I citizen and formulate a health education policy, from the bottom of society. The onward march of a Nation depends upon the feet of children. The reports of the All India Medical Conferences will reveal that they have till now bestowed very little attention to this constructive programme of regeneration. It is all a *laissez-faire* attitude. This attitude must change into a sense of robust optimism and hard work, for the health, happiness, and well-being of our children, the trustees of posterity. Without health, the happiness of the individual, his economic value to society, and the sweetness of life—all these will disappear. The adoption and working of a health education policy will make every child grow into a healthy citizen and the future leader of our country, fit for any walk of life.

CHANGE OF ADDRESS

Capt. T. N. DORAISWAMY from Villupuram to Vriddhachalam.
Dr. P. PALANIYANDI PILLAI from Jayankondam to Krishnagiri



RECENT ADVANCES IN MEDICINE

ANTI-AGE-SERUM

BY

A PUBLIC HEALTH BACTERIOLOGIST

Anti-Age-Serum:—Not since the discovery in 1941 of Penicillin has any new medical substance created such interest as the new serum A.C.S. (Antireticulocytotoxic serum) developed by Prof. Alexander A. Bogomolets of Soviet Russia after years of work with the aid of sixty assistants at the Kiev Institute of Experimental Biology and Pathology. The Professor's lifelong search to determine the causes that lead to the gradual loss by the human body of its resistance to disease and to check this loss is in the nature of a modern Odyssey. In his studies, Bogomolets concentrated on that vast net work of elastic tissue in the body and found that the connective-tissue cells, particularly those of the reticulo-endothelial system (present in the spleen and bone marrow) determined the organisms resistance to infection and to senile changes (such as arthritis, arterio-sclerosis, high blood pressure and possibly also cancer). If therefore (he argued) some means to stimulate the activity of the connective tissue system were found, two major problems would be solved at one stroke. The stimulated connective tissue would be enabled to discard the poisons generated continuously in the system, and the rejuvenated tissue would resume the special roles

which this tissue and the entire human body played when both were young. It would once again carry vital food to the cells, defend them against infection and most important, once again replace dead and dying cells with fresh living substance. On June 23, 1941 Bogomolets announced that his life-prolonging serum was at last perfected. It was made available to many hospitals and reports came in that it was a highly promising weapon in preventing the recurrence of cancer after surgical removal, in ameliorating the hardening of the arteries and high blood pressure and in affording great relief in rheumatic affections and also in mental and nervous disturbances. Bogomolets emphasizes that the serum is *not* a panacea nor even a specific, but by stimulating and regenerating the connective tissue cells, it restores to the body a considerable measure of the intrinsic resistance it had when it was young.

Many leading American Laboratories have taken up the new trail and are effecting improvements by developing better means of obtaining the source material for the serum and culturing living tissues in special suitable media in order to produce large quantities of the Anti-age serum.

T. N. S.

We regret to announce the sad demise of
Dr. N. VENKATASWAMY CHETTY of Madras

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

The "Safe Period" and Birth Control
—*The Practitioner*—July '48.

Query: In the issue of *The Practitioner* for March 1948, under the query "Temperature Charting in Relation to the Safe Period", there is no mention as to the safety of the period "after menstruation to the next ovulation." I shall be grateful if you could let me know what is the safe period. For those who do not like to use any contraceptive, how many days within this period can be safely recommended as infertile? How can this be ascertained correctly from the temperature chart?

Reply: During the normal menstrual cycle, the curve of basal body temperature is bibasic. The temperature is lower in the first half of the cycle than in the second. At the time of ovulation, a slight fall of temperature occurs, followed by a rise of two-fifths to three-fifths of a degree Fahrenheit. A fall of temperature occurs two to three days before the onset of the next menstrual period, but if conception has occurred the temperature does not fall, but continues to rise. In calculating the "safe" or infertile period during the cycle, certain facts have to be considered. It is important for an individual woman to keep graphs of basal body temperature for two to three cycles. On the pattern obtained, it should be possible to note the time of ovulation in each cycle. It must be remembered that any temporary constitutional disturbance, such as a sore throat, may modify the chart, and such occurrences should be noted. Having ascertained the time of ovulation, the ovum is probably capable of being fertilized for two days after. The "safe period" thus begins two to three days after ovulation, and conception should be impossible until the next ovulation. The "safe period", especially when checked by a basal temperature graph, is reasonably reliable as a method of birth control. Fallacies do arise, however. It is possible that in certain women, ovulation may take place more than once in a single menstrual cycle.

Analgesia in Labour—*The Practitioner*—July 1948.

Query: What analgesic drugs are recommended in (a) the first stage of labour, and (b) the second stage of labour in primiparae and multiparae?

Reply: (a) The amount of help needed from drugs by patients in labour varies considerably according to the type of the pains and the attitude of the patient towards them. Early in labour the old-fashioned chloral and bromide mixture, 30 grains (2 gm.) of each by mouth, is useful. When the first stage is well established morphine 1/6 or 1/4 of a grain (11 or 16 mgm.) by subcutaneous injection (there being 2 fingers dilation) is one of the best combination to give and will carry the patient well into the second stage. Nowadays pethidine is used extensively as an alternative and is effective. Dosage 100 mgm. intramuscularly. This can be repeated in an hour or two and then two or four-hourly; maximum dose 400 mgm. If the first stage is very prolonged paraldehyde, 14 to 21 c.cm. in olive oil or liquid paraffin, 4 to 6 ounces (114 to 170 c.cm.), administered by the rectum is good, as is also a combination of pethidine, 50 to 100 mgm. by injection, and seconal, 1-1/2 grains (0.1 gm.) orally. All these drugs are for use in the first stage and should not be used if the birth of the child is expected in an hour or two.

(b) In the second stage, analgesia is best obtained by some type of gas-oxygen or gas-air mixture (e.g. Moir's type of Minnitt's apparatus) or by an anaesthetic. Trilene by Freedman's inhaler is good but should not be used in patients with toxæmia or cardiac disease. This last, or a little chloroform or ether on a mask, will serve for delivery of the head. Great care is necessary of patients in prolonged labour, as their metabolism alters, and also the dangers of anaesthesia must be mentioned because of the tendency of patients in labour to have delayed emptying of the stomach, and the risk therefore of vomiting.

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The Treatment of Syphilis in Pregnancy—*The Practitioner*—July 1948.

Query: What is the correct method of treating syphilis in the pregnant woman?

Reply: Treatment of the pregnant woman who is suffering from syphilis is designed to protect the foetus from prenatal syphilis, and to cure the mother. The first aim is best attained by adequate dosage of penicillin. All the evidence points to the fact that this will protect the foetus in 98 percent. of the cases, irrespective of the stage of infection in the mother or the degree to which pregnancy is advanced. Dosage should be 2.4 to 4 million units of commercial sodium penicillin dissolved in sterile distilled water or normal saline, given intramuscularly in divided doses three-hourly day and night, during a period of seven to fifteen days. The following systems of treatment have proved satisfactory:—

(1) 40,000 units three-hourly for 60 doses—2,400,000 units in 7½ days.

(2) 40,000 units three-hourly for 85 doses—3,400,000 units in 10½ days.

If admission to hospital is impossible, equally good results can probably be obtained by giving calcium penicillin suspended in arachis oil and 4.8 per cent. bees-wax: 250,000 units twice daily for 8 days—4,000,000 units. For cure of the mother this treatment alone may be adequate, but if the patient has early syphilis it is customary in this country to supplement the penicillin by giving a full course of arsenic and bismuth in weekly injections for ten weeks as follows:

1st week: Neoarsphenamine, 0.45 gm. intravenously. Suspension of bismuth metaim, 0.3 gm. intramuscularly.

2nd to 10th week: Neoarsphenamine, 0.6 gm. intravenously. Suspension of bismuth metaim 0.3 gm. intramuscularly.

If the patient has late syphilis she must, of course, be fully investigated to ascertain the extent of the damage. In such event it may be considered advisable to avoid arsenic and rely upon penicillin alone, or the combination of penicillin and bismuth. Care in starting treatment is important to avoid exacerbation of the condition, as part of the so-called Jarisch-Herxheimer

reaction. Prolonged and careful observation and testing are necessary after treatment is finished. It is customary to advise further treatment with penicillin in subsequent pregnancies, even though the patient appears to be cured.

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Liquid Oxygen in Dermatology—*The Practitioner*—July 1948.—Having used liquid oxygen, which is 175 F. colder than solid carbon dioxide, in more than 1000 cases, R. L. Kile and A. L. Welsh (*Archives of Dermatology and Syphilology*, January 1948 57, 57) consider it to be an effective therapeutic agent. It is also inexpensive and is safe to use if reasonable care is exercised. Contact with fire must be avoided. It is applied by means of a wooden applicator covered with cotton-wool. The length of time for which it is applied to the skin depends upon the extent and depth of the lesion, varying from 15 seconds to 1½ minutes. The time required in any one case is soon learned from experience. There is always a certain amount of pain. In three to twenty-four hours a vesicle or bulla develops at the site of application. The conditions which have been treated successfully in this way include warts, haemangiomas, leucoplakia, seborrheic keratoses and senile keratoses. Among the advantages claimed for this form of treatment are: (a) it is easier to apply than solid carbon dioxide; (b) simplicity of use; (c) scarring is minimal and of the soft variety; (d) keloids are not produced in patients who develop keloids after other forms of trauma.

* * * * *

A New Remedy for Headache—*The Practitioner*—July 1948.—A report on the clinical observation on the use of E. C. 110 (ergotamine tartrate 1 part; caffeine 100 parts—Sandoz) is given by B. T. Horton, R. Ryan and J. L. Reynolds (*Proceedings of the Staff meetings of the Mayo Clinic*, March 3, 1948, 23, 105). The report concerns fifty-five patients who attended the clinic for headache. The cases included migraine (25), histaminic cephalgia (14), tension headache (11), arteriosclerotic headache (2), and pain in the face (3). The average dose was two tablets (each containing 1 mgm. ergotamine tartrate, and 100 mgm. caffeine) at the onset of headache.

Excellent results (i.e. complete relief in from 20 min. to 4 hr.) were obtained in 16 of the cases of migraine, good results in 6, and poor in 3. In the histaminic cephalgia group, excellent results in 10, good in 3, and poor in 1. In the arteriosclerotic group, good 1, and poor 1. The results were poor in all three cases of a typical pain of the face. Toxic symptoms occurred in only three cases in which two to four tablets were administered; these symptoms consisted of slight giddiness, nausea and abdominal distress. In one case, however, in which a man took, six tablets daily for twenty days, severe gastroenteritis occurred, with muscular cramps and urinary retention.

* * * * *

Penicillin in the Treatment of Neurosyphilis—*The Practitioner*, July 1948.—Twenty-four cases of neurosyphilis, including dementia paralytica (8) tabes (5) optic atrophy (2), and meningo-vascular syphilis (9) have been treated by intramuscular injections of penicillin by J. Purdon Martin (*British Medical Journal* May 15, 1948, i 922). After the first day of treatment, on which the dosage of penicillin was small, 60,000 units were given three-hourly until a total of 5 million units was reached. The dosages on the first day was 15,000 units t.d.s., or 10,000 units hourly, orders being given that administration should stop if the patient complained or seemed upset. No untoward reactions occurred, however. In the first group (dementia paralytica) all the patients showed clinical improvement, and all were working after observation of six to twelve months; in most instances the cerebrospinal fluid became negative in about a year, thus indicating arrest of the disease. In group two (tabes) all patients showed subjective improvement, with diminution of lightning pains. In group three (optic atrophy) one patient was blind in the right eye and had diminishing vision in the left. After treatment vision in the left eye, which was at first 6/12, recovered to a little better than 6/6, and there was slight recovery of sight in the right eye. In the second case deterioration of vision was arrested after two courses of penicillin therapy. In group four (meningo-vascular syphilis) there was marked improvement in five cases, including three with cerebral

syphilis; moderate improvement in three; in one (generalized vascular disease with high blood pressure) little improvement could be expected. In conclusion, the author states: "Penicillin alone is sufficient in most cases of neurosyphilis", and "if (with the possible exception of acute cases of G. P. I.) the patient can be kept under observation after treatment and penicillin repeated if necessary, malaria will seldom be called for, and the risk of it will seldom be justified."

* * * * *

Night Cramps of the Extremities—*The Practitioner*—July 1948.—Night cramps of the extremities appear to be due to some end-product of metabolism, as in diabetes, or to poor elimination of normal end-products of muscle metabolism, as in venous stasis due to varicose veins, pregnancy, or following deep venous occlusion. Increased muscular activity favours the development of night cramps in the rest following such activity. These facts are pointed out by H. K. Moss and L. G. Herrmann (*American Heart Journal*, March 1948, 35,403) who have observed the results of quinine sulphate therapy in twenty patients. Quinine sulphate, 3 grains (0.2 gm.), a placebo, and prostigmine bromide, 7.5 to 15.0 mgm. were prepared in identical capsules, the patients being started either with quinine sulphate or the placebo; if the former, the placebo was substituted as soon as relief from night cramps was noted. The initial dosage of quinine sulphate was 3 grains (0.2 gm.) after each meal. Subsequently 3 grains (0.2 gm.) of quinine sulphate were given after supper and at bedtime. Relief was usually obtained on the first or second night, often complete although in some cases mild or less frequent cramps occurred for some days. In many cases repeated alternations with a placebo were possible; eventually relief of muscle cramps persisted without medication. No alteration in the frequency and intensity of night cramps was observed in those patients who received prostigmine bromide before the quinine therapy, and in only two patients did prostigmine induce muscle cramps after relief by quinine. Beneficial effects of prostigmine, however, were (1) peripheral vasodilation in arteriosclerotic patients; (2) one patient noted marked improvement

in intermittent claudication; (3) increased motility in arthritic joints. Subsequently, prostigmine was used with benefit in a group of patients suffering from osteo-arthritis. In conclusion, the authors state that "prostigmine, the supposed pharmacologic antagonist of quinine, failed to increase the intensity or frequency of night cramps when administered in doses sufficient to produce the vasodilating effect of the drug."

* * * * *

Benzedrine in Enuresis—The Practitioner—July 1948.—Enuresis is attributed to disturbance during sleep of the centres controlling the innervation of the bladder. In the normal bladder there are two antagonistic groups of nerves; one stimulates contraction of the muscle of the body and fundus, and increases the tone of the detrusor fibres; the other decreases the tone of the muscle fibres of the trigone and of the neck of the bladder. These normally act synergistically. In enuresis the action of the first group is stronger, and the result is involuntary micturition. When the tone of the detrusor fibres is increased, A. A. Puntel (*Revista de Medicina Y Ciencias Afines*, November-December 1947, 9, 720-21) finds small doses of benzedrine effective, beginning with 5 to 10 mgm. by mouth. A case is reported of an unmarried girl of nineteen, who had suffered from enuresis since infancy. Striking improvement was noted after the first dose, and there was complete cure after two months of treatment.

* * * * *

The Newer Analgesics—Practitioner—July 1948.—Pain is the most common symptom for which a patient seeks medical advice and the problem of its relief has exercised the mind of man since he first became capable of rational thought. Writing in the "Practitioner July 1948" E. J. Wayne, under the above heading, describes some of the newer analgesics and compares them with the older ones.

Pure morphine was isolated from opium by Serturner in 1816, and it is a remarkable fact that, in spite of intensive research for a satisfactory substitute, it remains to this day the most widely used analgesic drug. The outstanding property of the

morphine series of drugs is their capacity to relieve really severe pain. In addition they tend to produce euphoria and drowsiness which makes them valuable in patients suffering from haemorrhage. But the chief drawback of the opium group is their tendency to produce addiction and their liability to produce constipation and their depressant effect on the respiratory centre.

The defects of the so-called "aromatic group" of analgesics, which includes aspirin, phenacetin, amidopyrine, and phenazone are quite different. None of these will relieve really severe pain. All are antipyretics and may cause difficulty in interpreting the temperature charts. Aspirin, through comparatively safe, can cause haematemeses, phenacetin may cause methaemoglobinuria, amidopyrine may cause agranulocytosis and phenazone drug rashes.

Coming to the recently developed synthetic analgesics, the main drugs considered are Bromo-aspirin, Pethidine and Physeptone. Bromo-aspirin: Some authors have reported on the absence of toxic effects with this compound. It is said to be more potent and longer lasting in its effects than aspirin and to have double, the analgesic effect of acetanilide. A dose of 0.6 (9 grains) is recommended. Pethidine: (Dolantin, demerol, isonipercaine, merperidine). Its effects on the pupils, heart and bronchi resemble those of atropine but it also has a papaverine type of action on the gut and blood vessels. It possesses a slightly local anaesthetic action. Like morphine it has an analgesic action due to its effect on the C. N. S. The relief of pain is not so complete as with morphine but is greater than that produced by codeine or aspirin. Drowsiness occurs after full doses. The cough, respiratory and vomiting centres are little affected.

In general, visceral pain responds more completely than pain arising from skeletal and nervous structures. Its action is short and lacks cumulative effects. Pethidine is a valuable substitute for morphine in the relief of pain, the intensity of its effect lying between that of morphine and the aromatic analgesics. It is specially useful in obstetric practice. A single injection of 100 mgm. was adequate for the majority

of labours. It produced no tendency to P. P. H. and foetal anoxia was rare.

The toxic effects are few but may occur with doses of 100 mg. and over. Most common is dizziness but sweating and nausea may occur. In prolonged over dosage atropine like effects predominate. There is evidence that Pethidine should not be used in patients with intracranial lesions in whom respiratory embarrassment readily occurs. The single greatest drawback to the wider use of Pethidine, however, is its tendency to produce addiction. Pethidine is a very useful analgesic in spasm of smooth muscle giving rise to pain e.g. biliary and intestinal colic. In dysmenorrhoea and asthma caution should be observed. Although a dose of 25 mgm. will often give an effect the usual effective dose as 100 mgm. by mouth or I. M. injection.

Physeptone: (Dolophine, amidone, etc.) The toxic effects are in order of frequency light-headedness or dizziness, nausea, dryness of the mouth, diaphoresis and mental depression. Addiction appears to be less likely than with Pethidine.

The uses of this drug are mainly in conditions in which relief of pain is desirable without narcosis and without the nausea which morphine so often causes. In pain due to spasm of smooth muscle it is less effective than pethidine but is probably of more value in pain arising from nerves, bones or joints. The dose which is certainly effective in majority of patients is 10 mgm. but initial doses of 2.5 to 5.0 mgm. should always be tried. The drug is effective orally but can be given I. M. or I. venous. T. V. S.

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Infection After Cataract Surgery—Dr. K. N. Shukla, Eye Hospital, Silapur—Indian Journal of Ophthalmology—Apr.—June '48.

It is fortunate that sepsis is not a very common complication after any form of cataract surgery, because once it sets in the eye is inevitably lost, due to panophthalmitis unless it has been detected at a very early stage. When it does occur one will on opening the eye on the third post-operative day, as is the routine with most surgeons, find it in such an advanced stage that no treatment will be of any

avail and despite all efforts it will not be possible to save the eye. The seriousness of the situation coupled with the helplessness of the surgeon at this stage has made it customary for him to concentrate all his energy on prophylaxis. In spite of a clean conjunctival sac infection does occur though at a very much reduced rate. This adds all the more to his difficulties because he cannot consider any prophylactic measure proof against infection.

This infection is of two kinds—early infection usually occurring within 48 hours and late infection occurring after 48 hours. Infection occurring after the 7th post-operative day has been considered by some to be of endogenous origin. The first variety will be detected on the day of the first dressing on the third post-operative day. The second type occurs any time after 48 hours and before labelling an infection as a late infection one must be sure of the absence of any signs of infection on the third post-operative day.

Early Infection—It develops within 48 hours and reaches in most cases a very advanced stage on the 3rd day. It is more than likely that the process starts even earlier than 24 hours. It passes through 4 stages which can be easily recognised. The difficulty lies only in recognising the first stage and it is only at this stage that a proper and energetic treatment can be of some avail. It becomes therefore imperative that in case of least doubt it must be treated as a case of infection and all possible means must be employed to combat it.

First stage—Infection begins at some point in the section and spreads both ways along the corneal margin. The transparency is lost and the colour becomes yellowish due to oedema and infiltration. The corneal and scleral margins remain in contact with each other. The cornea may lose some of its normal lustre and the iris may appear somewhat dull. Pupil is clear the colour depending on the type of the operation performed. Condition of the lids and conjunctiva varies in different cases. Oedema of the lids and conjunctival chemosis may not be present at this stage. While the absence of these signs does not always exclude infection

the presence of one or more of these should always make one alert to the possibility of infection and it will demand immediate attention unless it has been definitely ruled out.

Second stage—More corneal tissue becomes affected. The infiltration spreads towards the centre of the cornea and also in a circular form within the corneal margin ultimately forming a complete circle. At this stage a little corneal tissue dull and hazy but not yet completely opaque is present between the limbus and the ring of infiltration. The portion within the ring is also dull and hazy. Pupil may with difficulty be distinguished in some cases. But in most cases it is not visible. The sectioned cornea which is infiltrated and oedematous straightens out and loses its contact with the scleral edge. The wound consequently gapes. This gaping appears to follow and not precede infection. Any tendency towards gaping should be evident at the time of the operation. There is no reason why the cornea should become raised later if the corneal margin was in apposition to the scleral edge at the time of the operation.

The presence or absence of the anterior chamber will decide the further course of events. A well formed anterior chamber will cause the iris to float up and fill the gap between the corneal and scleral edges of the wound, and thereby minimise to some extent the chances of the spread of infection to the chambers of the eye. This protection will be lacking if infection occurs before the restoration of the anterior chamber. Exudate may cover the prolapsed iris or in its absence spread into the wound. There will be noticeable swelling of the lids. Conjunctival chemosis will also be present in most cases.

Third stage—The whole of the cornea becomes white, yellow or yellowish-white. Conjunctiva is very much chemosed and lids are very much swollen. It may not be possible to open the eye. Pain which may also have been complained of in the first stages becomes very acute.

Fourth stage—Cornea sloughs, vitreous becomes infected and the condition ends in panophthalmitis.

Diagnosis—Infection must be detected at a very early stage because only then can the eye be saved. Diagnosis must be made in the first stage. The remaining three stages will be too obvious. Pain is an important symptom and if complained of should make one suspicious, but it is not a constant symptom at least at such an early stage. Swelling of the lids appears much later. In the presence of discharge cornea must be very carefully examined. The only sure way of detecting it at such an early stage is to open the eye and examine the section on the second and third day after operation. It is to be noted that this procedure is not devoid of risk. The patients should be told to open the eye slowly and look down towards his or her feet. If it cannot be done without strain the effort should be given up and one should be content with the examination of the lower part of the cornea and the iris and the condition of the pupil if it is possible to see it. If the section can be seen the case should present no difficulty. The condition may at times be confused with the arcus senilis. In case of doubt it should be treated as a frank case of infection.

Treatment—In spite of his best efforts one does not ensure prophylaxis against any one or all of the three possible sources of infection. Systemic, local and exogenous, but a good prophylaxis and a vigilant after-care will very much minimise the chances of infection and go a long way to save at least some if not most of the eyes that would otherwise be lost.

Conjunctival sac should be clean. For this testbandage results are quite dependable. Patency of the lachrymal passages should be tested by instillation and syringing if necessary. In the absence of patency regurgitation from the sac will call for its extirpation. Cauterisation of the puncta should be enough otherwise. Penicillin should be applied locally either as drops or as ointment for a few days before operation. It should also be administered parenterally—starting a few hours before operation and continuing it till the first dressing is done. Injections of Sulphadiazine or Sulphathiazole are also recommended at six or eight hourly intervals beginning from the time of the operation

and continuing it till the time of the first dressing which should be done after 24 hours. Intracapsular extraction and a conjunctival flap will further reduce the chances of infection.

Signs of infection at the first dressing will call for a most energetic treatment. There are three means at our disposal—Penicillin, drugs of the sulpha group and nonspecific protein therapy. None of these is entirely dependable. Recourse must be had therefore to all of these. Examination of the smear will help in the selection of the sulpha drug to be employed in any particular case. Injection of milk should be given immediately, and repeated if necessary. The sulpha drug whichever is decided upon should be given six hourly for as long a time as necessary. Dosage should be adequate. It is safer to err on

the side of overdosage. Penicillin if it was being administered before should be continued. It should be started immediately otherwise. The treatment should be continued till the condition is well under control. Penicillin should also be given subconjunctively, the dose being 25,000 units every three hours. Recrudescence is not uncommon following premature cessation of treatment.

It cannot be overemphasised that in spite of the measures suggested above the treatment is very unsatisfactory. Prophylaxis though very important cannot be relied upon. Vigilance during the first 48 hours is therefore very necessary. It may still be possible to save the eye and preserve useful vision if infection is detected in the first stage.

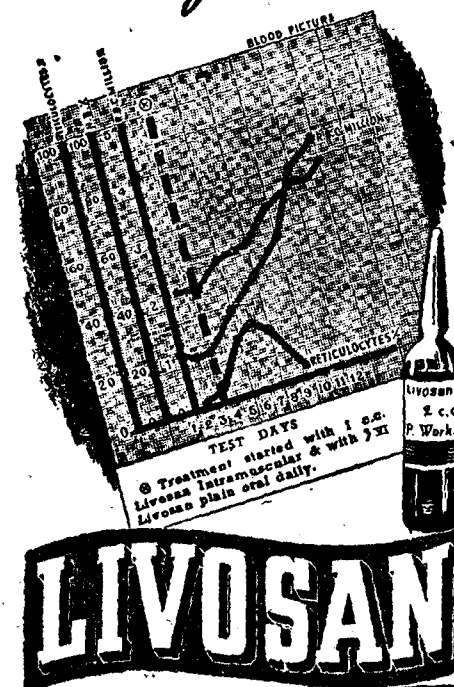
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ASSOCIATION NOTES

NAGAPATTINAM BRANCH

President: Rao Sahib C. H. Venkateswaran.
Vice President: Dr. J. Y. Arthur.
Hon. Secretary: Capt. S. S. Chari.
Jt. Secy. & Treasurer: Dr. T. S. Varadachari.

The monthly meeting of the above association was held on 28-8-48. Dr. C. H. Venkateswaran presided. Dr. R. G. Dorai stood as host for the day.

The ballot paper was distributed at the meeting, for the election of President and Vice-presidents of I.M.A. Central, and the election took place. The accounts of the association were passed up to the end of June 48 and the auditor's report was adopted.

The secretary was asked to take up the work of the treasurer until further orders or till fresh election takes place.

A collection of Rs 52/- was made to Dr. D. V. Venkappa's fund and remitted to Dr. U. Krishna Rao and it was duly acknowledged.

A resolution was passed requesting the members to contribute Rs. 10/- for the annual meeting to be celebrated in a fitting manner.

Dr. S. S. Chari opened a discussion on 'Migrain' and many took part in the discussion.

After the President's concluding remarks, the Secretary thanked the host and the members present at the meeting.

SALEM BRANCH

President: Dr. B. A. Raja Rathnam.
Vice-President: Dr. S. Krishnamurthy Rao.
Secretary: Dr. K. R. Hariharan.
Treasurer: Dr. K. V. Dhanakoti Nayudu.

The monthly meeting of the Association was held at the Foulke's hall, Salem on Saturday the 31st July 1948 at 5-30 P.M.

In addition to fifty members of the association, both local and mofussil, Dr. R. Anandan Pillai, Assistant Director of Public Health, the Municipal Health Officer and the Municipal Commissioner attended the meeting.

After refreshments, kindly provided by Drs. K. V. Dhanakoti Nayudu, Yuvaraj Singh and R. Sundaravaradachariar, the proceedings commenced at 6-40 P.M., with the President taking the chair and declaring the meeting open.

The Secretary read the minutes of the previous meeting held on the 26th June, which were approved and confirmed. The proceedings of the

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ASSOCIATION NOTES

21

committee meetings held on the 26th June 48 at Foulke's Hall and on 21st July at the Co-operative Rest House, were read.

The Secretary read the various communications received from the Hon. Secretary, South Indian Provincial Branch of the I.M.A., Trichy, the communication from the Government of Madras, expressing their irrevocable decision regarding the Sanatorium question, and the communication received from the Collector and District Magistrate, Salem, in reply to the copy of the Telegram to the Hon. Minister for Public Health, sent to him regarding the Cholera situation in the town.

The appeal sent to the members of the profession, by Dr. R. Shanmugham Pillai, the District Medical Officer, Salem, through the President of the Association requesting the cooperation of all the members in controlling the cholera infection, was read. Dr. Shanmugham Pillai, particularly solicited the services of the members in the isolation wards of the local Head Quarters Hospital for treatment of infected cases.

The following resolution was then proposed by Dr. K. R. Hariharan, seconded by Dr. K. V. Dhanakoti Nayudu and passed unanimously.

Since the advent of the monsoon, the incidence of Malaria in the town has increased to an alarming degree. Most of the cases are heavy mixed infections of both the M.T. and B.T. types of parasites and some fatal cerebral cases have also been observed.

The existing anti-mosquito measures of the town are quite inadequate and the present moment calls for an intensively active campaign. There are very many congested localities in the town where the infection is definitely endemic.

It is highly regretted by this association, that a preventible disease like malaria is nurtured to gain strength in a first class Municipality like ours, with all the advantages of modern science and technical experts on the preventive side.

Dr. R. Anandan Pillai, Assistant Director of Public Health who was specially deputed by the Government to study the cholera situation in the town, in response to the telegram sent to the Hon. Minister for Public Health, then addressed the members.

He said, that the prevailing sanitary conditions in very many localities of the town are appalling. He attributed the spread of infection mainly to this factor. He assured the members that the water supply was above blame but all the same, he has arranged to chlorinate the water four times its usual strength, he said. He concluded by appealing to the members to extend their full cooperation in controlling the infection.

Dr. Hanumantha Rao, the Municipal Health Officer, thanked the members for the help being rendered by them, and appealed for their continued cooperation to check the spread of cholera in the town.

Dr. Shanmugham Pillai, District Medical Officer, Salem, then read a very inspiring paper on appendicitis. The subject was of special interest to all the practitioners and the lecturer with his advantage of years of rich surgical experience, could deal on the clinical pictures and treatment of the different types of the disease in a very graphic manner.

Beginning with the anatomy, surface anatomy, clinical pathology, and aetiology of appendicitis, the lecturer dealt at great length, on the different clinical types of the disease, as also on their differential diagnosis and

treatment. The importance of early diagnosis and institutional treatment in the acute types, and the necessity for removal of the appendix in the recurrent and chronic types at the earliest opportune moment were among the many points emphasised by Dr. Shanmugham Pillai.

In the discussions that followed Dr. S. R. Rajaram cited the frequency of amoeboma of the Caecum in the tropics, which may simulate chronic appendicitis, and laid emphasis on the necessity for repeated motion examinations in suspected cases to exclude amoebiasis.

The meeting concluded with the Secretary proposing a vote of thanks, to the hosts of the evening. Dr. Shanmugam Pillai, the president and the members especially the mofussil brothers and sisters.

* * * * *

An emergent meeting of the association was held on the 8th August 48 at 5-15 P.M., at Foulke's Hall, Salem, when Dr. M. V. Mulay M. S., an eminent surgeon of Sholapur, former President of the Indian Medical Association, Sholapur and member, Working Committee, Central Council of the Indian Medical Association, addressed the members of the Association on 'Clinical manifestations of chronic septic absorptions.' Thanks to the kind offices of Dr. R. Shanmugam Pillai, one of our most energetic and enthusiastic members, the unexpected presence of Dr. B. V. Mulay at Salem, was availed of to our great benefit.

31 members attended the meeting and Dr. Shanmugham Pillai the host of the evening could look around with satisfaction, at the attendance, which was quite up to his expectations. At the tea, the Secretary introduced all the members to Dr. B. V. Mulay.

Tea over, the president in introducing Dr. B. V. Mulay to the members, apprised them of the fact that Dr. Mulay was one of the few leaders in the profession, who took a sustained and lively interest in the affairs of the medical association from as early as 1915.

Dr. Mulay, a gifted speaker, gave his lecture extempore, and made a brief survey of the effect of the absorptions of exotoxins from septic foci on the various tissues of the body, viz. fibrous tissue, muscles, vascular system, nervous system, supra-renals, pancreas, bones etc., and at the same time, detailed the common sites of septic foci in the body.

An outstanding feature of the address, was the fund of practical hints, given by the learned surgeon, about the clinical picture and treatment of these affections culled from his long years of experience.

A lively discussion followed the lecture, in which a good number of members took part. Dr. Shanmugam Pillai discussed the aetiology of peptic ulcers. Dr. S. R. Rajaram about septic absorptions from amoebic ulcers, the President and Dr. K. Govindarajulu about the technique of the special treatment suggested by Dr. B. V. Mulay for some of these complaints. Dr. M. V. Sethumadhavan and some others also took part in the discussion.

The meeting concluded with the usual vote of thanks proposed by the secretary to Dr. B. V. Mulay for his very enlightening and instructive address. Dr. Shanmugam Pillai, the host of the evening, the president and the members, who responded to the urgent call in such good numbers.

* * * * *

The monthly meeting of the Association was held at the Foulke's Hall,

Salem, on Saturday the 21st August 1948 at 5-30 P.M.

In addition to the 53 members of the profession, both local and mofussil, 8 members of the nursing staff of the Local Head Quarters Hospital attended the meeting, the latter by special invitation, since the subject of the evening was of interest to them. Almost all the lady doctors attended the meeting.

After Tea provided by Dr. T. Mohan Rao, Dr. V. S. Ganesan and Dr. V. Sambasivam, the hosts of the evening, the proceedings commenced at 6-30 P.M., with the president in the chair.

The minutes of the previous meetings held on the 31st July, 48 and 8th August 48 were read by the Secretary which were approved and confirmed.

The following doctors were proposed to serve as our representatives in the Central Council by Dr. K. R. Hariharan and seconded by Dr. S. Krishnamurthi Rao.

- (1) Dr. M. V. Sethumadhavan.
- (2) Dr. K. V. Dhanakoti Nayudu.

They were elected unanimously.

Dr. M. Subramanian and Dr. S. R. Rajaram and Dr. S. Valeeswaran were elected unanimously as our representatives to the Provincial Council, being proposed by Dr. K. R. Hariharan and seconded by Dr. K. V. Dhanakoti Nayudu.

The Secretary read the communication from the provincial Rationing Officer, Madras, in reply to the letter of 30-6-48 regarding supplementary quota of petrol.

The following resolution was proposed by Dr. S. Valeeswaran, seconded by Dr. K. R. Hariharan and passed unanimously.

"This association, while appreciating all that has been done so far by the

Health staff to combat the cholera epidemic in the city, is of opinion that intensive propaganda by way of lectures, hand-bills etc., is still necessary."

"Drastic steps should be taken to prevent food-stuffs and other eatables, being sold exposed near drains, and road margins, particularly near school premises. Offences booked under the heading may be sent to magistrates for deterrent punishment."

The president, in introducing Dr. R. G. Krishnan, to the members said, that our association was lucky to get such an eminent specialist and one who adorned the Andhra university chair of obstetrics and gynecology till recently, to address the members this evening.

Dr. Krishnan then addressed the gathering on 'Abnormal uterine Bleeding,' for a little over an hour. In the short time at his disposal, the learned professor made an analytical survey about the different types of bleeding, their causes, the percentage of incidence of each type, their diagnosis, and treatment.

The role of the pituitary hormones in the functional type of bleeding and the signs and symptoms of early carcinoma of the cervix, were important features of the lecture.

A lively discussion followed the lecture, and the following doctors took part:

Dr. Miss A. Mathew, Dr. S. R. Rajaram, and Dr. K. Govindarajulu and Dr. B. A. Rajarathnam.

The meeting concluded at a late hour with the secretary proposing a vote of thanks to Prof. Krishnan, the hosts of the evening, the members, the lady doctors and the members of the nursing staff of the local Head Quarters Hospital.

THE SALEM DISTRICT MEDICAL ASSOCIATION

This Association notes with regret the proposal of the Provincial Government published in 'The Hindu' dated 3-9-48 to levy renewal fees under the Madras Medical Registration Act to all practitioners already registered, thus treating the profession on a par with commerce. It is not so much the financial implication, but in the opinion of the Association, this new procedure is humiliating. As such the Government is requested to drop the proposal.

2. This Association resolves that the Government may be requested to send copies of all Government communications relating to medical profession to the Provincial Medical Council and its District Branches.

Proposed by Dr. M. Subramaniyan and seconded by Dr. K. Govindarajulu.

Passed unanimously.

TANJORE BRANCH

President: Dr. Janab Mohamad Ismail
Vice-President: Dr. T. M. Pillai
Secretaries: Dr. E. K. Menon
Dr. P. A. K. Nair

The monthly meeting of the above association was held on Sunday the 25th July 1948 at 4-30 P.M. at the Medical School Buildings, Tanjore. 34 members were present.

After Tea, the meeting commenced with Dr. Janab Md. Ismail, President of the Association in the Chair. The minutes of the last meeting were read by the Secretary and adopted.

A circular received from the Hony. Secretary, South Indian Provincial Branch was brought to the notice of the members for the selection of a President from the list of nominations received from the various branches. Dr. T. S. Tirumurthy was proposed by the President and passed unanimously.

A letter received from the Hony. General Secretary of the Indian Medical Association inviting the

nominations of our branch for the offices of a President and three Vice-Presidents of the All India Central Council for the ensuing year (1948-49) was read in the meeting for the selection of those office-bearers.

Dr. Sir A. Lakshmanaswamy Mudaliar was proposed by the Chair for the Presidentship and passed unanimously. For the Vice-Presidentship Drs. R. Mahadevan, P. Kutumbiah and M. G. Kini were proposed by the chair and passed unanimously.

The communication from the Central Office calling for the names of the representatives to the Central Council of the Indian Medical Association and the other office-bearers of our association was brought to the notice of the members. The house was unanimously of opinion to have the following office-bearers for the year 1948-49.

Representation to the Indian Medical Association.

Central Council: } Dr. N. R. Subramanyam
Dr. P. A. K. Nair

Provincial Council: } Dr. N. Ramanathan
Dr. N. R. Subramanyam
Dr. P. A. K. Nair

Auditor for the year: } Dr. S. Narayanan

Collaborator of the Journal of the I.M.A.: } Dr. S. Jayaraman

The following resolution was brought by Dr. N. Ramanathan and was passed unanimously.

"This assembly sends its hearty and sincere congratulations to Dr. Sir A.

Lakshmanaswamy Mudaliar on the conferment of the Hon. Degree of Doctor of Civil Laws on him by the Oxford University." The Secretary was authorised to communicate the above resolutions to Dr. A. L. Mudaliar.

Following these Dr. Miss Y. Tiphagne, M.D. (Paris) of the St. Anne Hospital, Kumbakonam gave a lecture on "Sterility in Women: Principal causes and treatment."

A very lively discussion followed.

Then the meeting terminated with a vote of thanks to the chair, lecturer and members and specially to Dr. V. K. Pandiyan, F.D.S. the host of the day for entertaining the members to Tea.

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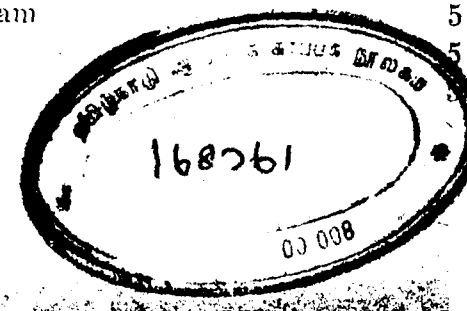
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Dr. Mrs. Pichai Pillai	Kallakurichi	10
Dr. Mrs. Fereiro	Cuddalore	10
Dr. Mrs. Manickam	"	10
Dr. Stephen Lucas	Panrutti	10
Dr. Ananthakrishnan	Pennadam	10
Dr. Mrs. Subadhara	Cuddalore	5
Dr. Mrs. Kurian	"	5

Negapatam

Dr. R. Gnanadurai	Negapatam	Rs. 5
Dr. Miss T. K. Narayanaswamy	"	5
Dr. C. H. Venkateswaran, Civil Surgeon	"	5

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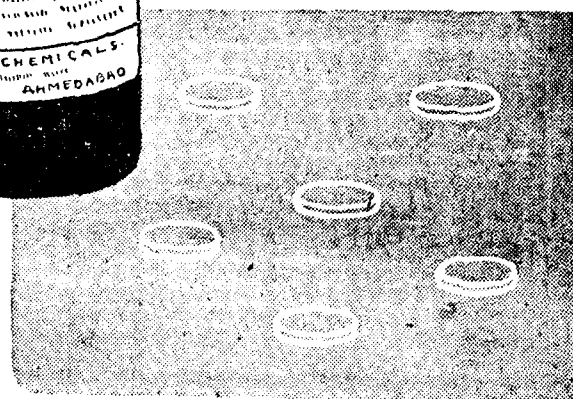
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The "Inneraze" shoe for children has been devised for the treatment of flat foot, with an in-built wedging between the inner and outer sole, avoiding shoe distortion and consequent uneven wear.

In an American Army Hospital in Germany a list of the men to receive hypodermics was published daily under the head line "TARGETS FOR TONIGHT."

Nose Surgeon: "Continuous pain in your head? That must probably be a block."

Patient: "No, it was a brick."

Dentist: "What, have you broken my dentures so soon?"

Patient: "It was this way doctor. My girl kissed me so violently last night"

"You see the doctor over there? He speaks only in terms of millions."

"Is he so rich?"

"No, he is a bacteriologist."

Doctor: If you walk 4 to 5 miles a day, I am sure all your complaints will be relieved.

Patient: In addition to my present professional walk, doctor?

Doctor: What are you?

Patient: I am a postman, I have to tramp at least 4 to 5 miles a day.

Doctor after examining a fair young lady from head to foot.

"I am afraid we have been on a wild good chase, madam; your trouble is after all some congestion in the throat."

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(A proteolysed Liver Tonic with
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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.

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

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