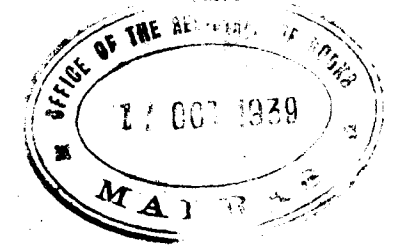


248

THE MISCELLANY

OF



THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION

(REGISTERED)

FOR CIRCULATION AMONGST MEMBERS ONLY.

JULY

1939

ADVERTISE in the
MISCELLANY

and reach the doctors in the Towns and Villages.

Rates of subscriptions for Advertisers for 1939—

Cover	...	Full page	...	Rs. 6 per mensem.
"	...	Half page	...	Rs. 4 per mensem.
Ordinary	...	Full page	...	Rs. 4 per mensem.
"	...	Half page	...	Rs. 3 per mensem.

Annual Rates are as follows—

Cover	...	Full page	...	Rs. 65 -
"	...	Half page	...	Rs. 40 -
Ordinary	...	Full page	...	Rs. 45 -
"	...	Half page	...	Rs. 30 -

We go to press by the 10th of each month for the next month's issue. If no intimation of change of matter or discontinuance of the advertisement is received by that date, it will be concluded that there is no change and the advertisement will be printed as in the previous month's issue.

Please address all business correspondence to :—

TREASURER,

THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION,

Trichy Medical Union Ltd., Teppakulam, Trichinopoly.

No. 7

EXTRA MEDICAMENTS !

HIPPOSARCINE ROY Total aseptic muscular extract with Hemoglobin in an agreeable base. Most valuable in the treatment of Anaemias, primary and secondary, following child-birth; debility, convalescence from all infectious diseases; rickets, neurasthenia etc., etc.

CONTRANOPHELE Malaria is the scourge of tropical countries. In the race for finding out a sure treatment for this disease research students of the world have spent their lifetime. CONTRANOPHELE now comes as the latest treatment of this disease and is bound to succeed where others have failed. This is the greatest enemy of the anopheles.

UROSALOL These capsules are composed of oil of sandalwood, salol, and hexamethylene-tetramene. They are invaluable as an adjunct in the treatment of gonorrhoea and allied urinary disorders. Their efficacy has been proved by the consistent support given to them by the Medical Profession since their manufacture.

UNITED FRENCH LABORATORIES

POST BOX 88,
MADRAS.

17, SUNKARAMA
CHETTY STREET, MADRAS.

LIVERITES

FOR

Infantile Liver and Spleen Disorders.

It is preferred because:

1. It is both prophylactic and curative,
2. It is both economic and efficacious,
3. It is both appetitive and tonical.

Above all, it is tried and acclaimed as the only remedy by the Medical Men of our country.

What more do you want ?

If you want any particulars please write to

LIVERITES COMPANY,

Head Office :
Tanuku, West Godavari.

Branch Office :
Chintadripet, Madras.

A-O of TUBERCLE BACILLI .:

DISCOVERED BY

Prof. Dr. ARIMA, Dr. K. AOYAMA & Dr. J. OHNAWA

A-O is made from Tubercle Bacilli of the human type. It is sterile, consists of the native protoplasm of the bacilli, is absorbed, is completely innocuous, is derived from strongly immunizing strains of bacilli and has a uniform potency. A. O. is indicated in cases of latent tuberculosis, (apical catarrh), surgical tuberculosis, urogenital tuberculosis, ophthalmological tuberculosis, dermal tuberculosis, pleurisy, peritonitis, in convalescence, disorderly menstruation due to innate weakness, glandular affections, laryngeal and intestinal tuberculosis. A. O. is used for a (1) Therapy, (2) Diagnosis, and (3) Prophylaxis. A. O. is innocuous and has no ill effects.

Prices considerably reduced from 1st May, 1939.

Made by :

THE ARIMA INSTITUTE, OSAKA, JAPAN.

Agents :

T. M. THAKORE & Co., 5, Sunkurama Chetty Street, Madras
Head Office: 43, Church Gate Street, Fort, Bombay.

P. B. 2239,
CALCUTTA.

THE CLINICAL LABORATORY

TRICHINOPOLY

Provides complete laboratory investigations in all Branches of work, i.e. BIO-CHEMICAL, PATHOLOGICAL and BACTERIOLOGICAL.

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

For further particulars apply to—

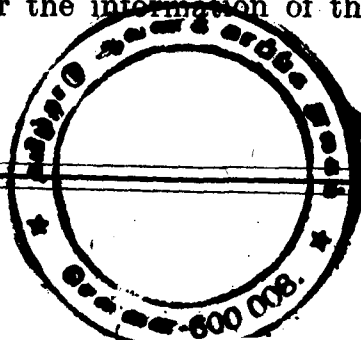
PATHOLOGIST,
THE CLINICAL LABORATORY,
10, CHINNAKADAI STREET, TEPPAKULAM,
TRICHINOPOLY.

MISCELLANY OF

THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION
(REGISTERED)

The Secretary requests contribution on Medical, Topical and News Subjects from Members of the Association and other medical men. Contributions should be sent typed in duplicate and signed by the contributor. In case where it is desired to write under a nom-de-plume the signature must be included for the information of the Editor as a token of good faith.

July, 1939.



THE MISCELLANY

OF THE
TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION
(REGISTERED)

FOR CIRCULATION AMONGST MEMBERS ONLY

Vol. VI]

JULY 1939

[No. 7

Electrotherapy in General Practice

BY

E. P. CUMBERBATCH, B.M., F.R.C.P.

(From the Practitioner, Aug. 1938)

ELECTROTHERAPY in general practice may be taken to mean electrical treatment that can be conducted by medical practitioners who have had little tuition and less practical experience in the subject and do not wish to purchase expensive apparatus or have a room specially wired and equipped for its installation. Certain forms of electrical treatment will therefore have to be excluded. The apparatus needed for diathermic treatment costs not less than about £50/- and much experience must be acquired before it can be successfully employed in the treatment of some of the disorders, e.g. those of the pelvic organs, for which diathermy is most useful. The price of the outfit needed for short-wave treatment is at least double the sum mentioned. The apparatus used for deriving galvanic and sinusoidal currents from the main is less costly, but additional expense may be incurred in order to equip a room and make it impossible for patients to receive accidental electric shocks (so-called earth-shocks) when they are under treatment. Useful treatment can nevertheless be given by the galvanic current derived from a battery of dry cells and by the faradic current provided by an induction coil. The apparatus is not costly and the accessories are simple and easy to obtain.

52
Lem 2492, NBSMS - NBS. 6.7-9

Galvanic Current

1. The first is surgical in character. Originally it was called electrolysis but a better name for it is electrochemical cauterization. By reason of its simplicity and the good cosmetic results that follow its use, it is of special value in the treatment of certain troubles of the skin of the face and elsewhere. A needle of zinc or platinum is used as an active electrode. An indifferent electrode is applied to the skin of some other part, e.g. the forearm. This electrode is a piece of metal which is separated from the skin by a pad soaked in warm water. The pad can be made of lint or bath towelling. It should be $\frac{1}{2}$ inch thick and slightly larger in area than the metal. The electrodes are connected to the battery by insulated wires. The needle is inserted into the tissue to be treated. During the passage of the current caustics form in contact with the needle and migrate a short distance around the metal. By this method of killing tissue, the operator is able to produce the caustic below the surface and in the situation desired. In addition, the quantity of caustic formed is under his control, being determined by the strength and duration of the current. The method is particularly suitable for the following troubles:—

A STELLATE VEIN (SPIDER NAEVUS) will disappear after a zinc needle, connected to the positive terminal of the battery. It is inserted to a depth of two or three millimetres into the central vessel and a current of one milliampere passed for one minute. In old cases the tributaries of the central vessel may have anastomosed with one another. If this is the case, some of them may need similar treatment later on, a smaller current being used for a shorter time. This form of treatment, sometimes known as zinc needling, can be successfully practised when newly-grown venules are transfixed here and there and the current is passed for thirty seconds. Zinc needling is an effective method of removing telangiectases.

PEDUNCULATED WARTS, in many cases, will gradually shrink and disappear after their bases have been transfixed by a zinc needle and a current of one milliampere passed for one minute. Flat warts, especially those that are only slightly raised, are unsuitable for treatment by this method, chiefly from difficulty in the technique.

SUPERFLUOUS HAIRS can be safely and permanently removed by platinum needling. The cases selected should be those in which the hairs are coarse. Hairs of medium thickness are more difficult to remove permanently, and the treatment should not be attempted when the hairs are fine and numerous. The active electrode is a fine stiff wire made of a platinum iridium alloy. Its free end should be round rather than sharp. It is mounted on a suitable holder and connected to the negative terminal of the battery. It is inserted into a follicle and a current of one milliampere passed for fifteen to sixty seconds, according to the size of the hair. The hair is then lifted out of the cauterized follicle by a forceps. Its glistening pigmented bulb should be seen at the end of the shaft. About twenty hairs can be removed at a single séance.

Small pigmented MOLES and PORT-WINE STAINS can be treated by zinc needling. A series of punctures are made and the points where the needle is inserted must be very close together. The cases selected should be those in which the lesions are quite small because the treatment of large areas by this method is too slow and tedious. If the moles are hairy they usually disappear after the hairs have been removed by the method just described.

2. The second method of treatment that can be practised by means of the galvanic current is one in which the current is used for the purposes of effecting the entry into the body of ions possessing therapeutic properties. This form of treatment is commonly known as ionization. Formerly it was thought that salicylic ions, iodine ions, and others, could be made to migrate a considerable distance into the body and reach the pathological tissue requiring treatment. It is now known that they cannot be made to pass more than a short distance below the surface. In fact, it is only in the skin and the accessible mucous membranes that they can be expected to exert their therapeutic properties.

The most commonly used ions are those of zinc. Zinc ionization is of value in the treatment of infection and inflammation, with or without ulceration, of mucous membranes. When these ions migrate into the affected tissues they unite

with the tissue proteins and transform them into a zinc-albumin compound. In this way a sterile, tenacious protective covering is formed. It acts as an ideal dressing because it stays in position for a few days, preventing re-infection from without and not irritating the underlying tissues. The organisms within it are killed.

Zinc ionization is probably the most effective treatment for chronic infective proctitis. It is of undoubted value in ulcerative colitis. Uncomplicated cases of chronic suppurative otitis media can be expected to come to an end after one or two treatment by its means. Cervicitis can effectively be treated by zinc ionization. The same form of treatment is now being used for hay fever and, although it does not procure immunity, it is more successful than other methods in preventing further attacks for the remainder of the season.

The treatment of the above-mentioned maladies by zinc ionization needs special experience, and the outfit and procedure are rather elaborate. For this reason it comes more within the domain of those who specialize in electrotherapeutics. On the other hand the treatment of septic wounds and ulcers of the skin that do not respond to the usual therapeutic methods is a simpler procedure and the electrodes are easy to make. The wound or ulcer is packed with cotton-wool soaked with a 1 per cent solution of zinc sulphate. A lead sheet smaller than the cotton pad is placed over this and connected to the positive pole. A few layers of lint, similarly soaked, are applied to the wool and covered with a slightly smaller layer of sheet brass or lead to which a terminal is attached. This terminal is connected to an indifferent electrode placed in some other convenient situation. The current should be as strong as the patient can bear without undue discomfort.

3. If the galvanic current is passed through the body by way of a pair of electrodes of the kind previously described as indifferent there is no cauterization of tissue and no entry of therapeutic ions. The current is capable, nevertheless, of bringing about certain therapeutic effects. Long before the introduction of ionization it was known that this current had the power, not only to relieve pain, particularly in cases

diagnosed as peripheral neuritis, but also to aid the resolution of inflammation, especially in cases of trauma when the process by natural methods is slow or incomplete. There is therefore a third form of galvanotherapy. It is possible that the current acts by procuring vasodilation. In the absence of precise knowledge of its mode of action the treatment may be called simply galvanism.

Galvanism is frequently able to procure further relief of pain and reduction of swelling in cases of sprain and contusion when the action of simpler remedies is ineffective. It is often effective in relieving pain in the distribution of nerves, such as the occipital, brachial and sciatic. The cases in which it produces the best results are those in which the pain is referred and due to the presence of fibrositis in the neck, shoulder or hip. One electrode should be applied to the region where the fibrositis is present and the other to the chest, forearm or leg. The former electrode should be connected to the negative terminal of the battery so as to make it the kathode. The latter is connected to the positive terminal and is therefore the anode.

Some cases of trigeminal neuralgia can be successfully treated by galvanism. It is necessary that the active electrode, the anode, should cover the whole of the affected side of the face, and that the current should attain a considerable intensity. At the first séance a current of twenty milliamperes may be used, but as the séances are continued it may be necessary to increase the current progressively to higher values, even to fifty or more milliamperes.

Hard adherent scars left after burns or injury can be softened if treated by galvanism. There is no doubt about the value of this method although its action is slow. Treatment twice or thrice weekly over a period of three months may be required. The electrode applied to the scar should be the kathode.

Treatment by galvanism is of value in cases of indolent wounds and of ulcers that are unduly slow in healing. The active electrode should be the kathode. If the wound or ulcer is septic it should receive preliminary treatment by zinc ionization.

FARADIC CURRENT

The faradic current is widely used in the treatment of paralysis or weakness of muscles due to injury or disease of their motor nerves. Its purpose is to exercise the muscles that show reactions of the normal type. If they show the reaction of degeneration the current will be unable to make them contract. This form of treatment should not be administered in cases of spastic paralysis. When muscles are weak and wasted in consequence of injury or diseases of the joints which they move, the faradic current can render useful help after the disease or traumatic inflammation has subsided. By this means the muscles are exercised and enabled to regain their power.

The active electrode is a padded metal disc about one inch in diameter. With one hand the operator holds it over the belly of the muscle to be treated, keeping his fingers in contact with the skin so as to ascertain how the muscle is going to respond. With the other hand he moves the iron core in and out of the primary coil so as to make the muscle contract and relax. Each muscle is treated in turn, care being taken not to fatigue them by over-exercise.

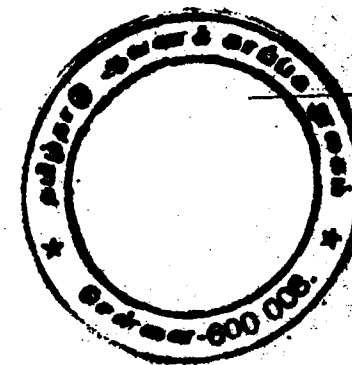
The faradic current can render useful service in cases of recent trauma by giving gentle artificial exercise to muscles in the vicinity of the injury. In this way resolution is aided and the tendency to the formation of adhesions is counteracted.

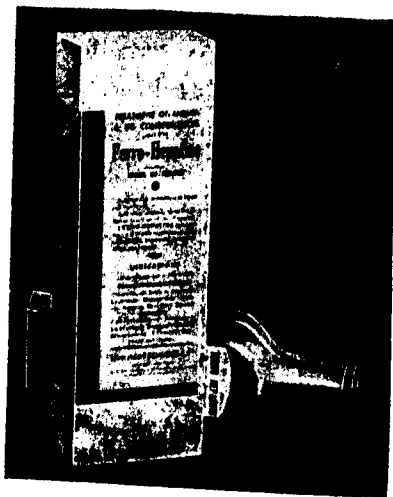
It is not generally known that the faradic current can often be successfully used in cases of the common chilblain (erythema pernio). A simple method of administering the treatment is to apply a plate electrode to the palm or sole and move a disc in turn while the current is passing. This treatment quickly relieves the irritation and the chilblains disappear.

Time Needed for Practice of Electrotherapy

The use of electrical methods in the treatment of most of the maladies mentioned above occupies a great deal of time. Not only have the electrodes to be prepared and put away, before and after each application, but many of the cases are chronic and need regular treatment over a long period. It is

doubtful if the necessary time could be spared by the general practitioner. He could depute much of the work, however, to a trained assistant. Treatment by massage and remedial exercises has long been the work of specialists in this line. The practitioner can render valuable service by selecting cases that are likely to benefit and prescribing the most suitable current. Electrical treatment is too often reserved for chronic intractable cases that have resisted all other therapeutic measures, and the selection of the current is frequently left to the Specialist. The general practitioner could undertake treatment of this kind. It occupies much less time than the other forms of electrical treatment and the results are pleasing to the patient.





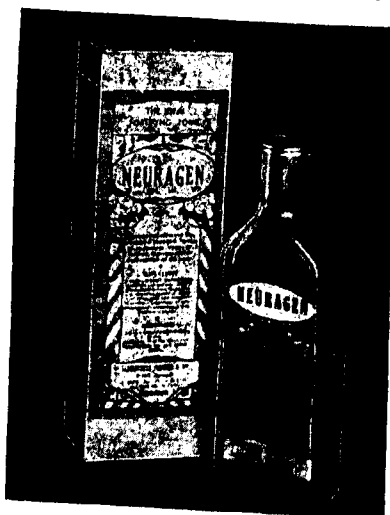
FERRO-HEPATINE

Formula :

Concentrated Liver Extract,
Vitamins B & C,
Calcium Phosphate,
Tinct of Strychnos,
Phosphoric acid,
Iron Salt,
Traces of Copper Nucleinate,
Manganese Salt.

INDICATIONS:—All kinds of Anaemias, Anorexia, Convalescence, Pregnancy, Lactation all conditions inducing demineralization and Deficiency in vitamin B.

A bottle of 250 c.c. will last for 23 days
Price Rs. 3/12/- per bottle.



NEURAGEN

Formula :

Glycerophosphates of Iron,
Sodium, Calcium, Strychnine.
Manganese,
Sodium Calcium formoxil,
Nuts kola extract Fluid,
Waho Ext. Fluid,
Intestinal Fermants,
Papine,
Complete Ext. of Vitamin B,
Vitamin C,
Organic Copper Salt,
Iron Sulfate,
Manganese Sulp.

INDICATIONS:—General Debility, Malnutrition, Nervous exhaustion, Mental and Physical Overwork, Asthenia, Dyspepsia and intestinal disorders.

A bottle of 180 c.c. in concentrated form will last for 24 days.
Price Rs. 2/12/-

The same is available with 5% HEMOGLOBIN
by the name of HEMO-NEURAGEN.

Apply for sample and literatures to—

The Indo-French Pharmaceutical Co.,

1/11-A, Muker Nallamuthu Street, G.T., Madras.

Prophylactic Use of Sulphonamide in Labour

(The Practitioner, July 1939)

The sulphonamide group of preparations do not protect a woman against puerperal sepsis if given prior to labour; in fact, I have seen many cases develop haemolytic streptococcal infections when such a practice had been adopted. If there is any reason to suspect that a woman might develop a haemolytic infection, a sulphonamide preparation should be given during and immediately after delivery. It is probable that anaerobic streptococcal and other types of sepsis would prove to be commoner than infection by a haemolytic streptococcus, in which case sulphonamide preparations would probably not assist when used as a routine in suspected cases unverified by bacteriology. However when bacteriology is available it is wise to give sulphonamide preparations to patients with high temperature after delivery, and to discontinue the use of the drug only when the absence of haemolytic streptococci is revealed. If bacterial methods are not available, the practice of starting with proseptasine at once in all suspicious cases is correct.

SULPHONAMIDE AND ACUTE OTITIS MEDIA

It is quite certain that sulphonamide should not be given in all cases of acute otitis media, as a number are catarrhal and will settle down without the administration of what may be a dangerous drug. In all cases it must be remembered that there are certain risks and complications from the administration of sulphonamide. At the other end of the scale is the type of case in which drum is perforated or in which paracentesis has been performed. If, in addition, the organism is known to be a streptococcus or a pneumococcus, then sulphonamide should undoubtedly be considered. It should be given in such cases in which the signs and symptoms do not

immediately improve after myringotomy. Thus, sulphonamide should be given only in cases in which there is a definite risk of mastoiditis or other complications. It is then most valuable in aborting these complications, though it may make the progress of the disease difficult to assess. If this masking effect is remembered and a careful watch is kept on the drum and a judicious use is made of radiology of the mastoid in doubtful cases, then the benefits far outweigh the disadvantages. But any case which fails to respond to adequate dosage in four to five days, must be suspected of complications. The danger is chiefly one of prolonged and inadequate dosage. It must also be remembered that the organism can develop an immunity to the drug which will render them less sensitive to its action if complications develop later which demand a larger and efficient dose.

The Action of Alcohol

(Clinical Journal, July 1939)

Alcohol is rapidly absorbed from the stomach and intestines and distributed by the blood to the different organs. A variable but always small proportion escapes unchanged in the breath and urine. The rest is slowly oxidised, disappearing from the blood at the rate of about 0.185 c.c. per kilo of body weight per hour. The energy liberated by the combustion of a moderate amount of alcohol can be used by the body, and therein lies the whole value of alcohol as a food. But this food value has no advantage over the much cheaper sugar, and its action as a drug has to be taken into account. This is mainly on the nervous system and narcotic effect producing a sense of well-being by blunting the higher mental faculties. At a lower level of the nervous system sense perception and skilled movements are impaired. The speed and amplitude of the knee-jerk were diminished by a dose of 30 c.c. of alcohol, equivalent to 2. oz. of whisky or 1¼ pints of beer. Alcohol has no practical value as a direct stimulant of the heart in cases of threatened failure. When it appears to promote recovery from fainting this is due to its irritant action on the mucous membrane of the mouth, and is comparable to the action of smelling-salts. When, in conditions of more protracted cardiac weakness, alcohol has a beneficial effect, this is due mainly to its mildly sedative action, relieving the centres which modify the action of the heart from the disturbing influence of pain and anxiety. The mildly narcotic action of alcohol is the most important from the therapeutic point of view. It may relieve distress and promote sleep. But it must be prescribed with care and judgment. During convalescence or in a chronic illness it may improve appetite.

Alcohol impairs skilled movements, and this fact is most important in the driving of motor cars. By means of an artificial motor-driving apparatus Vernon made an experimental study on the effects of small quantities of alcohol (20 to 45 c.c. in the form of whisky, taken on the driving capacity of various

persons. He found that most of them drove more quickly and more erratically than in normal circumstances. For the most part they did not realize that they were driving faster, but one deliberately drove more slowly because he realized his reduced control, and several drove for short distances with a rush and then slowed down before again driving faster. There was far greater variability not only in speed, but also in accuracy and carefulness of driving after alcohol had been taken. This was noticeable even after reducing the amount of alcohol to that contained in half tumbler of mild beer (5 c.c.). Some were certain that they were driving better, though they were driving worse. Other experiments revealed not only an impairment of attention to signals and environment, but also slower responses of the eyes, hands and feet. There were wide individual differences in the mental effects, depending on the kind of alcoholic drink and previous habituation to alcohol.

Recent work has shown that the form of peripheral neuritis which occurs in chronic alcoholics is due not, as was supposed, to a poisonous action of alcohol on the nerves, but to a deficiency of the B vitamins, especially B₁ and is therefore closely related to beri-beri. How alcohol leads to this deficiency is somewhat obscure, but decreased intake of vitamin B₁, due to the poor appetite of the alcoholic and to the fact that he can obtain energy from alcohol instead of from other foods, and possibly to increased utilization of the vitamin, are suggested as factors. Alcoholic neuritis, formerly regarded as a chronic and intractable disease, will in some cases respond rapidly to adequate doses of the vitamin. There is evidence also that some other morbid effects of chronic alcoholism, notably the gastric changes and the "alcoholic heart," may be due, at least in part, to vitamin B₁ deficiency.

REVIEW

"Prontosil"—A Survey of the New Chemotherapy

Published by BAYER REMEDIES LTD.

Commerce House, Ballard Estate, Bombay

This is a well-printed Hand-book of 64 pages with a large list of References printed at the end. As the preface would have it, the book is intended to give a clear account of the three Prontosil preparations. Prontosil Rubrum, Prontalbin and Prontosil Soluble. There is an interesting discussion about the Pharmacology, absorption and excretion of the compounds. Discussing on the action of the Drug a well-guarded summary is put in, viz., "to dogmatise at present is not possible." May be it is a vital one not to be explained in terms of Chemical actions.

The Section on clinical experiences deals with various affections with suitable references in the various Continental Schools and also in America.

"Toxic effects of Prontosil" is the heading of another portion where Cyanosis, Sulph and Meth haemoglobinuria, Agranulocytosis, anaemia, acidosis, Disturbances of vision, etc., are discussed and the findings are that in the Continent and India where the Red Prontosil is excessively used such effects are rare.

The book concludes with the prevention of toxic effects by enumerating the following points towards prevention.

- I. Administration always after meals and in prescribed dosage.
- II. Reduce dosage as soon as clinical progress permits.
- III. Avoid administration of Sulphates, eggs and onions.

- IV. No continuous treatment if possible for over a fortnight.
- V. Don't expose patients to natural or artificial sunlight.
- VI. Watch for extreme pallor, sorethroat, dyspnoea and persistent vomiting.
- VII. Severe infections may justify its use in the presence of cyanosis, drug fever, nausea, and slight jaundice but only under strict observation.
- VIII. Serial leucocyte count in severely ill patients with a history of anaemia or purpura.

The Trichinopoly District Medical Association

(Registered)

A monthly meeting of the above Association was held on Friday the 9th June 1939 at 5 P. M. in the Govt. Head-Quarters Hospital, Trichinopoly, when about 60 doctors were present. Dr. M. A. Krishna Iyer was At Home on the occasion. Rao Bahadur Dr. A. Lakshmanaswami Mudaliar, B.A., M.D., F.C.O.G., Principal, Medical College, Madras, delivered an interesting lecture on "Emergencies in obstetric practice."

During the course of the lecture Dr. A. Lakshmanaswami Mudaliar said that obstetric emergencies could be divided into three categories according to the period at which they were likely to occur. The usual emergency during the first trimester, i. e. during the first 12 weeks was (1) retroverted uterus—This can be early and easily diagnosed by palpation and the treatment is simple i. e. correct the position with a pessary and postural treatment.

2. Ectopic gestation—This is evidenced by unilateral swelling, pain and sometimes pulsation in the fornix. The diagnosis can be confirmed by putting a needle in the fornix and free blood can be drawn. If an ectopic gestation ruptures there will be acute pain and symptoms of collapse. Differential diagnosis between this condition and twisted ovarian cyst or acute appendicitis is very difficult but as the treatment is the same, immediate laprotomy should be performed. Even if the diagnosis of appendicitis is definitely made operation during this trimester is the best period as the removal of the appendix is easier, chances of infecting the uterus less and termination of pregnancy rare.

During the second trimester i. e. 12th to 24th week the usual complication is pyelitis due to B. coli infection as the system is devitalized due to endocrine unbalance. Treatment of this condition is by mendallic acid and prevention is by

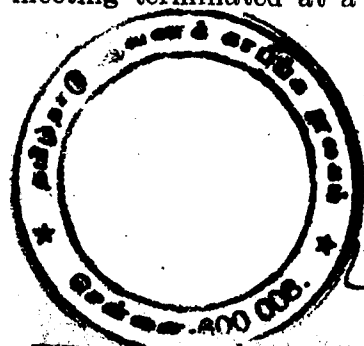
administration of anterior pituitary extract in earlier stages and post pituitary extract in later stages. Constipation is also likely to be a prominent factor during this period and must be suitably treated. Anaemia of pregnancy and vitamin deficiency are likely to occur during this stage and should receive necessary treatment.

During the 3rd trimester or last weeks of pregnancy emergencies are, accidental and unavoidable anti-partum hæmorrhage. If such a hæmorrhage occurs before 36 weeks the risk is for the child. After 36 weeks there is not much risk either for the child or for the mother. Causeless and painless bleeding is due to placenta previa. This condition can be diagnosed with a certainty by either amniography or visualizing the bladder by filling it with sodium iodide solution and making radiography. For marginal placenta previa terminating pregnancy by bringing down a leg of the child and for central placenta previa caesarian section is the only treatment of choice.

The lecturer said that even without emergencies during pregnancy certain ante-natal measures were essential. The patient should be weighed twice a week and blood pressure should be noted every week and urine also examined frequently. Increase of weight of 5 or 6 pounds a week during toxemia of pregnancy indicates renal deficiency. Puerperal sepsis is invariably due to neglect of hygiene of generative and urinary passages, or interference during delivery. When once sepsis has set in no intra-uterine douche or medication should be carried out, not even vaginal douche is indicated, but for laceration of the cervix gauze soaked in cod liver oil plugging is the best treatment. The gauze can be changed on alternate days. Puerperal serum is of no use but haemo-therapeutic drugs are very useful.

With a vote of thanks to the lecturer and the host the meeting terminated at a late hour.

P. A. S. RAGHAVAN,
Secretary.



32
M 2192, 285MS.
N 39. 6. 7-9



CITROCARBONATE

A palatable antacid which reduces gastric hyperacidity partly by neutralization and partly by buffering of acid.

Citrocarbonate functions as a systemic alkalizer and as a mineral nutrient. It supplies the four essential body bases: Sodium, Magnesium, Potassium, and Calcium, in approximately the same proportion as they are found in the blood.

Citrocarbonate is an efficient alkaline diuretic. The organic salts are rapidly absorbed and oxidized and thus contribute base and bicarbonate to the blood stream.

Indications:—As an antacid, as a fever mixture, to alkalize the urine, as an aid in water therapy.

Dosage:—1 to 2 teaspoonfuls in a full glass of cold water as indicated.

Supplied in bottles of 4 and 8 ounces.

Manufactured by:
THE UPJOHN COMPANY,
KALAMAZOO, MICHIGAN,
U. S. A.

Sole Agents:
T. M. THAKORE AND COMPANY,
5, SUNKURAMA CHETTY STREET, G. T., MADRAS.

Head Office:
43, CHURCHGATE STREET, FORT, BOMBAY.

Branches:
CALCUTTA - KARACHI - LAHORE - NOVA-GOA - RANGOON

SIROP THIO-CALCIN (Reg.)

A SUPER CALCIUM TONIC & COUGH SPECIFIC

Containing: Pot. Sulpho guiacolate grs. 20. Assimilable Calcium grs. 30

Orange Juice, Aromatics etc. oz. 1

Dose: 1-2 teaspoonfuls In 6, 16, 64, 128 oz. vials.

WITH VITAMINS A. & D. Vitamin A. ... 25000 I. U.
" D. ... 5000 I. U.
Thio Calcin ... 1 oz.
For Tuberculosis, Osteomalacia, Rickets.

Dose: 1-2 teaspoonfuls. In 6, 16, 128 oz. vials.

EPHEDRINE

Ephedrine Hydrochlor. ... grs. 2.
Thio Calcin ... oz. 1.

For Asthma etc. Dose 1-2 teaspoonfuls. In 2 & 16 oz. vials.

WITH E. M. H.

**THIO
CALCIN**

Ethyl. Morph. Hydrochlor. ... 1/3 gr.
Thio Calcin ... 1 oz.

For all irritant & troublesome hacking Cough.
Dose 1-2 teaspoonfuls. In 2 & 16 oz. vials.

SOLD AT ALL CHEMISTS AND

FROM

DADHA & Co., P. M. ZAVERI & Co.,
Madras. Bombay & Calcutta.

For Samples & Literatures apply to:

THIO CALCIN Co.,
16, Venkatesapuram, Mylapore, Madras.



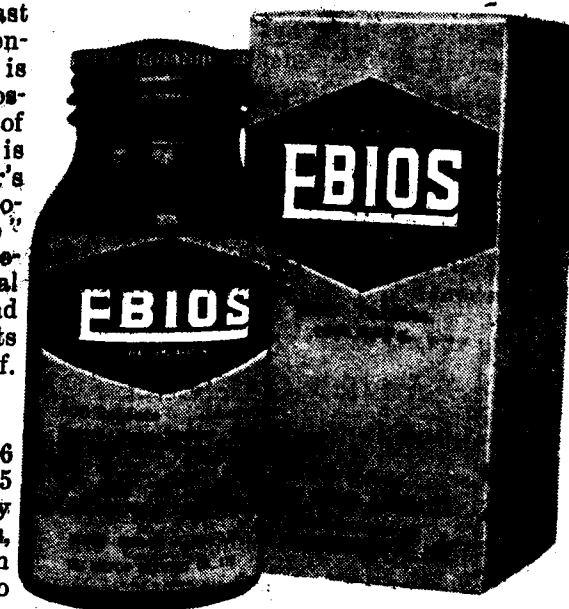
EBIOS

GENUINE BREWER'S YEAST

EBIOS is a medicinal yeast preparation made of "Bottom-Fermentation-Brewer's Yeast" at the Dai Nippon Brewery Company.

Yeast has been applied to medicinal purposes from ancient times. While along with the progress in the study of "Vitamins," "Brewer's Yeast" proved to have a high content of Vitamin-B, and has been widely used as a source of Vitamin B recently.

But among the Yeast species "Bottom Fermentation-Brewer's Yeast" is the only one which possesses a high content of Vitamin-B, and EBIOS is made of this "Brewer's Yeast" by a patent process "low temperature" without any marked deterioration in the original activity of Vitamin-B and other active constituents of the Yeast cell itself.



Doses:

Generally take 4-6 tablets (powder 1.0-1.15 grams) three times a day before or after meals, but according to condition it may be necessary to take more.

Manufactured by: DAI NIPPON BREWERY CO., LTD.

Available in packings of: Bottles of 300 and 70 tablets.

Bottles of 100 and 25 Grams powder.

Sole Agents: MITSUI BUSSAN KAISHA LTD.,

Madras, Calcutta, Bombay, Rangoon, Karachi.

Sole Sale Agents: For Madras Presidency and States—

THE ORIENT DRUG CO.,

No. 91, Nainiappa Naik Street, P. T., MADRAS.

Stockists: M. AKBAR & BROS., TRICHINOPOLY.

"MERRELL'S"

DISTINCTIVE MEDICAL PREPARATIONS.

ELIXIR ALYCIN

ALYCIN ELIXIR presents Natural Salicylates with a wisely selected alkaline base. Toleration of massive doses of Salicylate is possible with Alycin. Complete Salicylization where necessary may be achieved with minimum side disturbance. In the treatment of Rheumatic and Arthritic conditions, as well as common cold, Influenza, La-grippe etc. Alycin is the Salicylate combination of preference.

A dram of Alycin presents a mixture of Natural Sodium, Calcium, and Magnesium Salicylates and Natural Salicylic Acid (20 grains) in a balanced Alkaline base comprised of Sodium Bicarbonate, Calcium and Magnesium Carbonates (40 grains).

A STRONG DEFENCE AGAINST ACIDITY.

MILK OF MAGNESIA

Doctors are finding that many ailments such as Headaches, dizziness, Bilioussness, indigestion are caused by an acid condition in the stomach.

As an antacid and laxative "MERRELL'S MILK OF MAGNESIA" has been recommended by many doctors because of its purity. It promotes digestion, acids elimination, invigorates the intestinal tract.

THE WM. S. MERRELL COMPANY,

(Founded 1828)

CINCINNATI, OHIO, U.S.A.

For particulars apply to:—

CHIMANLAL DESAI & Co.,

P. O. Box No. 1241,

MADRAS.

Head Office:—

Gool Mansion, Homji St.,

FORT, BOMBAY.



TO RESTORE
MENTAL & PHYSICAL ENERGY.

TO REVITALIZE

NERVES
BRAIN POWER
BLOOD & MUSCLES

TO PROMOTE

GROWTH & CONVALESCENCE

ALVO-NUVITON

THE NUTRITIVE FOOD FOR ADULTS AND
CHILDREN

ALVO-NUVITON is a novel and ingenious treatment containing those substances responsible and indispensable for the proper working of the entire Organism.

ENJOY LIFE

REGAIN VITALITY

ALVO

ECSTASY

FOR WOMEN

FOR MEN

for Reinvigoration of Body and Mind

Regenerates Your Organism
Restores Nerves and Blood
Counteracts Neurasthenia
Removes Symptoms of Premature Decline



Sole Distributor for whole India:

O. S. M. AHAMED MARICAR, Karikal (French India.)

CIROBIL

REGISTERED

The quickest and sure cure for enlargement of Liver and Spleen in Children and Adults.

Definite improvement in 21 days and complete cure in a few weeks.

ISSUED IN TWO SIZES

Procurable everywhere and from the

STOCKISTS:

Messrs. VINAYAGAR MEDICAL HALL,
TRICHINOPOLY.

Messrs. MEDICAL UNION LTD.,
TEPPAKULAM, TRICHINOPOLY.

Sole Proprietors:

DADHA & Co.,

PHARMACEUTICAL CHEMISTS,
PARK TOWN, MADRAS.

Printed by Rev. Fr. A. Susai Regis,
Superintendent, St. Joseph's Industrial School Press, Trichinopoly and published by
Dr. T. N. Subramanian, L.M. & S., China Bazaar Road, Teppakulam, Trichinopoly—1939.

874

THE MISCELLANY

OF



THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION

(REGISTERED)

FOR CIRCULATION AMONGST MEMBERS ONLY.

AUGUST

1939

ADVERTISE in the MISCELLANY

and reach the doctors in the Towns and Villages.

Rates of subscriptions for Advertisers for 1939—

Cover	...	Full page	...	Rs. 6 per mensem.
"	...	Half page	...	Rs. 4 per mensem.
Ordinary	...	Full page	...	Rs. 4 per mensem.
"	...	Half page	...	Rs. 3 per mensem.

Annual Rates are as follows—

Cover	...	Full page	...	Rs. 65/-
"	...	Half page	...	Rs. 40/-
Ordinary	...	Full page	...	Rs. 45/-
"	...	Half page	...	Rs. 30/-

We go to press by the 10th of each month for the next month's issue. If no intimation of change of matter or discontinuance of the advertisement is received by that date, it will be concluded that there is no change and the advertisement will be printed as in the previous month's issue.

Please address all business correspondence to:—

TREASURER,

THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION,
Trichy Medical Union Ltd., Teppakulam, Trichinopoly.

No. 8

INCREASES:

THE HAEMOPOIETIC FUNCTION OF THE LIVER ::
THE DEFENSIVE POWER OF THE CELLS ::
THE ORGANIC IRON IN HAEMOGLOBIN ::

HEPATOglobine

ANAEMIA — CONVALESCENCE

●
COMPOSITION:

Extract of Liver, Muscular Plasma, Oxy-Haemoglobin

Each tablespoonful contains $\frac{2}{3}$ rd of an ounce of fresh liver
 $3\frac{1}{2}$ ounces of fresh meat.

DOSE:

2-3 Tablespoonfuls daily before meals.

Essential active principles of Extract of
Fresh Cod Liver, Vanadium arsenate,
Juice of fresh fruit :: ::

Deprived of fatty substances, it is very
palatable and free from Cod fish smell.

NEOGADINE

(ELIXIR)

INTELLECTUAL OVERSTRAIN—RICKETS—LYMPHATISM—
PRE-TUBERCULOSIS

Each Tablespoonful is equivalent to FOUR Tablespoonfuls of
Cod Liver Oil.

Adults: 3-4, Tablespoonfuls.

Children: 3-4, Teaspoonfuls diluted in a small quantity of soda or water.

Agents: RAP TAKOS, BRETT & Co., Ltd.,

BOMBAY.

CALCUTTA.



TO RESTORE
MENTAL & PHYSICAL ENERGY
TO REVITALIZE
NERVES
BRAIN POWER
BLOOD & MUSCLES
TO PROMOTE
GROWTH & CONVALESCENCE



ALVO-NUVITON

THE NUTRITIVE FOOD FOR ADULTS AND CHILDREN

ALVO-NUVITON is a novel and ingenious treatment containing those substances responsible and indispensable for the proper working of the entire Organism.

ENJOY LIFE

REGAIN VITALITY

ALVO ECSTASIN

FOR WOMEN

for Reinvigoration of Body and Mind

Regenerates Your Organism
Restores Nerves and Blood
Counteracts Neurasthenia
Removes Symptoms of Premature Decline

FOR MEN



Sole Distributor for whole India:
O. S. M. AHAMED MARICAR, Karikal (French India.)

EXTRA MEDICAMENTS !

HIPPOSARCINE ROY Total aseptic muscular extract with Hemoglobin in an agreeable base. Most valuable in the treatment of Anaemias, primary and secondary, following childbirth; debility, convalescence from all infectious diseases; rickets, neurasthenia etc., etc.

CONTRANOPHELE Malaria is the scourge of tropical countries. In the race for finding out a sure treatment for this disease research students of the world have spent their lifetime. **CONTRANOPHELE** now comes as the latest treatment of this disease and is bound to succeed where others have failed. This is the greatest enemy of the anopheles.

UROSALOL These capsules are composed of oil of sandalwood, salol, and hexamethylene-tetramene. They are invaluable as an adjunct in the treatment of gonorrhoea and allied urinary disorders. Their efficacy has been proved by the consistent support given to them by the Medical Profession since their manufacture.

UNITED FRENCH LABORATORIES
POST BOX 88,
MADRAS.
17, SUNKARAMA
CHETTY STREET, MADRAS.

LIVERITES

FOR

Infantile Liver and Spleen Disorders.

It is preferred because:

1. It is both prophylactic and curative,
2. It is both economic and efficacious,
3. It is both appetitive and tonical.

Above all, it is tried and acclaimed as the only remedy by the Medical Men of our country.

What more do you want ?

If you want any particulars please write to

LIVERITES COMPANY,

Head Office :
Tanuku, West Godavari.

Branch Office :
Chintadripet, Madras.

A-O of TUBERCLE BACILLI .:

DISCOVERED BY

Prof. Dr. ARIMA, Dr. K. AOYAMA & Dr. J. OHNAWA

A-O is made from Tubercle Bacilli of the human type. It is sterile, consists of the native protoplasm of the bacilli, is absorbed, is completely innocuous, is derived from strongly immunizing strains of bacilli and has a uniform potency. A. O. is indicated in cases of latent tuberculosis, (apical catarrh), surgical tuberculosis, urogenital tuberculosis, ophthalmological tuberculosis, dermal tuberculosis, pleurisy, peritonitis, in convalescence, disorderly menstruation due to innate weakness, glandular affections, laryngeal and intestinal tuberculosis. A. O. is used for a (1) Therapy, (2) Diagnosis, and (3) Prophylaxis. A. O. is innocuous and has no ill effects.

Prices considerably reduced from 1st May, 1939.

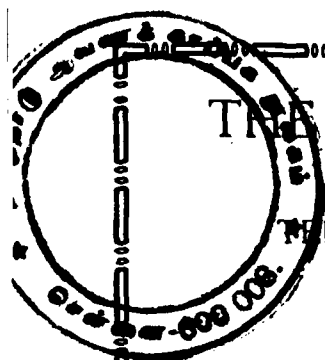
Made by :

THE ARIMA INSTITUTE, OSAKA, JAPAN.

Agents :

T. M. THAKORE & Co., 5, Sunkurama Chetty Street, Madras
Head Office: 43, Church Gate Street, Fort, Bombay.

P. B. 2239,
CALCUTTA.



THE CLINICAL LABORATORY,

10, CHINNA KADAI STREET,
MADHAPPAKULAM P. O., TRICHINOPOLY.

BIO-CHEMICAL

Glucose	}	Tolerance.	Blood Calcium.
Galactose			Van den Bergh's Test.
Levulose			Gel & Chopra Test for K.A.
Blood Urea & Urea Clearance.			Gastric Analysis.

SEROLOGY

Kahn Wassermann Widal

C. S. F. For { Bio-Chemical
&
Bacteriological } examinations.

Note:— * (1) Kahn Flocculation test done on Mondays, Wednesdays & Fridays.
(2) Wassermann Reaction done on **Fridays only**.
(3) Widal Reports are given **within two hours**.

LAB. SET

Outfit with instructions on application.

CONTENTS:

- (1) Two Blood tubes:—For Blood Count only.
- (2) Sterile tube or Capsule for Kahn & Wassermann, Widal, Van den Burgh.
- (3) Oxalated Tubes for Blood Urea, Cholesterol, Creatinin etc.
- (4) Sterile Bottle:—For transmitting Urine.
- (5) For sending Faeces:—For Occult Blood, Bacteriological examination, for Ova etc.
- (6) Small Bottle:—For Sputum.
- (7) Outfit for transmitting blood for Sugar Estimation which contains Oxalate & Sodium fluoride prevents Clotting and Glycolysis.

THE MISCELLANY

OF THE

TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION

(REGISTERED)

FOR CIRCULATION AMONGST MEMBERS ONLY

Vol. VI]

AUGUST 1939

[No. 8

Treatment of Malaria

ALTHOUGH Malaria in India still claims the largest toll of mortality yet it has ceased to occupy the 'front-page-news' in the medical press, perhaps because there is nothing new or sensational to be told about this disease. So far as its eradication is concerned, it has become a problem of sanitary engineering which in turn is dependent on State enterprise and initiative. It will be foolhardy on our part to harp on this aspect of this question, and therefore we will be content by reviewing the relative value of quinine, atebirin and plasmoquine in the prevention and treatment of malaria and its too frequent relapses. The criterion of cure is not only that the patient should be free from pyrexia but also that his blood and tissues should be free from malarial parasites. And on this should be based the assaying of relative merits of quinine and its synthetic counterparts. In this connection the recent discussion on the *Treatment of Malaria in a Military Population* at the Royal Society of Medicine by the military medical officers seems to throw a flood of light. Col. Smith who had large experience in India and China said while atebirin was an excellent drug in many ways it had very little action on the relapse rate. Plasmoquine was useless for an acute attack but was absolutely necessary in preventing a high relapse rate. Col. Boyd concurred with the opinion about the effectiveness of plasmoquine in reducing the incidence of relapses. Commodore Wittingham said that for all cases treated with quinine the relapse rate was approximately 40% with plasmoquine about 10% and with atebirin 5 per cent over a three months period. These results are in accord

32
2021192, 0185 MS
N38. 6-7-9

with clinical experiences in general practice in this country so much so atabrin-plasmoquine treatment has become a general rule, atabrin during the pyrexial period and plasmoquine during the apyrexial stage. But unfortunately these new synthetic drugs are not capable of mass application as is the case with quinine and is therefore limited to closed communities over whom medical supervision and control is possible. When plasmoquine was first introduced there were many fatalities owing to overdosage and it was soon found that the addition of quinine not only lessened its toxicity but also increased its effects. The discovery of atabrin soon followed which fortunately proved to be better than quinine in many respects both from the clinical and parasitocidal points of view. The present standard treatment is therefore atabrin first which aims at clinical cure by killing the schizonts, and plasmoquine at a later period with a view to kill the gametocytes which are vital links in the man-mosquitomalaria cycle, and are also the prolific cause of relapses. In brief, the relative position of quinine and synthetic products is that the former is still the sheet anchor in mass prophylaxis and treatment where medical supervision is impossible, while the latter are the drugs of choice in the treatment of individual patients and closed communities where medical supervision is possible. Even while the synthetic products are used, Sinton's advice to control the acidosis and hypoglycemia by alkalis and glucose should under no circumstance be forgotten. We would also like to emphasise in this connection that the controversy, quinine *vs.* synthetic products, arises from interested quarters, and has very little to do with the scientific aspect of the subject.

ACTION OF QUININE AND THE SYNTHETIC DRUGS OF MALARIA

(From 4th General Report of League of Nations Malaria Commission)

	Action on Trophozoites		Action on Gametocytes		Action on Acute Symptoms		Action on Frequency of relapse	Action on Splenomegaly	Effect (general condition of patient)
	B.T. + Q.	M.T.	B.T. + Q.	M.T.	B.T. + Q.	M.T.			
QUININE	Daily dose of 1 g. (15 grs.) causes disappearance in 5-7 days.	Daily dose 1-3 g. (20 grs.) causes disappearance 5-7 days.	Affects pregametocytes and gametocytes.	Affects pregametocytes but gametocytes only very slightly.	Marked action from 3rd day (2nd paroxysm.)	Variable action from 3rd or 4th paroxysm.	Acts on all species but in B. T. and Q. relapse rate may reach 50 per cent.	Acts on all species but effect is transient where re-infection or relapses are frequent.	No effect on treatment limited number of days essential
ATEBRIN	Daily dose of 0.3 g. causes disappearance after 3 days. Effects last longer than quinine.	Daily dose of 0.3 g. causes disappearance after 4 days in 90% of cases.	Similar to quinine but slightly more marked.	Similar to quinine.	Very marked action. Fever falls by 2nd paroxysm.	Marked action. Fever usually falls by 3rd paroxysm but with some strains certain strains effect is less than quinine.	Effect slightly more than quinine especially in B. T. & of M. T.	Effect somewhat slower than quinine but seems to last longer.	Sometimes yellow coloration of skin
PLASMOQUINE	Slight action only.	Practically no action.	Definite action in both species.	Marked action in minimum dose of 0.02 g.	No indications for using plasmoquine alone for treatment of acute attack.	Definite effect in B. T. & Q. In association with quinine and atebirin it has a marked effect in reducing relapses in all 3 species.	Insufficient data.	In the dose now used (0.02 g.) it seems to have no depressing effect.	

NOTES

A.—Action of Combinations of Drugs

1. There is no advantage in combining quinine and 'atebrin' in treatment.
2. Quinine + 'plasmoquine' simultaneously produce less frequent and less intense toxic symptoms than 'atebrin' + 'plasmoquine' but are best given consecutively where possible. Quinine (15-20 grains daily, 7 days) + 'plasmoquine' (0.02 gr. daily, 5 days*) are probably the best treatment for B. T. and Q. malaria.
3. Simultaneous administration of 'atebrin' and 'plasmoquine' aggravates the toxicity of each and is not recommended. Consecutive treatment with 'atebrin' (0.3 g. daily, 5-7 days) and 'plasmoquine' (0.02 g. daily, 5 days*) has no advantage in the primary attack, but acts on gametocytes and relapses in the same manner as quinine and 'plasmoquine' treatment.

B.—Practical Suggestions for Treatment

1. *Individual Treatment.* Quinine (15-20 grains) or 'atebrin' (0.3 g.) 5-7 days followed by 'plasmoquine' (0.02 g.) 5 days, or quinine + 'plasmoquine' simultaneously.
2. *Treatment in Field.* Quinine (15-20 grains) or 'atebrin' (0.3 g.) 5-7 days, followed by 'plasmoquine' (0.02 g.) 5 days if funds and medical supervision are available. But if, as usual, this is not so, short treatments with the cinchona alkaloids are more suitable.
3. *Mass drug Prophylaxis.* Daily doses of quinine (0.4 g. or 6 grains), or bi-weekly doses of 'atebrin' (0.2 g.)

[Since due to the war Atebrin and Plasmoquine are becoming costly and rare, the following course is suggested.

5 to 7 days 15 to 20 grs. of Quinine per day and then 5 grs. of Quinine per day for a week or two doses of plasmoquine 0.02 grms. in a week.—*Editor.*]

* For gametocidal purposes alone, however, one dose of 0.02 g. 'plasmoquine' followed by a second dose, if necessary, on the 5th day is equally effective. It may be noted also that in one mass treatment experiment (in Sardinia), the daily administration of 0.02 g. 'plasmoquine' had to be stopped after 3 days on account of toxic symptoms.

Sterilization of Syringes in General Practice

Practically, every physician in general practice has evolved his own method of sterilising syringes and needles intended for hypodermic and intravenous injections at the patient's home. The outfit is usually kept in an antiseptic fluid or oil as chloroform, rectified spirit, absolute alcohol, carbolic or dettol lotion, or medicated olive oil. The needle is thrown away only when it breaks. Most of the practitioners claim that for all practical purposes this method of disinfection has resulted in no serious misadventures or calamities.

But the question is not so simple, and we are amazed at the complacent attitude of the busy physicians. For it has been proved beyond doubt that almost all the popular antiseptic fluids or oils cannot be kept absolutely sterile, particularly when they are frequently exposed or used for the purpose for which they are intended. The mere fact of the absence of suppuration in the injected area should not lull them to a false sense of confidence and security in these so-called antiseptic methods of keeping the injection outfit.

Abscess formation is indeed a direct reproach to the physician. He certainly avoids it, but we think his responsibility does not end there. He is answerable for the complete sterility of his instrument, and anything less than that, despite the excuse of a busy practice, is to invite unknown dangers.

The semi-sterilization in ordinary practice is proved by two events which are usually made light of by the general practitioners. They are: pain of varying degree and induration at the spot of injection. Pain may pass after sometime, but induration lingers. These are certainly the effect of incomplete sterilization, the result of a sub-lethal dose of septic organisms.

Induration is particularly dangerous as, by the very nature of its pathology, it leaves a permanent nidus of slow infection or offers a hiding place for anaerobic organisms like tetanus which may blaze up when the patient's power of resistance is impaired for some reason or other.

An ideal injection should, therefore, not only avoid frank suppuration but also pain and induration. The question then arises: what is the best method of sterilization to achieve these objects?

It must of course be suitable even to a busy practitioner to whom time is too precious to be wasted.

We think that boiling is the best, and a little time spent over this process is nothing compared to the mischievous potentialities of a permanent or temporary induration. Spirit-stove boiling for 15 or 20 minutes would make the instruments practically sterile, and the post-injection complications of pain and induration would be reduced almost to nil.

Another oft-raised objection to boiling is that needles may get blunt and rusted after repeated boiling. It is of course difficult to fix the number of injections which a needle is capable of, even with high-grade rustless steel needles now available in the market. While one needle for one injection is the ideal, just as one gramophone pin for one plate, it may not be an economical proposition for an average practitioner. It may, however, be laid down as a working principle that a needle should only be subjected to minimum use consistent with its sharpness and strength. The greater the number of times it is used, the blunter and weaker it becomes, and what is equally important, it then becomes more difficult of complete sterilization even within half-an-hour of boiling.

Safety first should be the essential consideration in the sterilizing methods, and any half-baked methods extemporised to save the labour and the time of a busy practitioner will ultimately bring reproach to him and put his patient to the hazard of unknown and hidden dangers. 'A stitch in time saves nine' is a proverb which is literally applicable to the selection of methods to sterilize the injection outfit.

Teeth as Indicators in Tuberculosis

The value of dental examination as a diagnostic and prognostic factor in tuberculosis is not carried out. Metabolic disturbances cause changes in the blood reaction in the form of a reduced or increased alkalinity, and these changes are the casual factors of dental caries and pyorrhoea—the two conditions being biochemically antagonistic, as one is a symptom of acidosis and the other a symptom of alkalosis. Investigations carried out in a number of cases of tuberculosis have shown that an active carious condition of the teeth coincides with an active tuberculous or new active dental caries was noted by the author to coincide with a flare-up of the tuberculous condition. Conversely, patients with no active dental lesion, or tendency to pyorrhoea, are, usually resistant to tubercle bacilli, or hold their own with fibrosis. Some interesting cases are reported in support of this view—in one case of active pulmonary tuberculosis the teeth were in a state of wholesale decalcification, and the patient died within a few weeks. In a second case evidence of past caries (hardened) and a superimposed recent activity. In a third case the teeth showed evidence of a previous tendency to pyorrhoea, followed by a recent development of decalcification, and the medical history revealed a recent development of tuberculosis in a previously fit person. Owing to the diagnostic and prognostic value of teeth in tuberculosis they should not be removed except when active septic conditions are present, and when tuberculous contacts show any signs of decalcification of the teeth general examination should be carried out more frequently and carefully so that treatment may be instituted in the early stage.

(Tubercle, April 1939.)

The Treatment of Whitlow.

The treatment of perionychia by the application of iodine to the gaping junction of the skin and nail-plate in the neighbourhood of the lunula is described by W. G. Harvey (British Journal of Dermatology and Syphilis, May 1939, 51, 215). A brush, or match-stick with a piece of cotton-wool wrapped round its end, is used for the purpose and it is essential that the iodine should run completely round the nail: if this does not occur spontaneously the skin above the lunula should be slightly raised so that the fluid may encircle the nail and appear at the free edge. The treatment should be carried out twice daily, and also when the hands are washed. No ointments or grease should be applied as they interfere with the passage of the iodine, but in some cases where pus is exuding antiphylogistine or a poultice can be applied at night to reduce the swelling and assist the process of cleaning-up. This additional treatment should be stopped as soon as possible, however, and the iodine alone employed. The colour of the iodine may be unsightly, but this is an asset as it ensured the running-in of the full quota of iodine. Small doses of X-Rays (1/3 Sabouraud pastille) once or twice, at about a ten days' interval, assist in some cases, but this is not always possible. The iodine treatment is simple and can be carried out by the patients themselves.

Radiography of the Chest

The value of radiography in the diagnosis and treatment of phthisis is still not sufficiently appreciated and discussions on the relative merits of radiological and physical examination—and by the last term is often meant stethoscopic examination—still take place. I do not wish to underestimate the value of physical examination and I would perhaps place more value on palpation and percussion than on auscultation—the position of the trachea and apex beat, the stony dullness of fluid, the hyper-resonance of a pneumothorax give information of the highest diagnostic value. Moreover, I believe that a physician expert in physical examination with adequate time at his disposal and in a suitable environment will detect many tuberculous lesions even at an early stage of development though even he will not be able without radiography accurately to estimate the extent of the disease but the average physician who sees a large number of patients during one sessions in surroundings often not free from traffic and other noises cannot possibly rely on physical signs. Moreover there is no doubt that even extensive active tuberculous lesions are found unassociated with any abnormal physical signs, and that such signs may be present though the disease is no longer active. Every patient who finds his way to a dispensary should therefore have his chest X-rayed, though a physical examination will precede this and will enable the diagnosis of other or associated chest conditions, such as bronchitis, emphysema, mitral disease, etc. An X-ray film is not diagnostic, of course and it must be correlated with the history and other clinical findings. By radiography of the chest, it should be pointed out, is meant much more than the taking of an indifferent anter-posterior photograph. The film must be of good quality and one or more of several ancillary radiographic methods may be needed in some cases: screening for examining the movements of the diaphragm or to assist in the diagnosis of shadows suspected of being due to pleural collections, lateral or oblique films to detect isolated lesions situated

behind the cardiac shadow or to assist in the diagnosis of interlobar effusions, heavily over-exposed films to confirm the presence of cavitation in dense shadows, tomography to detect and accurately localise cavities, and bronchography to assist in the differential diagnosis. Kymography by which a record of the movements of the various thoracic viscera is obtained, is a method that promises further help in the future. These ancillary methods are essential because the tuberculosis officer should not be concerned merely with diagnosing the presence of phthisis, he should be able to estimate the extent and type of lesion so as to be in a position to decide on the initial form of treatment required.

Bacteriological Methods

The use of concentration methods for the detection of tubercle bacilli have been known for many years but they do not appear to be often practised. The methods of culture of the sputum and of culture and animal inoculation of the gastric contents in those who do not expectorate are of comparatively recent date. Since the finding of bacilli is our only single pathognomonic criterion of active tuberculosis, methods which increase appreciably the percentage of positives are worthy of attention. I would remind you of the figures of Dr. Peter Edwards: In 100 patients in whom tubercle bacilli had previously been demonstrated but who had been negative by direct smears on three consecutive occasions, the gasolene concentration method gave 37 positives and the culture method 49; in 100 patients in whom tubercle bacilli have never been demonstrated (T. B.—and observation cases) and who had been examined by direct smears on at least three occasions, the concentration method gave nine positives and the culture method 14. In regard to gastric contents in, a paper now in press I have shown with Dr. Hounslow that in no less than 35 per cent of patients who had no sputum or only traces of sputum in which no tubercle bacilli could be shown by other methods including culture, tubercle bacilli were isolated from the gastric lavage by culture or animal inoculation. Neither the culture nor the gastric lavage methods need be confined to in-patients. Both can be carried out at a dispensary when shortage of observation beds or the refusal of the patient to leave home compels completion of the diagnosis at the dispensary. Culture will provide an answer in two to four weeks and gastric lavage in two to six weeks. At present our voluminous statistics so laboriously collected on sputum negative and positive cases still depend not rarely on the making of a single smear and a glance or two down the microscope.

Of other pathological investigations, the only one of value in the out-patient clinic is the sedimentation rate. While a normal figure by no means excludes the presence of active

tuberculosis, a raised figure supports a diagnosis of active disease provided other common causes for it can be excluded.

The tuberculin test should, however, be mentioned here. It is indispensable in dealing with children, and only by its use can rational diagnosis and contact examination of children be carried out. In progressive clinics all children have a complete tuberculin test carried out, and only if this is positive are they X-rayed. The Mantoux test is the only satisfactory tuberculin test, and it should be carried out with a 1 in 100 dilution if necessary. The new product PPD allows completion of the test in two doses. The routine performance of a complete Mantoux test would save many children months of institutional treatment for alleged tuberculous cervical adenitis or peritinitis or for radiological shadows due to non-tuberculous infections.

The modern tendency is therefore to provide at least a small pathological laboratory with a trained technician. The value of this in diagnosis is considerable and the cost is fully repaid in the relief of pressure on beds.

MEDICAL OFFICER.

Clinical Examination of the Urine

BY

(DR. V. IRAVATHAM),

Diploma-in-Clinical Laboratory Sciences—Madras

A great deal can be learnt about urine by naked-eye examination together with a few simple chemical and microscopical tests. This article will discuss the tests which can be carried out quickly by a general practitioner and not to make any reference to more elaborate investigations such as are usually left to a clinical pathologist.

Naked-Eye Examination

It is proposed to consider first the patient who complains that his "water is thick." He may bring a sample in a medicine bottle in his pocket. Generally it is possible to decide quickly whether or not the turbidity is of any significance. If the turbidity disappears on warming it was due to urates, which only means that the urine was concentrated. If the turbidity remains when the tube has been warmed then another test-tube of urine should be taken and a few drops of acetic acid are added. A turbidity which clears up with acetic acid is due to phosphates and this also is not of much consequence. On the other hand, if the turbidity persists after warming and after acidifying it is probably due to pus, blood, or bacteria.

Inspection of urine is important also in the case of a male patient who has had gonorrhoea. In these circumstances the urine should be carefully examined for threads. If these are found they should be teased out and stained or sent to a pathologist for examination.

Now that so many patients are being treated by ketogenic diet or by mandelic acid it may be useful to say something about acidity. When a urinary infection is being treated along these lines the urine must be kept acid and the most convenient indicator to use is methyl red. The optimum effect of the treatment is obtained when the acidity is kept at 5.3

or below on the ph. scale. At this point methyl red gives a slightly pink colour to the urine. It is the aim of the treatment to maintain such a degree of acidity that each specimen passed gives a slightly pink colour with the methyl-red indicator. The appearance of a yellow tint on addition of methyl-red to the urine indicates that the urine is too alkaline and consequently the intake of ammonium chloride should be increased.

Albumin:—The most convenient test for albumin is the boiling test which needs no description. It is sufficient to recall that any precipitate on boiling indicates either albumin or phosphates and these are distinguished by the fact that a turbidity due to phosphates disappears with a drop of acetic acid, whereas albumin does not. If the reaction of the original urine was alkaline it should be made acid before boiling or a precipitate of protein may be missed. Slight traces of precipitate are best seen by illumination of the tube with a shaded light, holding it against a black background.

Sugar:—The simplest test for sugar is by Benedict's solution.

To one inch of Benedict's reagent in a test-tube add eight drops of urine and boil for two minutes. If sugar is present, the fluid changes from a clear blue to a turbid yellow or brick-red colour. With only a trace of sugar the fluid merely remains green and turbid. In doubtful case let the tube stand until the deposit has settled down, then hold the tube up and look at it from below. Only when a definite yellowish-red deposit settles down to the bottom is the test for sugar positive.

For practical purposes it may be said that Benedict's solution is only reduced by carbohydrates such as glucose, lactose, and pentose. If there is any doubt as to which of these is present a fermentation test should be carried out, using ordinary baker's yeast. A positive fermentation is given by glucose but not by lactose or pentose. In the majority of cases these tests will decide whether or not glucose is present. Further investigations are only likely to be needed when the Benedict's test is positive and the fermentation test is negative, and in these circumstances the urine should be sent to a clinical pathologist for an opinion.

Ketone or Acetone Bodies:—There are two tests for ketone or acetone bodies in the urine, the nitro-prusside test (Rothern) and the ferric chloride test (Gerhardt). The nitroprusside test is a delicate one and gives a positive reaction in a number of different conditions many of which are of no serious pathological significance. A great advantage of this test, however, is that if it is negative it can be said for certain that ketosis is absent. If the nitroprusside test is positive the ferric chloride test should be carried out and if this is also positive it should be realised at once that the patient may be in a dangerous condition and requires immediate treatment.

To carry out a nitroprusside test take a clean test-tube and shove into it about one inch of the mixed crystals of ammonium sulphate and sodium nitroprusside and then half fill the test-tube with urine. Then add half an inch of liquor ammoniac fortis and mix well by inverting the tube. A purple permanganate colour indicates the presence of acetone bodies. It appears immediately when the test is strongly positive and only after a few minutes with weak reaction.

For the ferric chloride test take one inch of urine in a test-tube and add ferric chloride, 10 per cent., or liquor ferri perchlor., drop by drop until no further precipitate of ferric phosphate is formed. Filter, and to the filtrate add more ferric chloride. A claret red colour indicates acidosis.

A similar colour may be given by substances excreted in the urine after the administration of salicylic acid, aspirin and antipyrin. These false positives may be distinguished by the fact that the colour is still obtained if a previously boiled specimen of urine is tested. Prolonged boiling of the urine greatly reduces and finally causes the disappearance of a positive reaction due to acetone bodies.

Chlorides.—A rough qualitative test for chlorides is easily carried out and may be of value particularly in cases of intestinal obstruction and pneumonia, in both of which conditions the chlorides of the urine are greatly decreased.

To about half a test-tube of urine add a few drops of concentrated nitric acid and then a few drops of 10 per cent

silver nitrate. A similar quantity of normal urine should be treated in the same way as control. When chlorides are present in the normal quantity a heavy cloudy precipitate appears and settles to the bottom of the tube. When the chlorides are diminished or absent the solution will appear very mildly opalescent or clear.

Microscopic Examination

Microscopic examination is necessary to decide whether or not the urine contains blood, pus, casts, crystals or bacteria. The simplest and quickest way of carrying the test is to take a drop of the urine and run it into the chamber of a Feuchs-Rosenthal slide, such as is used for the examination of cerebro-spinal fluid. This differs from the ordinary blood count slide in that it is ruled to enclose sixteen square millimeters and has a depth of one fifth of a millimeter. If a drop of urine be allowed to settle in this it can be examined in a few moments with the microscope and will be seen at once whether or not the urine contains pus, blood, casts or crystals. Advantages of this method are that no centrifuging is necessary, and with a little experience the results of the tests for pus can be expressed in a quantitative way.

Another method of carrying out a microscopic examination is to centrifuge down the urine and place a drop of the deposit on an ordinary slide and cover this with a cover glass and examine with a one-sixth objective. Or if no centrifuge is available the urine may be allowed to stand in a conical vessel for a few hours in a cool place until a deposit has formed. A drop of this is collected in a pipette and examined beneath a cover slip.

It is an easy matter also to carry out simple bacteriological tests. All that is necessary is to take a drop of the deposit and spread this on a clean slide and stain it with Gram or methylene blue or Ziehl-Neelsen's stain. Instructions for this are given in books on clinical pathology.

The Transmission of Specimens to the Laboratory

Before specimens are sent to a laboratory for examination it is often desirable to get in touch with the pathologist and

explain the nature of the case and ask how the specimen should be collected. It is obvious that the general practitioner will get more help by discussing the case with a medical colleague who has specialised in clinical pathology and is practising in his district than by posting pathological specimens to a remote laboratory.

Specimens of urine for bacteriological examination should always be collected in a sterile bottle. It is not always necessary to collect a catheter specimen. For men patients all that is necessary in most cases is to collect a mid-stream specimen direct into the bottle. With care a clean specimen can be obtained also from a woman patient and a preliminary examination of this can be obtained before deciding whether or not catheterisation is necessary.

In conclusion, it is well for the practitioner to recollect that a pathologist cannot be expected to make a diagnosis of a patient's disease by examining a specimen of urine. He can only answer such questions as whether or not the urine is infected or contains some abnormal constituent, such as sugar or cystin. He is more likely to be of practical assistance if he has some knowledge of the nature of the case, and hence a short history of the case will be mutually helpful.

Acute and Chronic Infective Gland Diseases

(From *Medical Digest*, Aug. 1939)

Adenitis, as in the neck, due to dental or other infection, or due to tuberculous invasion often from the tonsil, is a very promising field for X-ray treatment or radium applications. Statistics from many centres show cure-rates of about 80 for tuberculous adenitis after radiotherapy. In this sphere constitutional and radiation treatments have led to such advances, that the frequent recourse to surgical measures practised 20 or 30 years ago is now rarely necessary, and may be limited to aspiration or stab-incisions for drainage. The four or five clinical varieties show a varying measure of response but all may show great benefit from small doses of X-rays; in the fistulous variety cure may be accelerated by supplementary ionisation of the track. There is no contra-indication to X-ray treatment in doses of about a sixth of an erythema (150 r.) repeated weekly, or at longer intervals in slightly larger doses for two or four months or longer if necessary. In some refractory or difficult cases a change of treatment to one giving small stimulating doses to the spleen (as recommended for tuberculosis infections by Manoukhine and others) proved beneficial. The theory of this spleen irradiation is that it stimulates the reticulo-endothelial defence mechanism of the body, also indirectly stimulating the bone-marrow and blood-formation. Much of the experimental work on irradiation and infections has been done by Italian radiologists, who have made great advances in this field, both in theory and practice: they have made good use of their abundant clinical material in infective diseases.

Among infections of glands few respond more promptly than tonsils in childhood. Both tonsils and adenoids are lymphoid structures and highly radio-sensitive. That they would be likely to respond well to X-rays was pointed out over 20 years ago by Regaud. After a few X-ray treatments externally near the angle of the jaw, with mild doses, not sufficient to cause any skin changes, the whole clinical aspect

of children may be altered for the better: mouth breathing stops, digestion is improved and anaemia and chest development change for the better, and the child's mental outlook is greatly improved as also ability for lessons and games. In adults enlarged tonsils often respond well also, specially in this important in the case of singers, whose voice quality or range sometimes has been impaired after tonsillectomy. The only cases that are unlikely to benefit are those hard enlarged glands, which have become fibrous following repeated attacks of tonsillitis, and the shrunken types with septic crypts. The reduction of redundant lymph-tissue in the average case frees the crypts from mechanical blockage and normal crypt drainage is re-established after X-ray treatment. As tonsils occur in all mammals their removal is to be deprecated unless alternative treatment has failed: they form an important part of the immunity mechanism of the body and should be conserved if possible, specially as their removal is not free from risks as is shown by many statistics of operation complications. Their X-ray treatment is one of the mildest imaginable and least risky of all therapeutic measures.

Med. World, L.: 1939, 129.

Insulin Therapy in Non-Diabetic Malnourished Patients

Since Pittfield reported in 1923 that infants suffering from inanition gained in weight and in general health following the injection of insulin, this treatment of malnutrition in non-diabetic patients has been widely used. From the works of Allen, Blotner and others, there seems to be sufficient evidence to justify the conclusion that insulin if injected in 12 to 20 unit dosage subcutaneously brings about improvement in nutrition of adult patients suffering from chronic debilitating diseases or unexplained malnutrition. So far various theories have been postulated to explain this phenomena. It looks likely that the improvement is brought about by direct stimulation of the vagus nerve producing increased motility and more acute subjective sensations of hunger and depression of blood sugar below the normal level, causing prolonged hunger contractions.

J. A. M. A. CXII: 2290; '39.

The Ichthyol Treatment of Furuncles (Boils)

Even when a furuncle has a yellow point it is an error to incise it unnecessarily. A small quantity of ichthyol is placed on the centre of the furuncle and over this a thin sheet of wool which remains undisturbed for two days. If then the crust is carefully pulled off, the necrotic core is generally found hanging on to it. Squeezing the furuncle should be prohibited.

Furuncles on the face and lips that are so much dreaded, because of subsequent disfigurement, when treated in this manner yield good cosmetic results.

Med. World, L: 749, '39.

The Trichinopoly District Medical Association

(REGISTERED)

STATEMENT OF ACCOUNTS

March 1939

RECEIPTS		PAYMENTS	
	Rs. A. P.		Rs. A. P.
Cash in bank	... 285 11 2	Clerk's pay (Feb.)	... 18 0 0
Cash on hand	... 6 2 0	Stationery	... 0 12 0
Advertisement charges.	68 8 0	Office-room rent	... 5 0 0
Members' Subscription.	57 0 0	Postage & Telegrams...	6 4 0
Suspense a/c (I.M.A.)...	6 0 0	Miscellaneous expenses.	2 12 0
Last month's cheque realised	... 3 3 0	Monthly meeting exps.	5 0 0
Bank interest	... 3 10 1	Printing charges	... 34 5 0
		Bank charges	... 0 10 0
		Cash in bank	... 353 13 3
		Cash on hand	... 3 10 0
TOTAL	... 430 2 3	TOTAL	... 430 2 3

April 1939

Cash in bank	... 353 13 3	Clerk's pay (March)	... 18 0 0
Cash on hand	... 3 10 0	Office-room rent	... 5 0 0
Members' Subscription.	33 8 0	Printing charges	... 22 4 0
Advertisement charges.	3 3 0	Postage	... 5 0 0
		Stationery	... 0 6 0
		Baksheesh to National College peons (for Annual Gathering)	... 5 0 0
		Miscellaneous Exps.	... 2 2 0
		Cash in bank	... 333 9 3
		Cash on hand	... 2 13 0
TOTAL	... 394 2 3	TOTAL	... 394 2 3

AUGUST 1939

MISCELLANY

117

May 1939

RECEIPTS		PAYMENTS	
	Rs. A. P.		Rs. A. P.
Cash in bank	... 333 9 3	Clerk's pay (April)	... 18 0 0
Cash on hand	... 2 13 0	Office-room rent	... 5 0 0
Members' Subscription.	70 4 0	Printing charges	... 24 12 0
		Postage	... 4 0 0
		Miscellaneous expenses	4 2 0
		Cash in bank	... 345 13 3
		Cash on hand	... 4 15 0
TOTAL	... 406 10 3	TOTAL	... 406 10 3

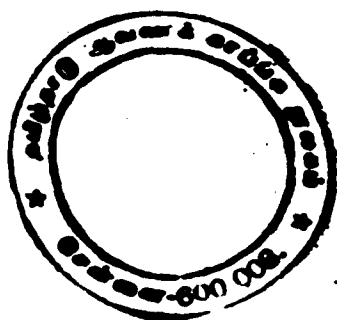
June 1939

Cash in bank	... 345 13 3		Rs. A. P.
Cash on hand	... 4 15 0	Clerk's pay (May)-	... 18 0 0
Members' Subscription including for I.M.A.	91 4 0	Office-room rent	... 5 0 0
		Printing charges	... 21 12 0
		Postage	... 6 0 0
		Kardar meeting expenses	10 0 0
		Miscellaneous expenses	2 2 0
		Stationery	... 0 7 0
		Cash in bank	... 373 9 3
		Cash on hand	... 5 2 0
TOTAL	... 442 0 3	TOTAL	... 442 0 3

JL
Lsm 21192, N35 MS N 89.6-7-9

July 1939

RECEIPTS			PAYMENTS		
	Rs.	A. P.		Rs.	A. P.
Cash in bank	... 373	9 3	Clerk's pay (July)	... 18	0 0
Cash on hand	... 5	2 0	Room rent (June)	... 5	0 0
Members' Subscription.	14	4 0	Printing charges	... 30	8 3
Advertisement charges.	9	0 0	Postage stamps	... 8	0 0
			Miscellaneous expenses	0	2 0
			Cash in bank	... 336	6 9
			Cash on hand	... 3	14 0
TOTAL ... 401 15 3			TOTAL ... 401 15 3		



P. A. S. RAGHAVAN,
Secretary.



CARIPEPTIC LIQUID

Standardized Enzymes of Carica Papaya, with Diastase

Caripeptic Liquid contains in palatable, stable and active form, the proteolytic, amylolytic and rennetic enzymes of Carica Papaya, fortified as to starch digesting power by the addition of diastase. It affords in one prescription a vegetable digestant, *plus* the carminative and psychosecretory factors necessary for the successful treatment.

Caripeptic Liquid is a pronounced carminative. When it is taken after a meal, the immediate subjective effect is a sensation of gastric stimulation; the sense of well-being and comfort spoken of by the pharmacologists in describing carminatives. This carminative is frequently soon succeeded by evidence of active digestive action apparent in subsidence of the feeling of oppression or discomfort occurring in dyspeptic subjects.

Supplied in 8, 16 and 128 ounce bottles.

Manufactured by:

THE UPJOHN COMPANY,
KALAMAZOO, MICHIGAN,
U. S. A.

Sole Agents:

T. M. THAKORE & COMPANY,
43, Churchgate Street, Fort, Bombay.

Branches:

5, Sunkurama Chetty Street, MADRAS.

12, Dalhousie Square, CALCUTTA.

124, Anarkali, LAHORE.

123, Bunder Road, KARACHI.

65, Tachai Mg. Taulay Street, RANGOON.

Rua 31, de Janeiro, NOVA-GOA.

SIROP THIO-CALCIN (Reg.)

A SUPER CALCIUM TONIC & COUGH SPECIFIC

Containing: Pot. Sulpho guaiacolate grs. 20. Assimilable Calcium grs. 30

Orange Juice, Aromatics etc. oz. 1

Dose: 1-2 teaspoonfuls In 6, 16, 64, 128 oz. vials.

WITH VITAMINS A. & D. Vitamin A. ... 25000 I. U.
" D. ... 5000 I. U.
Thio Calcin ... 1 oz.
For Tuberculosis, Osteomalacia, Rickets.

Dose: 1-2 teaspoonfuls. In 6, 16, 128 oz. vials.

EPHEDRINE

Ephedrine Hydrochlor. ... grs. 2.
Thio Calcin ... oz. 1.

For Asthma etc. Dose 1-2 teaspoonfuls. In 2 & 16 oz. vials.

WITH E. M. H.

**THIO
CALCIN**

Ethyl. Morph. Hydrochlor. ... 1/3 gr.
Thio Calcin ... 1 oz.
For all irritant & troublesome hacking Cough.
Dose 1-2 teaspoonfuls. In 2 & 16 oz. vials.

SOLD AT ALL CHEMISTS AND
FROM DADHA & Co., P. M. ZAVERI & Co.,
Madras. Bombay & Calcutta.

For Samples & Literatures apply to:
THIO CALCIN Co.,
16, Venkatesapuram, Mylapore, Madras.



CALCIUM-HELPIN

A combination of Lipoid and Calcium therapy! A quickly assimilated, well-tolerated and painless injection of Calcium Compounds of 9% and Lipoid 10%.

INDICATIONS—

Tuberculosis, Calcium Deficiency, Allergic Disturbances, Scrofulosis, Dermatoses, Spasmophilia, etc.

Boxes of 5 and 10 ampoules.

Manufactured by

CHEMICAL WORKS, GRÜNAU, BERLIN.

Sole Agents for India and Burma:

Ad. Meyer,
11/2, STEPHEN HOUSE,
P. O. BOX 589, CALCUTTA.

Ad. Meyer,
247, ANGAPPA NAICK ST.,
P. O. BOX 1221, MADRAS.

"MERRELL'S"

DISTINCTIVE MEDICAL PREPARATIONS.

ELIXIR ALYCIN

ALYCIN ELIXIR presents Natural Salicylates with a wisely selected alkaline base. Toleration of massive doses of Salicylate is possible with Alycin. Complete Salicylization where necessary may be achieved with minimum side disturbance. In the treatment of Rheumatic and Arthritic conditions, as well as common cold, Influenza, La-grippe etc. Alycin is the Salicylate combination of preference.

A dram of Alycin presents a mixture of Natural Sodium, Calcium, and Magnesium Salicylates and Natural Salicylic Acid (20 grains) in a balanced Alkaline base comprised of Sodium Bicarbonate, Calcium and Magnesium Carbonates (40 grains).

A STRONG DEFENCE AGAINST ACIDITY.

MILK OF MAGNESIA

Doctors are finding that many ailments such as Headaches, dizziness, Biliousness, indigestion are caused by an acid condition in the stomach.

As an antacid and laxative "MERRELL'S MILK OF MAGNESIA" has been recommended by many doctors because of its purity. It promotes digestion, aids elimination, invigorates the intestinal tract.

THE WM. S. MERRELL COMPANY,

(Founded 1828)

CINCINNATI, OHIO, U.S.A.

For particulars apply to:—

CHIMANLAL DESAI & Co.,

P. O. Box No. 1241,
MADRAS.

Head Office:—

Gool Mansion, Homji St.,
FORT, BOMBAY.

To Let

CIROBIL

REGISTERED

The quickest and sure cure for enlargement of Liver and Spleen in Children and Adults.

Definite improvement in 21 days and complete cure in a few weeks.

ISSUED IN TWO SIZES

Procurable everywhere and from the

STOCKISTS:

Messrs. VINAYAGAR MEDICAL HALL,
TRICHINOPOLY.

Messrs. MEDICAL UNION LTD.,
TEPPAKULAM, TRICHINOPOLY.

Sole Proprietors:

DADHA & Co.,

PHARMACEUTICAL CHEMISTS,
PARK TOWN, MADRAS.

Printed by Rev. Fr. A. Susai Regis,
Superintendent, St. Joseph's Industrial School Press, Trichinopoly and published by
Dr. T. N. Subramanian, L.M. & S., China Bazaar Road, Teppakulam, Trichinopoly—1939.

598 THE MISCELLANY

OF



THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION
(REGISTERED)

FOR CIRCULATION AMONGST MEMBERS ONLY.

SEPTEMBER

1939

ADVERTISE in the MISCELLANY

and reach the doctors in the Towns and Villages.

Rates of subscriptions for Advertisers for 1939—

Cover	Full page	Rs. 6 per mensem.
	Half page	Rs. 4 per mensem.
Ordinary	Full page	Rs. 4 per mensem.
"	Half page	Rs. 3 per mensem.

Annual Rates are as follows—

Cover	Full page	Rs. 65/-
	Half page	Rs. 40/-
Ordinary	Full page	Rs. 45/-
"	Half page	Rs. 30/-

We go to press by the 10th of each month for the next month's issue. If no intimation of change of matter or discontinuance of the advertisement is received by that date, it will be concluded that there is no change and the advertisement will be printed as in the previous month's issue.

Please address all business correspondence to:—

TREASURER,

THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION,
Trichy Medical Union Ltd., Teppakulam, Trichinopoly.

No. 9



TO RESTORE
MENTAL & PHYSICAL ENERGY.

TO REVITALIZE
NERVES
BRAIN POWER
BLOOD & MUSCLES

TO PROMOTE
GROWTH & CONVALESCENCE

ALVO-NUVITON

THE NUTRITIVE FOOD FOR ADULTS AND
CHILDREN

ALVO-NUVITON is a novel and ingenious
treatment containing those substances respon-
sible and indispensable for the proper working
of the entire Organism.

ENJOY LIFE

REGAIN VITALITY

ALVO

ECSTASY

FOR WOMEN

FOR MEN

for Reinvigoration of Body and Mind

Regenerates Your Organism
Restores Nerves and Blood
Counteracts Neurasthenia
Removes Symptoms of Premature Decline



Sole Distributor for whole India:

O. S. M. AHAMED MARICAR, Karikal (French India.)

EXTRA MEDICAMENTS!

HIPPOSARCINE ROY Total aseptic muscular extract with Hemoglobin in an agreeable base. Most valuable in the treatment of Anaemias, primary and secondary, following childbirth; debility, convalescence from all infectious diseases; rickets, neurasthenia etc., etc.

CONTRANOPHELE Malaria is the scourge of tropical countries. In the race for finding out a sure treatment for this disease research students of the world have spent their lifetime. **CONTRANOPHELE** now comes as the latest treatment of this disease and is bound to succeed where others have failed. This is the greatest enemy of the anopheles.

UROSALOL These capsules are composed of oil of sandalwood, salol, and hexamethylene-tetramene. They are invaluable as an adjunct in the treatment of gonorrhoea and allied urinary disorders. Their efficacy has been proved by the consistent support given to them by the Medical Profession since their manufacture.

UNITED FRENCH LABORATORIES
POST BOX 88,
MADRAS.
17, SUNKARAMA
CHETTY STREET, MADRAS.

LIVERITES

FOR

Infantile Liver and Spleen Disorders.

It is preferred because:

1. It is both prophylactic and curative,
2. It is both economic and efficacious,
3. It is both appetitive and tonical.

Above all, it is tried and acclaimed as the only remedy by the Medical Men of our country.

What more do you want?

If you want any particulars please write to

LIVERITES COMPANY,

Offices:
Tanuku Triplicane Teppakulam
West Godavari. Madras. Trichinopoly.

Props: D. N. CHAINULU & SONS.

A-O of TUBERCLE BACILLI :.

DISCOVERED BY

Prof. Dr. ARIMA, Dr. K. AOYAMA & Dr. J. OHNAWA

A-O is made from Tubercle Bacilli of the human type. It is sterile, consists of the native protoplasm of the bacilli, is absorbed, is completely innocuous, is derived from strongly immunizing strains of bacilli and has a uniform potency. A. O. is indicated in cases of latent tuberculosis, (apical catarrh), surgical tuberculosis, urogenital tuberculosis, ophthalmological tuberculosis, dermal tuberculosis, pleurisy, peritonitis, in convalescence, disorderly menstruation due to innate weakness, glandular affections, laryngeal and intestinal tuberculosis. A. O. is used for a (1) Therapy, (2) Diagnosis, and (3) Prophylaxis. A. O. is innocuous and has no ill effects.

Prices considerably reduced from 1st May, 1939.

Made by:

THE ARIMA INSTITUTE, OSAKA, JAPAN.

Agents:

T. M. THAKORE & Co., 5, Sunkurama Chetty Street, Madras
Head Office: 43, Church Gate Street, Fort, Bombay.

SULFANIL

B. C. P. W. Brand Tablet of Sulphonamide

(Para-aminobenzenesulphonamide)

Prepared in the Research Department of Bengal Chemical & Pharmaceutical Works, Ltd.

The dependable sulphonamide for successful Anti-Streptococcal Therapy in Puerperal Sepsis, Septicaemia, Erysipelas, Cellulitis, Tonsillitis, Otitis Media, etc.

Also useful in
Meningococcic and Gonococcic Infections.

Available in
Phials of 25 & 50 Tablets. Each Tablet contains $7\frac{1}{2}$ grains.

Bengal Chemical & Pharmaceutical Works Ltd.
CALCUTTA :: BOMBAY

Madras Agents: N. DASAI GOWNDER & Co., 41, Bunder Street

ANTIFLAMIN

FOR

SUSTAINED AND UNIFORM MOIST HEAT

Improves Circulation
Hastens Resolution
Removes Congestion
Relieves Painful Symptoms

Supplied in 5 oz., 11 oz., 17 oz. & 33 oz. Aluminium Pots.

Bengal Chemical & Pharmaceutical Works Ltd.
CALCUTTA — BOMBAY

Madras Agents: N. DASAI GOWNDER & CO., 41, Bunder St., Madras.

HEMOGONON

THE SPECIFIC TREATMENT

FOR

ANÆMIA AND GENERAL DEBILITY

Presented in the form of palatable syrup
in glass bottles of 10 fl. ozs.

FOR INTENSIVE REMINERALISATION

TRY

NOVOCALCINE

A Chemically pure, stable and inalterable compound of Calcium Salts
rendered fully and entirely assimilable

Presented in three forms:—PURE POWDER,
PURE TABLETS &
OPOTHERAPIC DRAGEES.

Can be had from all leading Chemists & Druggists.

For more details please apply to

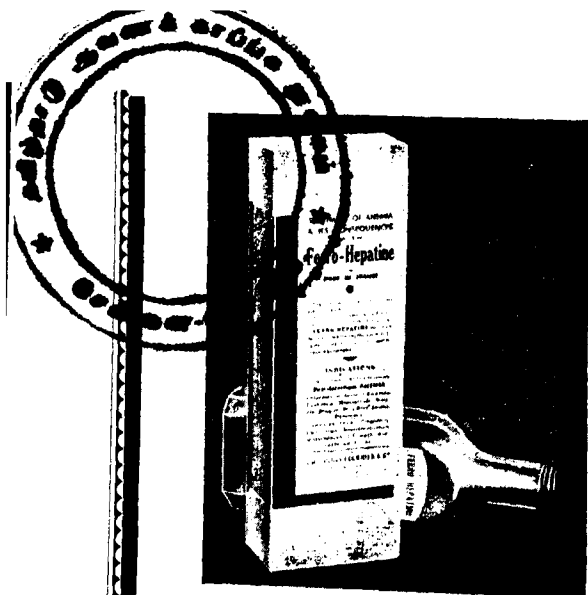
G. LOUCATOS & Co.,

Post Box No. 1273,
MADRAS.

P. O. Box 783,
BOMBAY.

P. B. 2239,
CALCUTTA.

**



FERRO-HEPATINE

Formula :

Concentrated Liver Extract,
Vitamins B & C,
Calcium Phosphate,
Tinct of Strychnos,
Phosphoric Acid,
Iron Salt,
Traces of Copper Nucleinate,
Manganese Salt.

INDICATIONS:—All kinds of Anaemias, Anorexia, Convalescence, Pregnancy, Lactation all conditions inducing demineralization and Deficiency in vitamin B.

A bottle of 250 c.c. will last for 23 days
Price Rs. 3/12/- per bottle.



NEURAGEN

Formula :

Glycerophosphates of Iron,
Sodium, Calcium, Strychnine,
Manganese,
Sodium Calcium formoxil,
Nuts kola extract Fluid,
Waho Ext. Fluid,
Intestinal Ferments,
Papine,
Complete Ext. of Vitamin B,
Vitamin C,
Organic Copper Salt,
Iron Sulfate,
Manganese Sulp.

INDICATIONS:—General Debility, Malnutrition, Nervous exhaustion, Mental and Physical Overwork, Asthenia, Dyspepsia and intestinal disorders.

A bottle of 180 c.c. in concentrated form will last for 24 days.
Price Rs. 2/12/-

The same is available with 5% HEMOGLOBIN
by the name of HEMO-NEURAGEN.

Apply for sample and literatures to—

The Indo-French Pharmaceutical Co.,

1/11-A, Muker Nallamuthu Street, G.T., Madras.

THE MISCELLANY

OF THE

TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION

(REGISTERED)

FOR CIRCULATION AMONGST MEMBERS ONLY

Vol. VI]

SEPTEMBER 1939

[No. 9

Indications and Technique for Blood Transfusion

BY

DR. V. IRAVATHAM,

Diploma in Lab.-Science, The Clinical Laboratory, Trichinopoly

AS soon as research upon the human blood groups had clearly shown how to foretell and avoid the violent reactions following the earliest attempts at transfusion, the therapeutic uses of this procedure steadily extended. At first it was used almost exclusively in severe post-hæmorrhagic anæmia to replace the lost blood. Then it was recognized that transfusion could do more than this; the added blood was found to raise the blood volume, the rate of the blood flow and the blood pressure and to improve the pulse. The immediate increase in the hæmoglobin percentage and red cell count was followed by a further rise reaching a maximum about twenty-four hours after the infusion.

Thenceforward it was soon generally realized that transfusion offered a method not only of immediately replacing deficient or absent elements in the patient's blood but also of reviving his hæmopoietic system.

Indications for Transfusion

1. Post-hæmorrhagic anæmia.
2. Aplasia of the blood forming organs.
3. Pernicious anæmia.

1139.6.7-10

reversing the origin of the two components matched. If again no flaking occurs, the bloods are said to "Cross-match" perfectly and to save repetition it may be said here that the above pair of tests represent the simplest method of "Cross-matching" a precautionary procedure which, when time available, is strongly advised for use before all transfusions, even though the blood grouping of both persons concerned is known. *Grouping and matching with laboratory standards available.* Standard samples of known high-titre grouping sera group II and group III are essential.

Technic of Blood Typing

Caution. Perform a Wassermann, Kahn, or Kline test as a preliminary test on all donors, to exclude syphilis.

Materials needed.—(a) Keep on hand types 2 and 3 serum. Do not use any serum that has not been tested with known Types II and III blood cells at least and preferably with the other two types.

(b) Clean glass slides that are divided into two parts with a wax pencil. The left side is labelled ** II and the right side III.

Sterile droppers, sterile 2.5 per cent sodium citrate sol. test-tubes, etc.

Place 9 c. c. sterile 2.5 per cent sodium citrate in a test-tube. Withdraw one c. c. of blood and mix immediately. Place a large drop of type II serum on the left side of the slide and a similar drop on the right side type III serum. Place a drop of citrated blood from the Ptm. in each drop of serum....With different platinum wires mix the diluted blood with the serum.

Allow at least ten minutes, mixing frequently during this time. Do not report on the results until at least 10 to 15 minutes have elapsed.

Agglutination appears as a brick red separation of the blood into isolated clumps.

Lack of agglutination appears as a homogeneous suspension of red blood corpuscles.

Types are determined in the following ways:

Agglutination with both types II & III serum.

Unknown blood is type I or Universal Recipient.

Agglutination with type III, but not with type II.

Unknown blood is type two.

Agglutination with type II but not with type III.

Unknown blood is type III.

No agglutination with either type II or type III.

Unknown blood is type IV or universal Donor.

Type one can receive blood from all four types, but can give blood to type I only.

Type II can receive blood from types II and IV, but can give blood to types I and II only.

Type III can receive blood from types III and IV, but can give blood to type I and III only.

Type IV can receive blood from IV only, but can give blood to all four types.

Type I about 10% of all adults

Type II „ 40% „ „ „

Type III „ 7% „ „ „

Type IV „ 43% „ „ „

	Serum II	Serum III
Patient is type I if.....	Agglutinated	Agglutinated
Patient is type II if.....	Not Agglutd.	Agglutinated
Patient is type III if.....	Agglutinated	Not Agglutinated
Patient is type IV if.....	Not Agglutd.	Not Agglutinated.

Blood Matching

Place a large drop of recipient's serum on a glass slide. Add a drop of Donor's blood cells. Mix thoroughly. Stir frequently. If no agglutination occurs within 10 to 15 minutes period, the donor's blood may be used for the transfusion.

It is necessary in order to perform blood transfusion to type and cross match the donors and recipient's blood. The typing is performed by manipulating the donors and the recipient's blood corpuscles and serum with known types II and III (Moss) serum. The cross matching is performed by adjusting the donor's cells to the serum of recipient. The latter test is performed for the reason that some time a reaction or agglutination occurs not entirely covered by methods of blood typing.

Laboratory Investigations in Chronic Rheumatism

(From the Practitioner, Sept. 1939)

It is well to bear in mind, however, that other diseases often masquerade as rheumatism and the first duty of the investigator is to unmask them. A not uncommon and very painful intercostal fibrositis for example, graphically named by the Americans the "Devils grip" may closely simulate pleurisy and not a few cases of supposed "Muscular Rheumatism" or Fibrositis prove ultimately to be a case of alcoholic or diabetic neuritis. A joint may be swollen and painful as a result of periosteal sarcoma in the vicinity or it may be swollen and painless as a result of Tabes or syringomyelia. While the clinician will doubtless eliminate many of the masqueraders, the laboratory must assist in dealing with the rest.

Infection:—Although it is still impossible to be absolutely sure on this point, it is probable that infection does play some part in many rheumatic conditions. This is more particularly the case with infective arthritis, usually limited to a small number of joints, but it is doubtful in the case of fibrositis, rheumatoid arthritis, and osteoarthritis.

In most types of rheumatism it is wise to attack any possible foci of infection. The most obvious are the teeth, tonsils or antra. The commonest organism cultivated from any of these infections is a streptococcus usually of the Viridans type, but sometimes also the non-haemolytic. Contrary to the expectation a haemolytic streptococcus is not a common finding. Many writers are sceptical as to the importance of dental sepsis in rheumatism (Vaizey and Clark-Kennedy) Tonsils should probably only be removed if grossly infected. (An acute flare-up of joint troubles following such a removal is a frequent experience).

Blood Sedimentation Rate

Briefly stated, the blood mixed with anticoagulant is set up in a vertical tube. The cells settle down leaving a clear plasma above. The distance from the top of the column the red cells have settled is read off at the end of one hour and two hours. In the case of normal persons this will not have travelled more than two to eight m.m. at the end of the first hour or 8 to 18 m.m. at the end of the second hour.

Although rheumatoid arthritis, infective arthritis and acute gout may cause great increases in the sedimentation rate, muscular rheumatism and fibrositis however crippling, cause no increase in rate whatever. If therefore an increased rate is found in cases suspected of having lumbago only, some other active lesion of another kind remains to be discovered. It should not escape notice that such a lesion may be other than rheumatic, such as tuberculous focus in the chest.

However valuable the test may be in diagnosis it is even more valuable in following the progress of the case.

Other Examinations of the Blood

(a) *Cytological*:—Patients with rheumatism are often pale and it is not uncommon to find a mild degree of anaemia among them. This usually amounts to a value of in the neighbourhood of 75 per cent in the Haldane scale. The anaemia is usually of the secondary type. A mild degree of leucopenia is not uncommon but raised leucocytic count are rare in the absence of complications. It is advisable to carry out a blood count before instituting gold therapy as it is inadvisable to use this in the presence of anaemia and leucopenia.

Chemical Investigations

Blood calcium:—The estimations of the serum calcium in rheumatic cases has so far yielded disappointing results in spite of the extraordinary degree of rarefaction often observed in skiagrams of the bones. The results obtained are nearly normal being usually from 9.5 to 11.0 mgm. per 100 c.c. The best method of estimation are either the Clark-Collip modification of the Karamer-Tisdall method or better still the method

of Roe and Kahn. Estimation of ionized or diffusible calcium would be of great interest.

2. *Inorganic Phosphate*. Estimation of this is simple but uniformly disappointing.

Blood uric acid:—This is usually estimated on the whole blood the best method being the calorimetric one of Folin. The normal values may be taken as 3.0 to 3.8 mgm. per 100 c.c. of blood.

Serological Test

The value of this test is fairly obvious. They are indicated when gummatous synovitis Charcots or Clutton's joints are suspected. Until the various techniques of the Wassermann reaction are better standardized it is possible that Kahn will give better results. Some authorities have even had the courage to abandon the Wassermann reaction in preference to Kahn test.

Sulphanilamide in the Treatment of Acute Mastoiditis

Horan and French (British Medical Journal, November 5, 1938, page 942) writes that since the introduction of routine use of sulphanilamide in all cases of acute otitis media in the Royal Naval Hospital, Chatham, the incidence of mastoiditis has fallen from 22.7 to 4.5 per cent. (The preparation used was Crookes' colsulanyde given orally in doses of 1 drachm every four hours.)

Roentgenological Manifestation in Bone Syphilis

Stewart (American Journal of Roentagenology, 40: 1938: 215) mentions some of the characteristic bone and joint changes found in congenital syphilis. They are epiphysitis, periostitis, epiphyseal separation, circumscribed rarefied osteitis of the long and flat bones, true bowing of the tibia in the lower two-thirds, osteomyelitis, osteochondritis and Parrot's nodes of the first bone. In acquired syphilis the changes found are periostitis, osteitis, arthritis, synovitis, osteochondritis and gumma. These roentgenological manifestations are of extreme help in the diagnosis even in presence of negative serological test and when clinical signs are equivocal or lacking.

The Rational Use of Digitalis

(From J. A. M. A., September, 1939)

Gilchrist (Edinburg Medical Journal, April, 1939, page 233) points out that the main object of prescribing digitalis is to relieve or prevent symptoms of congestive failure in its various types and when such symptoms are absent nothing can be gained by its use. Tachycardia in itself is seldom an indication for digitalis and bradycardia is not necessarily a contra-indication to its use. The pharmacological action and the therapeutic response of the drug should be distinguished as an excellent therapeutic response may be observed on certain occasions without much alteration in the rate of the heart. The maintenance dose of digitalis cannot be effectively regulated by the pulse rate alone and it requires the closest co-operation of the patient who can judge best the response to the drug. Routine treatment with digitalis in tachycardia of pneumonia, hyperthyroidism, shock and collapse and other toxic states is harmful and increases the mortality rate.

Colloidal Aluminium Hydroxide for Peptic Ulcer

Bennet and Gill (Lancet, March 4, 1939, page 500) report on the treatment of 30 cases of gastric, duodenal or anastomotic ulcer ranging in age between 29 and 72 getting marked relief of symptoms with colloidal aluminium hydroxide. It does not produce diarrhoea nor alkalosis which are the two drawbacks of the ordinary alkaline powders taken in these conditions. The author lays great stress on the diet which must not on any account be neglected.

Treatment of Asthma with Intravenous Bacillus Coil Vaccine

A summary of 50 cases treated by intravenous injection of bacillus coil vaccine is given. Majority of the cases thus treated had not responded to any treatment by other methods. The cases treated were all of true paroxysmal asthma and the period of observation ranged between 14 and 30 months. Thirty-nine cases were rendered entirely free from attacks of asthma ever since receiving treatment. Nine cases improved in that the character of attack subsequent to the treatment was of a much milder degree, and in that paroxysms were obviously less frequent in occurrence. Two cases were unaffected by the treatment. Twenty-eight cases were successfully treated with one injection only, and eleven received two injections. The nine cases showing improvement received four injections and the two cases which were uninfluenced by treatment received five injections. In the first decade of life the dosage was 25 million. In adults, 50 million was the first dose, 100 million the second, 250 million the third, and 400 million as subsequent doses. Three cases were under ten years of age, ten were in the second decade of life, eighteen in the third, six in the fourth, nine in the fifth, three in the sixth, and one in the seventh. Twenty-eight cases were male, and twenty-two were female. The duration of asthma was over two years in four cases, four years in two cases, eight years in three cases, nine years in three cases, and over ten years in twenty cases. The frequency of paroxysms varied from three days to three months, but the great majority of our cases suffered from paroxysms at less than monthly intervals. Twenty-eight cases showed other allergic manifestations in the nature of eczema, and sensitivity to feathers, hair dust, pollen, various foods. Eighteen gave a history of allergy in their blood relations. The maximum temperature noted as a result of injection was 104.6 degrees fahrenheit, and the minimum in successful cases was 100.8. The usual temperatures attained varied between 101 and 103.6.

SEPTEMBER 1939

MISCELLANY

131

The injection was usually given early in the morning, the patient being in bed, and not having had solid food since the previous evening. The usual effect of the injection is to cause, within an hour or two, anything from a feeling of intense cold to a marked rigor. The temperature rises abruptly to between 102° and 104° F. according to the dose administered, and the patient subsequently feels hot and feverish. The temperature drops to normal, or nearly normal, within 24 hours, after which a definite secondary rise of temperature occurs, which subsides during the next 24 hours. Occasionally, the primary rise of temperature is smaller than the secondary one. During the period of pyrexia, fluids alone are allowed and the patient is strictly confined to bed. In many cases an asthmatic attack occurred during the period of pyrexia. On two occasions the intensity of the asthma amounted almost to a status asthmaticus, for which adrenaline was necessary. Apart from these two there has been no anxiety during the treatment.

Med. World. L: 842; '39.

The Trichinopoly District Medical Association

(Branch of the Indian Medical Assocn.)

A monthly meeting of the above association was held at 5 P.M. in the Govt. Head Quarters Hospital, Trichinopoly, when about 30 members were present. Lt. Col. N. K. Bal, I.M.S., District Medical Officer, Trichinopoly, presided. Dr. V. Enok, M.B.B.S., L.M., D.G.O., Z.L.O., was at home.

Dr. P. A. S. Raghavan, Z.M.R.E., demonstrated an X Ray film of stricture and diverticulum of oesophagus and explained the various findings under the screen.

Dr. T. V. Srinivasan, M.B.B.S., Honorary Medical Officer, Govt. Hd. Qrs. Hospital, read case notes on a series of enteric cases in the Government Head Quarters Hospital which showed predilection for nervous manifestation as against complications of the heart in the previous epidemic.

Dr. N. C. Subramaniam, M.B.B.S., Honorary Medical Officer, Govt. Head Quarters Hospital, demonstrated four cases of pulmonary tuberculosis, which had four different methods of onset; one started with hæmoptysis, another was in acute secondary anaemia due to hookworm, the third was after a typhoid like fever and the fourth was in the normal way of starting, with low temperature, loss of weight etc.

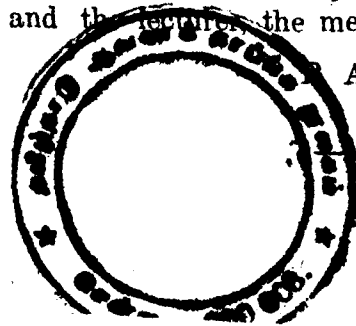
Dr. T. V. S. Shastry, L.M.S., then delivered an interesting lecture on the 'Role of Medical Men in the National Life.' He said, that apart from curing disease, medical men had the duty of instructing laymen in the prevention of disease, and explained how best it could be done by batches of medical men visiting villages and explaining to the people on the sanitary basis of keeping the village and preventing illness. He also stressed on the need of medical men patronising Indian medical products, which in many respects are as good as foreign products and this need was great especially at such time as now, due to war when foreign supplies were scanty and costly.

After the lecture there was an interesting discussion in which many members took part.

With a vote of thanks by the secretary to the President, host, and the lecturer, the meeting terminated at a late hour.

A. S. RAGHAVAN, Z.M.R.E.,

Secretary.



JL
Am 2192, 2000
N39.6.7-9.

WHEN CALCIUM THERAPY IS INDICATED

CALCIUM GLUCONATE

Flavoured Wafers.

Each wafer contains:

Calcium Gluconate ... 15 grs.
Aromatics ... q. s.
Pleasant candy-like wafers particularly adapted for pediatric use and for women during pregnancy.

Dosage:

2 to 5 wafers three times daily according to age.

In bottles of 60 and 500

CALCIUM GLUCONATE

(UPJOHN)

When calcium therapy is indicated the calcium salt of gluconic acid supplies a palatable form of calcium for oral administration and a non-irritating form of calcium for parenteral administration.



CALCIUM GLUCONATE

1. 0 GM. (15½ Grains)
Sterile Solution

Each 10 cc contains:

Calcium Gluconate I, O (15½ grs.) stabilized by the addition of Calcium d-Saccharate 0.1 Gm. (1½ grs.)

Dosage:

For adults, 10 cc (1 Gm. Calcium Gluconate) intravenously or intramuscularly.

For children, 2 cc to 5 cc (0.2 to 0.5 Gm. Calcium Gluconate.)

In boxes of 6 and 12
10 cc size ampoules.

WHEN CALCIUM AND PHOSPHORUS ARE INDICATED

CALCIONATES

An effervescent salt

When one teaspoonful is dissolved in water, Calcionates makes a supersaturated solution of Calcium and phosphate, agreeably acidulous in taste, with better opportunity for absorption and retention than is obtained by other means of administration.

Three teaspoonfuls provide the lime equivalent of 1 pint of average milk plus a liberal supplement of phosphate.

Available in 4 and 8 ounce bottles.

DIOSTATE

Flavoured Lozenges

Their candy-like palatability makes them highly acceptable as a dietary supplement in the management of conditions associated with calcium phosphorus deficiencies or an unusual need for these elements.

Three wafers provide calcium and phosphorus equivalent to that contained in one average quart of milk.

Supplied in ½ lb. bottles.

Manufactured by:

THE UPJOHN COMPANY

KALAMAZOO - MICHIGAN - U.S.A.

Branches:

P. O. Box No. 249
MADRAS

P. O. Box No. 2111
CALCUTTA

P. O. Box No. 134
LAHORE

Sole Agents:

T. M. Thakore & Company

43, Churchgate Street

Fort, BOMBAY

Branches:

P. O. Box No. 114
KARACHI

P. O. Box No. 461
RANGOON

P. O. Box No. 2
NOA-GOA

THE CLINICAL LABORATORY,

10, CHINNA KADAI STREET,
TEPPAKULAM P. O., TRICHINOPOLY.

BIO-CHEMICAL

Glucose	} Tolerance.	Blood Calcium.
Galactose		Van den Bergh's Test.
Levulose		Gel & Chopra Test for K.A.
Blood Urea & Urea Clearance.		Gastric Analysis.

SEROLOGY

Kahn Wassermann Widal

C. S. F. For { Bio-Chemical & Bacteriological } examinations.

Note:— * (1) Kahn Flocculation test done on Mondays, Wednesdays & Fridays.
(2) Wassermann Reaction done on Fridays only.
(3) Widal Reports are given within two hours.

LAB. SET

Outfit with instructions on application.

CONTENTS:

- (1) Two Blood tubes:—For Blood Count only.
- (2) Sterile tube or Capsule for Kahn & Wassermann, Widal, Van den Burgh.
- (3) Oxalated Tubes for Blood Urea, Cholesterol, Creatinin etc.
- (4) Sterile Bottle:—For transmitting Urine.
- (5) For sending Faeces:—For Occult Blood, Bacteriological examination, for Ova etc.
- (6) Small Bottle:—For Sputum.
- (7) Outfit for transmitting blood for Sugar Estimation which contains Oxalate & Sodium fluoride prevents Clotting and Glycolysis.

SIROP THIO-CALCIN (Reg.)

A SUPER CALCIUM TONIC & COUGH SPECIFIC

Containing: Pot. Sulpho guiacolate grs. 20. Assimilable Calcium grs. 30
Orange Juice, Aromatics etc. oz. 1

Dose: 1-2 teaspoonfuls In 6, 16, 64, 128 oz. vials.

WITH
VITAMINS A. & D.
Vitamin A. ... 25000 I. U.
" D. ... 5000 I. U.
Thio Calcin ... 1 oz.
For Tuberculosis, Osteomalacia, Rickets.

Dose: 1-2 teaspoonfuls. In 6, 16, 128 oz. vials.

EPHEDRINE

Ephedrine Hydrochlor. ... grs. 2.
Thio Calcin ... oz. 1.

For Asthma etc. Dose 1-2 teaspoonfuls. In 2 & 16 oz. vials.

WITH E. M. H.

**THIO
CALCIN**

Ethyl. Morph. Hydrochlor. ... 1/3 gr.
Thio Calcin ... 1 oz.

For all irritant & troublesome hacking Cough.
Dose 1-2 teaspoonfuls. In 2 & 16 oz. vials.

SOLD AT ALL CHEMISTS AND
FROM
DADHA & Co., P. M. ZAVERI & Co.,
Madras. Bombay & Calcutta.

For Samples & Literatures apply to:

THIO CALCIN Co.,
16, Venkatesapuram, Mylapore, Madras.



"MERRELL'S"

DISTINCTIVE MEDICAL PREPARATIONS.

ELIXIR ALYCIN

ALYCIN ELIXIR presents Natural Salicylates with a wisely selected alkaline base. Toleration of massive doses of Salicylate is possible with Alycin. Complete Salicylization where necessary may be achieved with minimum side disturbance. In the treatment of Rheumatic and Arthritic conditions, as well as common cold, Influenza, La-grippe etc. Alycin is the Salicylate combination of preference.

A dram of Alycin presents a mixture of Natural Sodium, Calcium, and Magnesium Salicylates and Natural Salicylic Acid (20 grains) in a balanced Alkaline base comprised of Sodium Bicarbonate, Calcium and Magnesium Carbonates (40 grains).

A STRONG DEFENCE AGAINST ACIDITY.

MILK OF MAGNESIA

Doctors are finding that many ailments such as Headaches, dizziness, Biliousness, indigestion are caused by an acid condition in the stomach.

As an antacid and laxative "MERRELL'S MILK OF MAGNESIA" has been recommended by many doctors because of its purity. It promotes digestion, aids elimination, invigorates the intestinal tract.

THE WM. S. MERRELL COMPANY,

(Founded 1828)

CINCINNATI, OHIO, U.S.A.

For particulars apply to:—

CHIMANLAL DESAI & Co.,
P. O. Box No. 1241,
MADRAS.

Head Office:—

Gool Mansion, Homji St.,
FORT, BOMBAY.

EBIOS

GENUINE BREWER'S YEAST

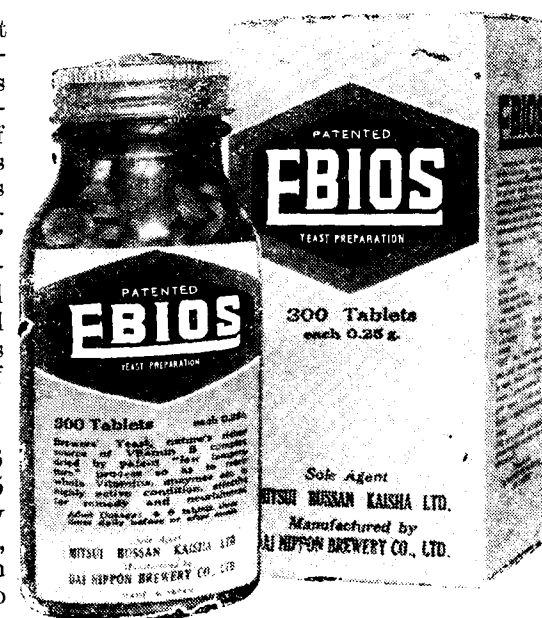
EBIOS is a medicinal yeast preparation made of "Bottom-Fermentation-Brewer's Yeast" at the Dai Nippon Brewery Company.

Yeast has been applied to medicinal purposes from ancient times. While along with the progress in the study of "Vitamins," "Brewer's Yeast" proved to have a high content of Vitamin-B, and has been widely used as a source of Vitamin B recently.

But among the Yeast species "Bottom Fermentation-Brewer's Yeast" is the only one which possesses a high content of Vitamin-B, and EBIOS is made of this "Brewer's Yeast" by a patent process "low temperature" without any marked deterioration in the original activity of Vitamin-B and other active constituents of the Yeast cell itself

Doses:

Generally take 4—6 tablets (powder 1.0—1.15 grams) three times a day before or after meals, but according to condition it may be necessary to take more.



Manufactured by: DAI NIPPON BREWERY CO., LTD.

Available in packings of: Bottles of 300 and 70 tablets.
Bottles of 100 and 25 Grams powder.

Sole Agents: MITSUI BUSSAN KAISHA LTD.,
Madras, Calcutta, Bombay, Rangoon, Karachi.

Sole Sale Agents: For Madras Presidency and States—

THE ORIENT DRUG CO.,

No. 91, Nainiappa Naik Street, P. T., MADRAS.

Stockists: M. AKBAR BROS., TRICHINOPOLY.

CIROBIL

REGISTERED

The quickest and sure cure for enlargement of Liver
and Spleen in Children and Adults.

Definite improvement in 21 days and complete
cure in a few weeks.

ISSUED IN TWO SIZES

Procurable everywhere and from the

STOCKISTS:

Messrs. VINAYAGAR MEDICAL HALL,
TRICHINOPOLY.

Messrs. MEDICAL UNION LTD.,
TEPPAKULAM, TRICHINOPOLY.

Sole Proprietors :

DADHA & Co.,

PHARMACEUTICAL CHEMISTS,
PARK TOWN, MADRAS.

Printed by Rev. Fr. A. Susai Regis,

Superintendent, St. Joseph's Industrial School Press, Trichinopoly and published by
Dr. T. N. Subramanian, L.M. & S., China Bazaar Road, Teppakulam, Trichinopoly—1939.