REGD: NO. 9 M. 429.
Vol XXVII No. 11.

NOV. 1930.

The Antiseptic

A Monthly Medical Journal

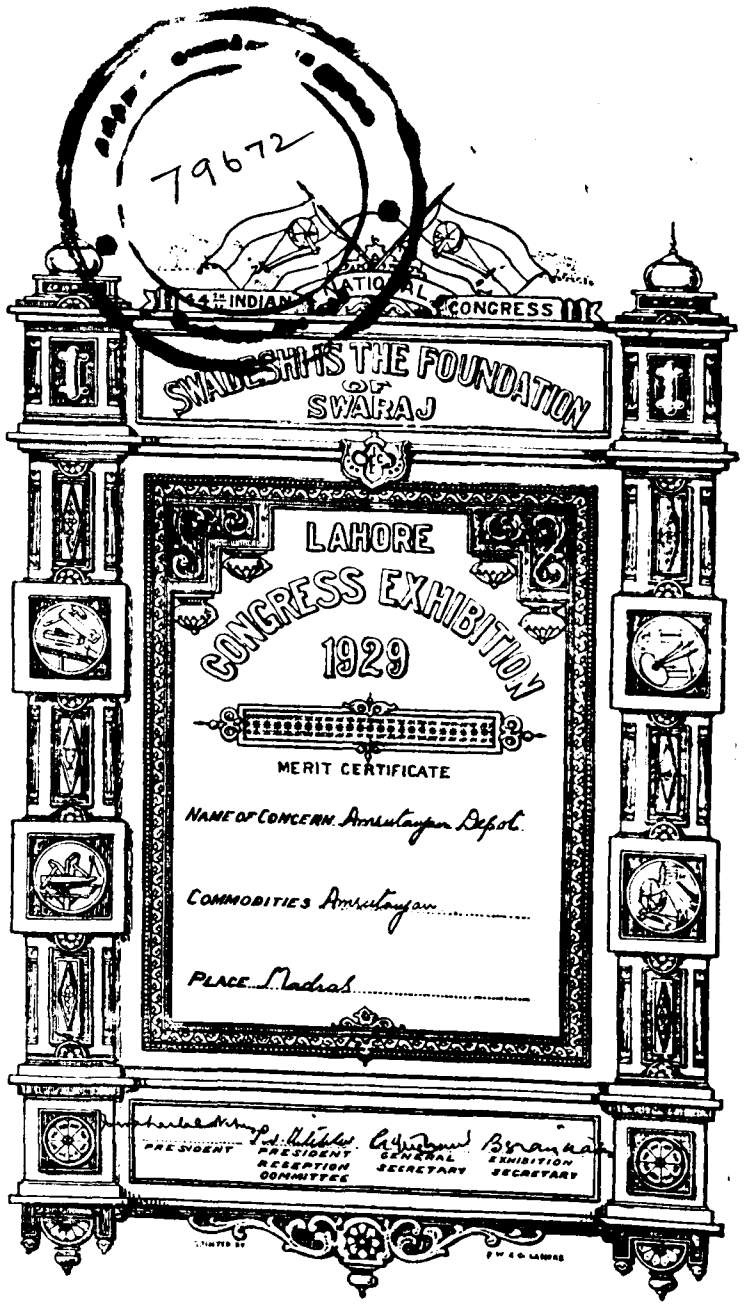
EDITED BY
Dr. U. RAMA RAU
AND
U. KRISHNA RAU M.B., B.S.

CONTENTS

Editorial & Publishing Offices: 323, Thambu Chetty St., G.T., Madras.
Subscription Rs. 5, Foreign 10sh. a year. Post paid. Single Copy As. 12. In advance

Index to Contents-P. 2, Index to advertisements.—see pages, 6 & 8.

Sole Advertising Agents for Europe & America :—Messrs. D. J. KEYMER & Co.
1, 2, 3, White Friar's St., LONDON, E. C. 4.



Index to Contents *(Continued from title page)*

Index to Advertisers.

(Carried over to page 8.)

Index to Advertisers

(Continued from page 6).

When writing to advertisers, please mention "The Antiseptic."

Martin and Harris, Ltd., 15, Sunkurama Chetty St., Madras.

Purity, Activity and Stability

INSULIN 'A.B.'

TRADE A B MARK **Brand**

The world-wide supremacy of Insulin 'A.B.' is due to its unequivocal purity no less than to its well-known potency and stability under all conditions.

Supplied in Two Strengths:

20 units per c.c. Packed in bottles containing:
5 c.c. (100 units or 10 doses)
25 c.c. (500 „ 50 „)

40 units per c.c. Packed in bottles containing:
5 c.c. (200 units or 20 doses)

Full particulars and latest literature will be sent free to members of the Medical Profession.

Joint Licensees and Manufacturers:

Allen & Hanburys Ltd. The British Drug Houses Ltd.
LONDON

Representatives for India:
A. H. P. JENNINGS, Clive Buildings, Calcutta
HENRY S. CLARK, 8/10 Waterloo Street, Calcutta.
BYRAM MISTRY, Graham's Buildings, Parsee Bazar Street, Fort, Bombay

DYSMENORRHEA

IN the absence of mechanical defects, dysmenorrhea is due to disturbance of the endocrine mechanism regulating menstruation—thyroid, pituitary, adrenals and ovary.

HORMOTONE

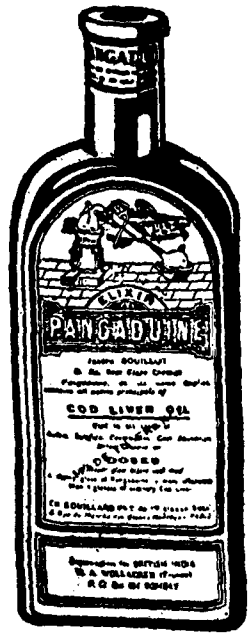
is composed of the active substance of these glands—
—the first successful combination of endocrine glands used in this field.

Bottles of 100 Tablets

On Sale by all the leading Chemists

G. W. CARNRICK CO.
Dependable Gland Products
2-24 Mt. Pleasant Avenue,
Newark, N. J.

[Write for a Clinical Sample]



TRY THEM WITH PANGADUINE

THE ESSENTIAL BASE OF COD LIVER OIL.

By removing from codliver oil the bulk of oil which merely acts as vehicle for the active principles of alkaloids and lecithins, and the essential vitamins, the makers of Pangaduine have presented the maximum nutritive value in the minimum volume. A judicious addition of flavouring makes Pangaduine really pleasant to the palate. The doses of Pangaduine are very much smaller than cod liver oil. This is the ideal prescription for children and those with weak digestions.

For particulars write to:

M. A. WOLLACKER (FRANCE), P. O. Box 832, BOMBAY.

7 Wellesly Place, P.O. Box 2196, CALCUTTA. Hassanalli Building, P.O. Box 248, KARACHI.

Errabalu Chetty St. P.O. Box 100 MADRAS. 58, Cantonment, P.O. Box 93, CAWNPORE

INDIGENOUS MEDICINAL SPECIALITIES OF PROVEN VALUE.

Syrup Thermolysin—The most efficient Specific for Acute & Chronic Malaria, Enlargement of Liver & Spleen etc., Guaranteed cure—Re. 1 per phial.

Bisomak—Sure remedy for Acidity Heart-burn Colic, Gastric Ulcer & Dyspepsia etc., As. 12 per phial.

Iodoline—For all sorts of inflammation & swelling where Iodine is indicated—absolutely stainless and cent per cent absorbed. As, 8 per pot.

Iodoline cum Methyl Salicylas—For aches and pains, Rheumatism, Neuralgia, Sciatica, Swelling of the joints etc. As. 8 per pot.

Rehensal—For ECZEMA, Ringworm, Scabies, Itches and all other Parasitic Skin diseases. As. 5 per pot.

Can be had of all leading Chemists or direct from the

Manufacturers:

THE CLINICAL & PHARMACEUTICAL WORKS LIMITED, COMILLA, BENGAL.

Special rate for Trade and Profession,

Vapo-Cresolene

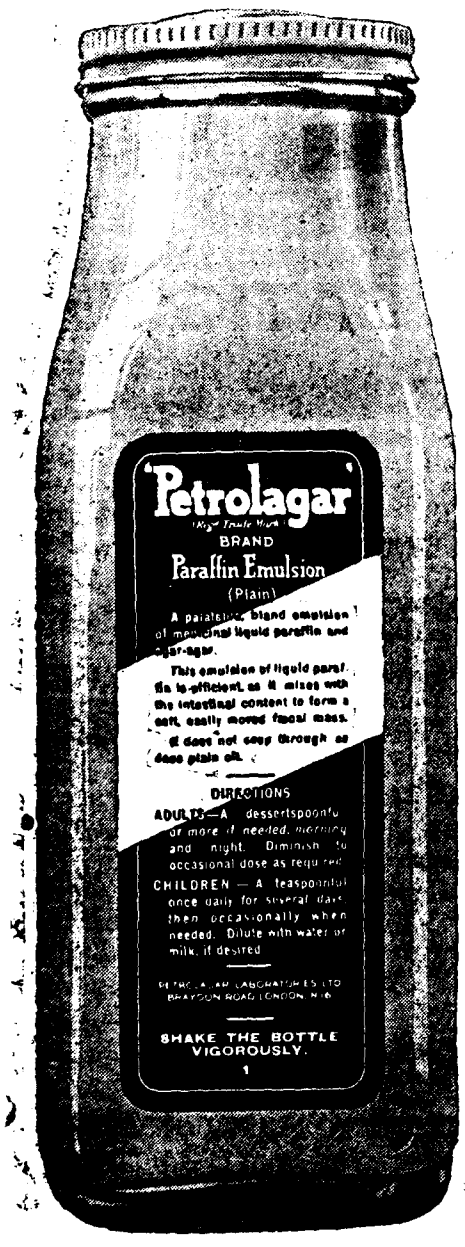
The value of inhalants for the relief of cough is unquestionable. For fifty years, Vapo-Cresolene has been demonstrating its usefulness in this field. These cresols of coal tar, so strongly antiseptic, yet harmless as vaporized, have never ceased to grow in favour as a means of relieving cough and difficult breathing, as in whooping cough, bronchitis, spasmodic croup, bronchial asthma, and in the bronchial complications of measles. Treatment is preferably at night when rest is most desired: The antiseptic vapour is given off all night without attention to the vaporizer, making it unnecessary to disturb the patient.

Stocked by:—

International Trading Co., Bombay.
Dover's Medical Hall, Rangoon, Burma.
Smith, Stanistreet & Co., Ltd., Calcutta.

THE VAPO CRESOLENE Co.
New York. N. Y
U. S. A.

This is new



Exact size of Bottle Opening.

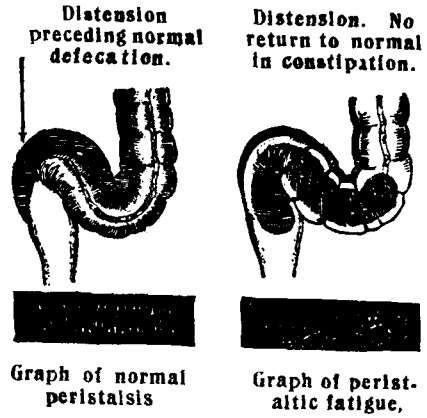
ADMITS A LARGE SPOON

WE are pleased to announce to the Medical Profession that in future the 8 and 16 ounce bottles of 'Petrolagar' Emulsion will have an opening the size of the circle above.

This improvement has been made because so many Doctors suggested that it would be more convenient for their patients if the opening of our bottle would admit a large spoon.

Doctors appreciate that 'Petrolagar' is strictly an ethical product never advertised to the public.

Write for interesting literature to our agents:
Messrs. H. J. Foster & Co. Ltd., P.O. Box 202, Bombay.



Graph of normal peristalsis

Graph of peristaltic fatigue.

PERISTALTIC FATIGUE

It has been scientifically demonstrated that the energy required to propel a pound or more of miscellaneous food components through the twenty or more feet of the intestinal tract, under normal conditions, requires as much real energy as to walk three miles.

In the presence of intestinal pathology the wasted energy is enormous. An over-residuized diet may induce segmental hyperperistalsis or reverse peristalsis, depending upon abnormal physiological or mechanical factors in the colon. This unproductive peristalsis leads ultimately to intestinal invalidism.

Nujol, a pure, natural lubricant, by softening and lubricating the hard faecal masses, facilitates their expulsion, thus minimizing excessive peristalsis.

Viscosity specifications for Nujol were determined only after exhaustive clinical tests in which consistencies tried ranged from a water-like fluid to a jelly. The name "Nujol" is a guarantee to the profession of absolute purity and insures that the viscosity of the liquid petrolatum so labeled is physiologically correct at body temperature and in accord with the opinion of leading medical authorities.

Nujol

TRADE MARK REGISTERED

Nujol Laboratories

2 Park Avenue, New York, U.S.A.

BiSoDoL

For Gastric Hyperacidity

In the treatment of gastro-intestinal illnesses accompanied by hyperacidity, the first precaution that must be taken is that of neutralizing the free hydrochloric acid by means of alkalies, through the administration of an alkalizing agent.

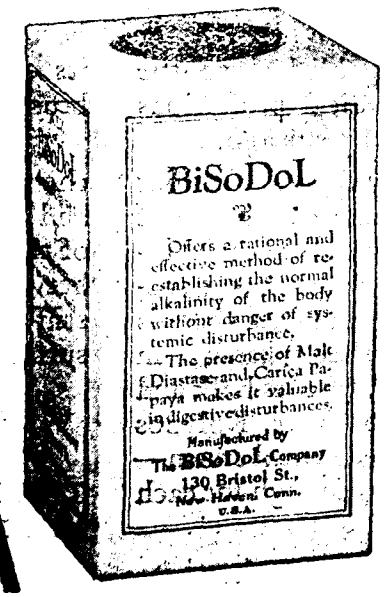
BiSoDoL is a scientific combination of sodium and magnesium bases, strengthened with subnitrate of bismuth, digestives and aromatic essences.

Through its valuable antacid properties BiSoDoL furnishes immediate relief in stubborn cases of GASTRIC HYPERACIDITY, GASTRITIS and GASTRIC ULCERS and also overcomes certain types of NAUSEA and VOMITING. It is particularly effective in VOMITING of PREGNANCY.

The usual dose is a teaspoonful in water after meals as indicated, but this may be modified to suit the requirements of the case.

Solicit samples from our distributor for India, Burma and Ceylon:

Messrs. DAYTON, PRICE & CO., LTD.
P. O. Box No. 773 Bombay No. 1 India



What is the Kolynos Dry-Brush Technique?

WHAT KOLYNOS SAYS TO THE PUBLIC

No. 2BE

"DRY-BRUSH TECHNIQUE"

"KOLYNOS *beautifies and whitens the teeth. One-half inch on a firm, dry brush dissolves the film, washes away fermenting food particles, and destroys the dangerous germs that cause decay.*

"*Try Kolynos and note the difference in the brightness and lustre of your teeth.*"

THE use of Kolynos on a dry brush has been advocated ever since the Kolynos formula was originated by Dr. N. S. Jenkins and published to the dental and medical professions of the world 21 years ago.

Dentists who are familiar with the formula and action of Kolynos know that each ingredient in Kolynos has a specific function—and that there is no water or other substance in Kolynos to increase its bulk and make the tube larger. Kolynos is a concentrated dental cream—one-half inch is enough for each brushing.

Kolynos used on a dry brush without water, mixes readily with the saliva, loosening the bacterial plaque and permitting its dislodgment by the toothbrush.

To wet the brush would cause the bristles to become soft and bend, whereas the bristles of the dry brush not only reach between the teeth but remain stiff enough to brush the tooth surfaces thoroughly.

Distributors: Dayton, Price & Co., Ltd.
P. O. Box No. 773, Bombay 1

THE KOLYNOS COMPANY
NEW HAVEN, CONN. U.S.A

EUBETIN

FOR DIABETES

The new per-orale diabetes therapeutic, in powder form, produced on a scientific basis.

Composition.

2·53 Extract bact. carb. ligu. subt. adsorb., 67·00 Natr. bic., 6·70 Magn. carb., 13·4 Kal. bic., 5·4 Calc. phosph., 2·95 Natr. sulf., 0·82 Kal. sulf., 1·20 Natr. chlor.

Advantages.

(1) No injections required

(2) Easily takeable and perfectly harmless.

(3) Normal diet can be maintained (no special prescriptions.)

(4) Lasting effect.

(5) Improvement in general condition.

Manufactured by: Eubetin G.M.B.H., Hamburg.

Sole Agents for India & Ceylon.

VOLKART BROTHERS

Bombay. Karachi, Madras, Calcutta. Colombo:

Stockists for Bombay Presidency:

P. M. Zaveri & Co., Princess Street, Bombay, 2.

The Antiseptic

ESTD., 1904.

A Monthly Journal of Medicine & Surgery.

Editors: DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

Editorial and Publishing Offices:—323, Thambu Chetty St., Madras.

Annual Subscription Rs. 5. Foreign, 10 Sh. Post Paid.

Vol. 28] NOVEMBER, 1930 [No. 11

Original articles

THE INCIDENCE OF SYPHILIS IN MENTAL CONDITIONS*

BY

DR. FRANK NORONHA, M.B.C.M., D.P.M.

Superintendent, Mental Hospital, Bangalore.

MUCH attention has been directed in recent years to the part played by bodily diseases in the production of mental symptoms and the investigation of the bodily state is therefore a preliminary necessity in the examination of a mental patient. An investigation into the physiological state might reveal some of the secrets of mental illness. In fact, much of the progress in our knowledge of mental disorders has been in the direction of finding a physical basis for mental symptoms, and the mos tnotable advance along this line was the discovery that General Paralysis of the Insane is the direct result of syphilitic infection.

Syphilis, as a contributory factor in the production of mental disease, is of special interest at the present day in view of the fact that the control of venereal diseases is in the forefront of all public health activities, and to the extent that syphilis could be

* Paper read before the Mysore Medical Association on 4th September 1930 and sent to the Antiseptic for publication.

latent syphilis but the rapid response to antisyphilitic treatment indicates a causal relationship between the two diseases.

If early mental symptoms of cerebral syphilis are detected and early treatment is started, it may keep to ward off permanent mental and physical deterioration. "In the early stages of cerebral syphilis, the finer characteristics of a man's personality may fail and he becomes neglectful of his personal appearance, careless in his manners and unmindful of ordinary decency. This onset of failing inhibition may lead him to alcoholic and sexual indulgence."

Those who are in close association with the person affected, may be better able to notice these changes than a medical man who may casually see the patient or who may not be consulted at all, at this stage. The early signs of cerebral syphilis may also show themselves in a depressed mood.

It is said that depression or underactivity is more common as an early sign than excitement or overactivity. But the figures in this series prove otherwise. It is probable that depressed cases are rarely brought to the hospital, as they are harmless to others. The depression may be of a mild nature with no delusions and sometimes takes on a hypochandrical turn.

It is likely that the initial depression or excitement may disappear without any treatment whatsoever as the tendency to remissions in syphilitic manifestations is well known.

The effect of antisyphilitic treatment was most noticeable among cases of mental excitement and as already stated the improvement in the mental condition manifested itself soon after the commencement of the treatment. Now what is the nature of the process in these cases of excitement?

Excitement implies lowering of the cortical inhibition and it may be that the spirochætes or their toxins cause an irritation of the meninges or the cortical surface, sufficient to lower inhibition but not sufficient to cause physical signs of meningites or encephalites. The quick response to salvarsan seems to support this view, as it is well known that when the neurones are attacked the disease becomes intractable.

In those cases that displayed Schizoid behaviour, antisyphilitic treatment was not effective, in improving the mental condition and syphilitic infection might have been only incidental and had not anything to do with the onset of the Schizophrenic condition.

The question naturally arises why in the patients affected with syphilis, the mental disorder assumes different forms such as excitement in some, depression in others and paralytic type in some others.

In this study attention is directed to one aspect of the case, viz that the person suffering from mental disorder has contracted syphilis. In physiological disorders, it is not the morbid agent and the particular organ involved but the relative effect on the whole organism that has to be considered. In mental disorders this physiological relativity is made more complex by the intervention of other factors viz those relating to the social condition, education, domestic influences and the sexual life of the individual, in addition to the hereditary predisposition. The behaviour of a psychotic patient is therefore determined to a great extent by his "immediate and remote part, by the social medium in which his lot is cast and which has perhaps been inimical to him and by the experiences which have moulded his life perhaps from infancy" Thus many influences account for a particular type of psychosis. But if a single pathogenic agent could be shown to be common to a group of cases, and especially if the treatment directed against this particular factor brings about an improvement in the mental condition a definite advance may be said to have been made in the treatment of such cases.

TO SUMMARISE:

1. Syphilis plays, not an inconsiderable part in the production of mental disorders.
2. Nearly 33 percent of mental patients give evidence of syphilitic infection.
3. Antisyphilitic treatment in the early stages relieves many of those patients of their mental trouble.
4. Neurosyphilis is not necessarily a late manifestation, and mental disturbance may precede definite organic lesions.

The antisyphilitic remedies that were used were, neosalvarsan, sulfarsenol, Bismuthiodide, in addition to the oral administration of mercury and potassium iodide.

REFERENCES

1. Recent advances in Psychiatry.....Devine.
2. Early mental disease (Lancet).
3. Contribution to Psychiatry, neurology, sociology.....J. R. Lord.

QUININE HYDROCHLORSULPH IN MALARIA*

BY

DR. SHAPURJI ARDESHIR BANKER M.D., *Bombay.*

THE drug which is specific in Malaria is Quinine, given as Quinine sulphate, bisulphate, hydrochloride or acid hydrochloride. All these preparations of Quinine are effective in various forms of Malaria in properly regulated doses and in proportion to their solubilities, the acid hydrochlor being most readily absorbable.

But in cases of pernicious malaria where there is incessant vomiting, none of these useful salts of Quinine can be retained by the stomach and even sips of plain water cause retching and vomiting. There are other types of malaria in which after taking Quinine for a long time, the patient becomes subject to tinnitus, deafness, headache, fine tremors in the muscles of the body amounting to shivering, which is not due to malaria, and where Quinine is still required to be taken, I have found Quinine hydrochlorsulph of immense benefit.

In cases of bilious remittent fever where there is bilious vomiting, patient jaundiced, fine tremors in the body, and when the patient is exhausted with retching and vomiting when no medicine can be retained by the mouth—which seems to aggravate instead of lessening the retching and vomiting—when plain water even brings on retching and vomiting and where Quinine injections are needed I have found Quinine Hydrochlorsulph by mouth, stop the vomiting, bring down the fever, lessen the icterus and make the person after a few doses quite a changed being; from a sallow sunken face, the patient gets some healthy colour on his face and begins to retain milk and other liquid diet. I believe the drug establishes a chemico-physical balance, at the same time it seems to be superior to other Quinine preparations in destroying the malarial parasites.

In spite of 8 grain doses every 4 hours of Quinine acid hydrochloride the temperature if once it has gone up to 104°F or 105°F either remains steady at that point or goes half a degree higher and only an intramuscular injection of Quinine will lower the temperature a degree or two, but with Quinine Hydrochlorsulph 3 to 5 grains by mouth the temperature begins to fall within a few hours and becomes normal within twelve hours, and it might be required to be taken for a day or two more and then continuously for a week or more in smaller doses or other preparations of Quinine be then safely substituted without fear of bringing on retching or vomiting. The reason for the substitution of Quinine

*Specially contributed to the Antiseptic.

hydrochlorsulph by generally used salts of Quinine is that in spite of its many advantages there is a drawback which I shall describe later on. Quinine Hydrochlorsulph can be administered as seen from the above description in cases of pernicious Malaria, in cases resistant to ordinary and generally used salts of Quinine, in cases of idiosyncracy to Quinine, in Quinism where no longer any more ordinary salts of Quinine can be borne, in bilious remittent fever, in malarial fever with fine muscular tremors in the body, after taking Quinine for a long time, which is a pre-haemoglobinuric manifestation, and in any type of malarial fever resistant to generally used preparations of Quinine.

My attention was first drawn a few years back to this preparation of Quinine in Tropical diseases Bulletin where a medical officer in South Africa recommended it as an injection in Haemoglobinuric Fever and he had used it he said with success. Now it has often been noted that Haemoglobinuria is precipitated in cases of long continued malarial fever where Quinine in irregular doses has been given for a long period of one or two years. The patient is cachectic and suffers from marked secondary anaemia, when during one of these attacks of fever, if Quinine is given by mouth or an intramuscular injection of Quinine is given, Haemoglobinuria is precipitated; so it was news to me that intramuscular injection of Quinine Hydrochlorsulph was used to cure Haemoglobinuria; but our experience with injections of Quinine in Haemoglobinuria and in prehaemoglobinuria was so adverse that I did not think of utilising Quinine Hydrochlorsulph in Malaria till about two years back, when a lady who was suffering from frequent attacks of malignant malaria for a long time and who took Quinine irregularly fell victim to an attack of bilious type of pernicious malaria, with incessant vomiting, wavering of mind, pain at the pit of the stomach and in the hypogastrium and fine muscular tremors of the body intensified by each dose of Quinine Hydrochlor, icterus, and all the signs which made me fear an attack of Haemoglobinuria to be precipitated on giving an injection of Quinine. I thought to myself at this stage that if Quinine Hydrochlorsulph by injection was of value in Haemoglobinuria, why should it not be of use in malarial fever of pernicious type which had reached prehaemoglobinuric stage. Thus I thought of trying Quinine Hydrochlorsulph by mouth before resorting to injection of Quinine. The drug is hardly ever used and is not mentioned in such an exhaustive book as Martindale's Extra pharmacopoeia and chemists and druggists were surprised and would not believe a drug like Quinine Hydrochlorsulph existed. Fortunately one good firm in Bombay supplied it, which I gave to my patient and from the time of taking the drug she was

a changed person. Vomiting ceased, the pallor of the face improved, she took good coffee and milk when previously it was difficult for even water to be retained. The fever began to come down and since taking the drug she had no more relapses. The drug acts like magic in controlling Malarial fever and relapses.

I think if Quinine Hydrochlorsulph were judiciously used Malarial Fever could be controlled in a shorter period and relapses would be uncommon, and as there would be no relapses continuing for a period of a year or two there would be no secondary anaemia, no enlarged spleen, and no Haemoglobinuria.

I am thoroughly satisfied with this drug both in adults and in children, the latter bearing it very well.

Even after the first dose a boy aged 6 years with a temperature of 104° who was restless, wavering in mind and tossing about in bed fell to sleep within half an hour and next morning the temperature came down to 99° F and within three days he was rid of the fever. There were two or three recurrences of fever when the Quinine Hydrochlorsulph was withheld, but after administration of the same the fever entirely left him.

Quinine is a specific for Malaria but I consider Quinine Hydrochlorsulph a super-specific and its judicious administration will do away totally with the mortality from Malarial Fever and the shattering of health caused thereby. I have shown the preponderating advantages of Quinine Hpdrochlorsulph and now I shall mention a few drawbacks and precautions to be taken while administering the drug to avoid a few ill-effects. "Quinine Hydrochlorsulphate (quinine sulphochlorid) containing 74% of quinine, occurs in fine white needles, soluble in an equal amount of water and in alcohol. Dose 1 to 30 grains. Suitable for hypodermic use" (Sajous). I have found five grains to be the maximum and with reasonable care a sufficiently safe dose, 2 to 3 grains a medium dose given three times a day. The ill-effects which I have noted are that the patient complains of dizziness, it accelerates the pulse, acts as a cardiac depressant and lowers blood pressure. For this reason I always give alternately with this salt of quinine a mixture containing coffeine citrate grs. 3 potassium Citrate grs. 15 Spt. Ammoni Aromat Ms. 15. Tinct Digitalis Ms. 5, Aqua 1 oz. This mixture relieves the faintness and ill effects due to the depressant action of Quinine Hydrochlorsulph. After the fever has left the patient, the drug may be continued in smaller doses with the stimulant line of treatment, and then to prevent the relapses, Quinine Hydrochlor may be given; and in spite of this if the fever comes on again Quinine Hydrochlorsulph may be given again. Thus relapses may be prevented.

Adrenalin chloride solution (lin 1000) 15 drops may be given twice a day besides the stimulant mixture. If it had not been for this depressant action Quinine Hydrochlorsulph would be an ideal and only salt of Quinine which could be given in the treatment of Malaria with immense benefit. Besides Malaria, with the same safeguard I found it of value in Influenza, Broncho-Pneumonia. in fever of pyelitic and cystitic, and it may be found of value in yellow fever, kala Azar and other bacterial and protozoal infections.

I have not found it of any value in Enteric fever. In Bombay Haemoglobinuria is uncommon, but when a drug is found so safe in prehaemoglobinuric stage it stands to reason that with alkaline line of treatment, saline solutions per rectum or by hypodermoclysis and injections of coffeine, Quinine Hydrochlorsulph would check haemoglobinuria more readily than before. I have noted that blood pressure is much lowered in Malignant Malaria within a couple of days of raised temperature, than a fortnight of fever in Typhoid Fever; hence one has to be careful in administering Quinine Hydrochlorsulph in maximum doses and for a long period as is done with other salts of Quinine without fear of much cardiac depression. Children bear the drug well but old people and those in whom the Myocardium is affected by age or disease, much caution is needed. For this reason though Quinine Hydrochlorsulph is an effective curative remedy it cannot be used safely as a prophylactic, for which Quinine acid hydrochlor should be used.

By the use of Quinine hydrochlorsulph as sterilisation of blood, the Malarial parasites would be readily affected, the enlarged spleen, malarial cachexia and haemoglobinuria would be entirely done away with, and as the human host will be freed from the continued infection with malarial parasites, the infection of the anophelene mosquitoes will be proportionately diminished in the long run. I have optimistically considered the situation but in the end this will be realised to a great extent, when this drug is given a trial on an extensive scale throughout India and other tropical places.

THE VALUE OF KURCHI AS AN ANTI AMŒBICIDAL THERAPEUTIC AGENT

BY

DR. V. ESWARIAH B.A. M.B., B.S.

Dept. of Pharmacology, School of Tropical Medicine, Calcutta.

THE value of Kurchi or Hollarrhena antidysenterica as a cure for dysentery was known to the indigenous system of medicine since long. Kanni Lal Dey in 1896 was so struck with its therapeutic value that he advocated its inclusion in the British Pharmacopoeia. In 1928 R. Knowles reported very favourably on the value of the tabloids of Extracts of Kurchi bark in the treatment of Amoebic dysentery. Since then the drug has taken rapid strides in the varied aspects in which it has been studied and has been adopted for therapeutic application in the Tropics. The failure of Emetine to cure certain cases of chronic amoebiasis and even some forms of acute conditions led to the investigation of this alkaloid and Kurchi to-day promises to overcome some of the difficulties associated with the treatment of dysentery with Emetine.

The plant is fabled to have sprung from the drops of Amritor or water of life which fell on the ground from the bodies of the monkeys of Rama, which were restored to life by the God Indra. It is fairly widely spread throughout India—abundant in the Himalayan region as is the case with most other medicinal plants, and to a less extent in Travancore in South India. The plant belongs to the N. O. Apocyanaceae to which belong most plants of the Digitalis group. It is a small deciduous tree with white flowers often confused with a similar plant by name Wrightia Tinctoria. From the leaves of Holarrhena antidysenterica a kind of indigo dye is extracted. The wood is soft and white, used for carvings and for making furniture. The seeds are said to have astringent febrifuge, and anthelmintic properties while the bark is considered a powerful antidysenteric remedy. The late Dr. Koman of Madras who some years ago was commissioned to investigate into the therapeutic value of some of the South Indian drugs reported very favourably on Holarrhena antidysenterica. The plant has since been introduced into Western medicine, and was first used in the form of an infusion of the root bark. This preparation is very bitter and unpleasant to take. Burroughs Wellcome & Co. have prepared tabloids made from the bark which is more easily taken. The treatment with Kurchi was originally started as an accessory to Emetine treatment for dysentery. Today it promises to replace Emetine as an antiamoebicidal remedy for therapeutic and economic reasons.

* Specially contributed to the Antiseptic.

Pharmacology of the Bark. There was some confusion originally about the identity of the alkaloids isolated. Recently the Dept. of Chemistry of the School of Tropical Medicine isolated three separate alkaloids. The Pharmacological work in connection with the alkaloids was done with conessine at first, but lately the total alkaloids of the Kurchi bark as obtained in nature have been studied in the Dept. of Pharmacology of the School of Tropical Medicine. The clue to this line of work was probably given by the use of Cinchona Febrifuge where the total alkaloids of Cinchona are found to give better results than Quinine or other individual alkaloids.

In animal experiments the total alkaloids gave a fall in blood pressure, but perfusion of the isolated heart or myocadiograph tracings failed to show any direct action on the heart. The fall in blood pressure, is most probably due to stagnation of blood somewhere. The volumes of various organs when observed showed increase after the administration of the alkaloids. With the rise in the intestinal volume there was a temporary cessation of the movements of the intestine. The alkaloids were found to have no action on the uterus in concentration in which they circulate in the body in human beings. Intramuscular injection showed no sign of bruising or haemorrhage as is seen with emetine, or necrosis as with quinine though there was slight oedema in experimental animals. The action of the total alkaloids on the Respiratory and nervous systems has not been worked out in detail so far though clinically it has been observed that there were no adverse symptoms.

Failure of Treatment in some cases of dysentery. When the action of the salts of one of the alkaloids on protozool organisms was first studied it was shown that compared with emetine conessine—the important alkaloid of Kurchi—was lethal to protozool organisms in higher dilution. In connection with this work it was observed that in the presence of alkali, the alkaloids of Kurchi were far more active against the protozool organisms than without the alkali. This was in keeping with the original observation of Action in 1921 that the ph (acidity) of the solute had an important bearing on the action of the cinchona alkaloids on Paramecinm cavdaxum which later led to the effective alkali treatment of malaria with quinine (Sintons treatment). Acton about the same time also noticed that Emetine like quinine was ten times more powerful in its action in an alkaline substrate of a p h of 8 than in an acid one of p h 6. This is an important finding in view of the observation that in some cases of chronic dysentery the stools are markedly acid which may explain the resistance of the causal organisms to the alkaloids. It was

shown that the acidity of the stools in cases of dysentery are due mostly to certain other organisms-streptococcal, staphylococcal, Bacillary in other (B. Flexner, B. Lactis aerogenes and B. coli). Lastly) and a preliminary course of autogenous vaccine was necessary in these cases. But autogenous vaccine treatment is not very practical in all cases of resistant dysentery. Hence a method of making the alkaloids act better in spite of the acid stools had to be devised or render the stools alkaline by other ways than autovaccine to enable the alkaloids to act better.

Treatment of Amoebiasis with Kurchi. As pointed out already the total alkaloids of Kurchi were found to be as effective against amoebia as the alkaloid conessine alone, with the added advantage of causing less prominent adverse side effects. The total alkaloids could be administered by mouth in the form of an extract in SS oz doses B. D. They can also be given by mouth in the form of tabloids but the popular and easy method of administering is by intramuscular injection gr. 1 on six consecutive days (very much like Emetine HCL) and if necessary after three days interval two or three more gr. 1 injection on consecutive days. Provided there is no coexisting bacillary infection in a serious form the patient responds to this treatment readily and microscopic examination of stools fails to show the entamobae histolytica. In a pure entamoeba histolytica affection alkali treatment is not often so necessary. Though comparative statistical figures of the treatment of dysentery with Emetine and Kurchi are not available the general opinion of clinicians who had used both is in favour of Kurchi.

In chronic cases of amoebiasis where the stools show cyst forms of the entamoeba histolytica in addition perhaps to the vegetative forms, Kurchi again seems to have a favourable report for itself. Such of those cases that were treated here were those that had resisted emetine treatment alone or in combination with stovarsol, Yatren, Rivanol, bael fruit, plantago ovata etc. These are the cases as some one said whom the "general practitioner recommends to go for a change of climate as a last resort for the mutual benefit of himself and his patient." These cases invariably showed on plating the stool numerous fine streptococcal colonies and sometimes bacillary infection. These organisms render the intestinal content acid (in which medium the alkaloids are not able to act.) In such a case though the symptoms of dysentery are not serious the condition is protracted in a milder form. The treatment in such cases is either to get rid of the organisms or to change the conditions of the alkaloids to act better. This could be done by administering large doses of alkalies i.e. (1 dr. -1½ dr.) of Bismuth carbonas and soda bicarb by mouth every four hours but as observed these alkalies have very mild effect in reducing

the acidity in the large gut. Immunisation with autovaccine for three weeks relieves the acidity of the tissues and intestinal contents to a very great extent but it takes six weeks almost to effect a cure according to this method. The third method is to give the drug in large doses in order to attain a sufficiently high concentration for it to be able to be effective even in an acid substrate.

Treatment with antiamoebicidal measures in the presence of other organisms even if it is rendered effective is on the assumption that the other organisms are not pathogenic or at most mildly so. One can't dogmatise on this point but Kurchi is probably capable of acting even in spite of the other organisms unlike emetine for the following reasons. 1. Kurchi alkaloids in higher dilution than emetine have lethal effect on cultures of entamobae histolytica. 2. The low toxity of the Kurchi alkaloid is evidenced by the following rendering it possible of administration in bigger doses. 3. The total alkaloids of Kurchi bark had no emetic or irritant action on the gut. 4. The alkaloids do not depress the heart as the Ipecacuanha alkaloids. 5 Injections of the alkaloids are less painful and inflammatory than emetine.

Results of treatment of chronic cases with Emetine were compared with Kurchi alkaloid and autovaccine and also with plain oral Kurchi Bismuth Iodide treatment. (By the way Kurchi Bismuth Iodide is a compound corresponding to emetine Bismuth Iodide and was prepared by some of the Calcutta companies on the suggestion of Col. R. N. Chopra. It is insoluble until it came to the large intestine and by increasing the dose a greater concentration of these alkaloids could be attained sufficient to overcome the hindering action of the acidity of the large intestine. Kurchi Bismuth Iodide is given in doses of gr. 111—1v B. D. for about ten days. In certain resistant forms the dosage was increased to even gr. 10 B. D. but it is not advisable in all cases. The results so far have not been a cent per cent success but any day superior to Emetine treatment. In cases that are not amenable to this treatment the cause may be traced to the coccal and bacterial organisms gaining some amount of virulence and rendering the amoebic ulcers resistant to the healing process.

The use of Kurchi alkaloids is not as yet completely elucidated, but it seems that the combined treatment-injection and oral administration-is better than either. The combined treatment with the Kurchi alkaloids has been observed to cure non suppurative hepatitis though their action on the suppurative amoebic hepatitis has still to be investigated.

I would like to mention in concluding that these alkaloids are indigenous to India, and are obtained cheap from their manu-

facturers Bengal Chemical & Pharmaceutical Works, Union Drug Co., and Smith Stanistreet. The drug deserves the patronage of the medical practitioners in India.

OUR PRESENT POSITION IN THE TREATMENT OF BURNS

BY

DR. RAMESHWAR PRASADA SAXENA,

Medical Officer, Katra Gulab Singh Dispensary, Prayag (U. P.)

MUCH as we have seen in our general practice and in surgical wards, much as we have heard from our seniors and also read in books and journals about the treatment of burns there are indeed only a few things left, which I can bring before the profession from my own experience as new. Though the treatment of burns has been marked by numerous changes of medicaments during the recent years, more especially as the result of the experience in the Great European War and though *per se* the subject looks so very easy, one who practises it (at least in a mofussil dispensary, where the stock of medicines generally remains so very poor) knows fully at his cost, what a difficult task it is to treat this malady in its various disguises, as burns differ widely in degree, character of tissue destruction, bacterial content and progress of healing. No one procedure as a local measure, will therefore prove equally valuable for all cases of all stages. In this short article I shall not discuss the various stages and symptoms etc of burns as they are too well known to all of us. I shall limit myself, according to the heading of this article to treatments only.

The indications for treatment in the case of burns are generally two, namely (1) to treat the local condition according to the part of the body, of the structure of the tissues implicated, and (2) to arrange a general treatment.

I. In *Superficial Scorches*, without any vesication, the affected parts should be protected by dusting them over with Boric acid powder mixed with starch or by painting them with Collodion or by dusting the following powder: Bismuth Subnitras 1 part and Kaolin 2 parts. This is very drying and absorbent and is highly recommended by Dr. Renner. If there are blisters, they should not be interfered with at the first dressing, but should simply be washed with some antiseptic lotion, e.g. normal Saline or chinosol and on the subsequent dressing they should be snipped away (not cut, as they serve as protectives and the contained bacterial serum should be allowed to escape. Now after giving them a second

*Specially contributed to the silver jubilee issue (April 1929) of the Antiseptic.

antiseptic washing, a Picric acid dressing should be applied. The following is a good combination :—

℞

Acid Picric	37½ grs.
Aqua Distill	8 ounces.

A piece of gauze, somewhat larger than the burnt area and dipped in the above lotion should be applied on the affected area, and constantly saturated with the above lotion. Finally the part should be covered with absorbent cotton and bandaged. This will relieve pain and promote healing. The dressing should be renewed daily.

In *deep burns*, the patient is generally found in the condition of shock. Our first and foremost duty should be to treat it first, and then the affected area. When treating shock, the burnt area, for the time being should be covered with a piece of gauze soaked in picric acid solution or in a 2% aluminium acetate solution, or aseptic oily preparation may be applied if the burnt area is large enough. When the shock is over, or has become less severe, the clothes should be taken rather cut away or soaked off in a bath; possibly in the case of children, it may be necessary to immerse them completely in a saline bath and keep them there for a time. Sometimes one gets a very dirty case for treatment, and in such cases it is better to anæsthetize the patient and cut away parts which must obviously slough. The wound should then be thoroughly purified and antiseptic dressing applied. Hopelessly charred limbs should be amputated. Generally, as a rule, our main aim is to assist the sloughing process and to protect the sufferer from Septic absorption and infection. This can best be fulfilled by keeping the part in a bath of hypertonic Saline lotion or under a saline lotion, or under a spray of the same solution (5%), but if it is impossible to do this, antiseptic dressings with abundant hypertonic Saline to the part may be applied. The importance of gentle handling of the parts must also not be ignored, and the dressing must never be allowed to stick, as their removal then involves the tearing away of valuable reparative material, causing much bleeding and pain. This injunction should always be remembered in treating severe burns more especially that of the face. Sometimes the injury to the face is so severe that no dressing is applied beyond a single protective layer of gauze to keep away flies. If such condition prevails the face should be painted with the following combination as advised by Wakely.

℞

Menthol	grs. II
Oil Eucalyptus	m. III
Carron oil	ounce I

This should be constantly applied with a camel's hair brush, and the pus should be bathed away with Sodii Sulphas Solution every three hours. When deeper sloughing is expected, pads of sterlized gauze should be applied and kept constantly moist with hypertonic Salt Solution. Sometimes the conjunctivae are also affected, then they should be bathed every hour or ten minutes with boric lotion.

When once the sloughing has ceased and a clean granulating surface has formed, the affected area should be treated as a granulated wound. For this Ambrine or its Army counterpart Paraffin No. 7 (given elsewhere) is of greatest value.

It is very important to remember that the granulating area be practically aseptic or at any rate not discharging too freely, and to this end Pot. Permanganas fomentations should be employed, or the parts covered with gauze soaked in Dakin's solution.

Some very bad cases, especially flexures of joints, require Thiersch-grafting, but owing to the efficacy of Paraffin treatment, it becomes seldom necessary. Every case should be taken to prevent deformities whenever possible. If the burn involves axilla the arm must be kept at right angles, while if the elbow is involved, it must be kept straight. Daily movements of the joints must be taken at an early date in deep burns of limbs to prevent cicatricial adhesions.

The resultant scar does not contract nearly so much as when the wound is allowed to heal by the ingrowth of epithelium from uninjured margins. It is useless to prevent contraction of fibrous tissue which has already formed as the continued strain of extension will delay healing and lead to the formation of dense fibrous bands. In such conditions it is better to wait till the wound has healed and then do some plastic operation according as the case may demand.

II. *Medicines applied locally in burns*:—The multiplicity of remedies advocated for the treatment of burns, is the best proof that there is still no specific treatment for this trouble. The following applications have been found good and have been advocated:—

(1) *Acetoform*:—A compound of aluminium acetate with acid citric and hexamethylentetramine; a colourless powder with a slightly acid odour, and very readily soluble in water. It is used as a dusting powder containing 5% and as an ointment of the same strength. The ung. is very suitable for the burns of 1st and 2nd degree. It is cooling and anodyne and promotes growth of granulating tissue.

2. *Albertan*—an aluminium compound—used as a dusting powder.

3. *Almatein*—a condensation product of haematoxylin and formaldehyde; used in burns of 2nd. degree. Has a striking anodyne effect.

4. Aluminium acetate in 2% solution.

5. *Antiphlogistine*—applied cold as a paste and changed after 24 hours.

6. *Bismudzin*:—(Zinc oxide, Bismuth tribromph Comp)—a very soothing, unirritating, non-staining and easily applied ointment, useful in all degrees of burns.

7. Bismuth Subnitras+kaolin, equal parts for dusting.

8. Boric acid+starch—equal parts—dust.

9. Butesin—picrate (see elsewhere).

10. Carron oil—a dirty preparation; should be condemned.

11. *Chiolin*—apply freely.

12. *Cholevol*—A colloidal silver in combination with Sodium Cholate; generally used in burns of third degree in Solution upto 10%.

13. *Collodion*—paint.

14. *Collosol argentum* (Crookes) immediately applied to the affected area. The action of the drug affords immediate relief from pain and its antiseptic and curative properties render it a most valuable routine measure, particularly for the minor household casualty.

15. *Collosol argentum Pasta* (Crookes) applied in small localized areas to accelerate healing.

16. *Combustion*:—An ointment containing aluminium—bismuth and zinc compounds. Used in burns of 1st and 2nd degrees.

17. Copper compound e. g., sulph, oxide and some organic Salts. Used as an ointment containing 0·2% of copper Sulphate.

18. *Dichloramin* T—in 2% solution.

19. *Hypertonic Saline Solution*.

20. *Iodex*—A valuable lenitive agent, an efficient bland, non-irritating and antiseptic dressing, a superior Iodine epulotic and comfortable dressing. It does not adhere to the granulating surface and can be removed without causing any pain. It also seems to inhibit the toxic absorption from burns, especially those involving large areas, and at the same time it minimizes the formation of scars and contractures. In burns the impaired surface should be cleansed of any debris of charred skin. Then a thick coating of Iodex should be applied under

the benzene reaction solvent is used. The melting point is 109° to 110°. It is odourless. It has a slightly bitter taste. Its solubility in water is in the proportion of 1 in 2000; in cotton seed oil 1 in 100 and in alcohol and ether it is readily soluble.

For clinical purposes Butesin Picrate has been used in three preparations:—(1) in an emollient base which contains 1% of the drug, (2) 1% cotton seed oil solution; and (3) in a dusting powder containing 5% Butesin Picrate in a bland neutral base. By this treatment, (1) the pain of the burn is relieved within half-an-hour, and no infection occurs, (2) healing is said to take place in about one half the usual time and (3) the offensive odour which is so often encountered on removal of the first dressing, is entirely absent with this treatment.—a new treatment for burns by Floyd K. Thayer, Chicago.

V. *Lanoline treatment of Extensive Burns*:—Dr. Bellet, C.M.O., in French Navy, opines that the treatment of extensive and deep burns by lanoline is the best. In his opinion other treatments are not satisfactory e.g. Picric acid sometimes causes irritation and gives pain later, though it soothes at the first dressing. "Geneolised" oil, the French equivalent for Eucalyptus oil, draws away and leaves adherent dressings. Ambrine is good but dressing takes a long time and healing does not occur so soon as with lanoline. Pure lanoline is a little irritating in summer, and for this about 20% vaseline should be added. The following procedure has been adopted by him. The burnt surface and a wide area around is disinfected at the first dressing. The skin is always dirty, and compresses of spirit soap will clean it. They are surprisingly well borne at first and when they have done their work, the burns are washed with much boiled water or weak solution of Pot. Permanganas. Blisters are opened, dead tissue is cut away, saving all the epidermis possible and the wound is washed with normal saline and dried with sterile gauze. Finally, compresses soaked in sterilized lanoline with 20% of vaseline kept fluid in a water bath, are adjusted over absorbent cotton. Large dressings should be kept ready to save time and shock to the patient. All surgical requisites to be used, must be sterilized as if for a surgical operation, and this must be done at subsequent dressings. At first, the applications are changed daily there being no pain or bleeding as they do not stick. After the dressing is removed, and any sloughs taken away, a washing with weak permanganate is followed by another with normal Saline; the area around is cleaned with alcohol and ether; the whole is dried and the dressing is applied. There is a rapid improvement by this treatment. There is little discharge; sloughs are quickly cast off, wounds soon have rosy granulations, and in a week, bluish islands of epithelium begin to

appear and a healing edge is found. There is generally no surrounding inflammation or pus. Very few after-effects, e.g. contractions, awkward adhesions, scars or limitation of movements are seen in this treatment.

VI. (a) *Tannic acid in the treatment of burns*:—E. C. Davidson advocates the use of gauze dressings saturated with a 2.5%, freshly made aqueous solution of tannic acid in the treatment of burns. After the administration of ¼ gr morphine Sulph hypodermically the burnt area is covered with dry sterile gauze pads held in position by sterile gauze bandage and this dressing is then soaked with tannic acid solution. In order to avoid any deep caustic action, inspection is made at the end of 12, 18 & 24 hours by removing a small section of dressing. As soon as the part has assumed a light brown colour, all dressings are removed and the wound is left exposed to the air being carefully protected from injury, chilling, and bacterial invasion by being covered by a cradle draped with sterile linen. He recommends a 5% tannic acid ointment made with equal parts of vaseline and lanoline especially for burns about the eyes. He also adds that it is most essential to keep up the fluid balance of the body, either by giving liquids orally, hypodermoclysis, procloclysis, or intravenously; blood transfusion has had good effects for the painless dressing, it may be necessary to wet the gauze with fresh solution. The initial dressing is analgesic, and with subsequent exposure to the air lessens toxaemia and promotes comfort. (*Surg. Gynaecol and Obstet Aug. 25*) (b) F. Cristopher advises that, when $\frac{1}{10}$ or more of the body surface is burnt treat the shock first by morphine, external heat, or fluids, and possibly by blood transfusion. As soon as possible gauze saturated with 2·5 % tannic acid solution is applied, and the area is kept moist with this solution for 24 hours until it is thoroughly tanned. The burnt area is then treated by the open-air method under a heated cradle. Fluids are pushed and the blood transfusions are given if required. When all sloughs have disappeared, and the wound is cleanly granulating, adhesive or rubber tissue strips are applied, and Scarlet-red preparations are used to accelerate epithelization. Skin grafting is occasionally advisable. Tannic acid appears to exert its beneficial action by fixing the toxic substances in the burnt tissue. In small burns involving less than 5% of the body surface the application of soothing ointment containing phenol or picric acid, and gauze dressings, is the best treatment. (*Amer. Jour. Surg. July 1928*).

(vii) *Treatment of Severe burns with common Salt:*—Davidson, in Archives of Surgery, states that a lowering of the blood chlorides is characteristic in the case of severely burnt patients.

This lowering could not be explained by the diet, by fever, by exudation, by difference in the concentration of the blood or by a lowering of the renal threshold. A true sodium chloride retention appears to take place. Related to this lowered plasma chloride content was a decided decrease in the Sodium chloride of the urine. This disturbance was directly proportionate to the amount of tissue devitalized by burns. The retained chlorides were not present in the blood in some other form. Furthermore, there was markedly increased protein metabolism which was directly corrected by the administration of common salt. The entire pathologic picture was strikingly similar to that observed in intestinal obstruction. In intestinal obstruction sodium chloride has proved protective to the mucosa by detoxifying. The administration of common Salt, is, therefore indicated in severe burns. (*American Medicine, N. Y.*)

(viii) *Paraffin Treatment for Burns*:—Trueblood after treating cases of burns gives his experience as follows:—

(1) Paraffin treatment of burns and denuded areas offers certain advantages when properly carried out.

(2) It is a local treatment and not intended to assist in combating general toxaemia.

(3) It should never be applied to a wound or burn prior to a debridement, if devitalized tissue is present.

(4) If infection is present, a short period should be allowed for sterilization of the wound by mild antiseptic prior to application of paraffin, twenty-four hours being usually sufficient.

(5) A test can easily be made to discover if infection is present by applying the wax and watching developments. Considerable time can be gained by this procedure.

(6) Paraffin dressings are painless.

(7) Paraffin dressings do not, by traumatizing or irritating the granulation process produce the exuberant granulating tissue seen in other methods.

(8) Paraffin seems to retard growth of excessive granulation tissue.

(9) Paraffin splints and protects the delicate membrane of epithelium.

(10) Paraffin is economical in itself and in the saving of time for the patient.

(11) The seropurulent discharge which accumulates under the paraffin dressings must not be taken for evidence of infection (*Northwest Medicine.*)

(ix) Dakin's Solution when it can be borne by the patient chemically removes the necrotic tissue of burns in the same satisfactory manner as in wounds, but only a few patients endure the pain caused by its application. In the majority of cases the observer has had to be content with natural tissue autolysis assisted by the mechanical cleaning of the daily immersions in a 4% Soda Bicarbonas solution.

Until the condition of Surgical sterility is obtained, a single layer of the wide mesh paraffin gauze and the exposure of the part to the air provide the necessary drainage and a dressing that will float off the wound with minimal trauma. The chlorine group has been the most satisfactory in observer's experience, to employ a chemical antiseptic to obtain and maintain surgical sterility of burnt surfaces if exposed to the air. They must be tested to avoid the application of irritating free chlorine or hydrochloric acid in using chloramine—T; at first very weak strengths should be used ($\frac{1}{4}$% of 1%) and as the patient becomes accustomed it should be gradually increased to 0·5%. The covering of burnt surfaces, when surgically sterile, with wax films often maintains their sterility and thus provides the best conditions for the growth of the new skin. The rate of growth of the new skin and of the grafted skin is at the maximum upon surfaces which have reached the condition of sterility in the shortest interval of time. (*Walter E. Stell Lee, Philadelphia, International Journal of Med. Surg.—1923*).

(*To be continued*).

TIT-BITS ON PEDIATRICS

BY

C. PAPA RAU, L.M.P., M.C.P.S., D. VET. SC.,

C/o St. George's Home and Baby Clinic, Vizayanagaram.

(Continued from page 533, *Antiseptic*, September 1930.)

(16) I have had many an occasion to attend on the new-born infants who failed to pass urine. Some have *no meatal opening.* Some have not responded probably due to some obstruction in the ureters or external genitals. I was a surgeon then and did all my duty satisfactorily. One should be careful to know that some will not pass urine at all for 4 days though not defective in any way, which is generally nothing but anuria. It is also true, as was noted by me at Denkada, that the mothers fail to note the wetting of the clothes generally under the infants as it is customary to keep a live oven under the cot of the baby which dries up all the soaked linen. Never be non-plussed but take it easy to examine well the new-born infant and see the mother is capable

of answering your questions before you take up your knife to help the baby to pass urine. I am glad to see Advocate Mr. N. Somayajulu's son, who had undergone an operation on 2nd day of his birth for occluded prepuce without meatal opening. He is now reading in the college of Berhampore, aged 14 years.

(17) It will be seen that, owing to the larger gross quantity of fluids taken into the body by the bottle-fed infant, the amount of urine passed is greater than that of the breast-fed infant. Pseudo *infantile diabetes* is not uncommon among the bottle-fed, as the shortage of sugar is always counter-balanced by a mad addition to each fluid feed, without consideration and due examination of glandular deficiency or over efficiency, which is the basic cause for all such infantile diseases: e.g., a noted case in a rich Kshatrya's house. In such cases, thyroid treatment would help best. It was found that "insulin" could do no better than further mischief and was quite useless—a combination would do well I believe.

(18) I have met dozens of "*imperforate anus*" among the new born, often the midwife (town) fails to see such anamolies in her hurryburry to attend to her next call. A call from the party heralds on the 2nd or 3rd day after birth, when the mother finds it to her surprise that her new-born has not shown signs of feacal excreta though it takes bellyful what all (castor-oil, calomel, and milk) is given. Stomach is bloated up. It throws out all now and then Finally feacal matter is thrown out. I have relieved such patients to my satisfaction only when the closure (anal) is not deep enough. Some suggestions from Lazar in his "Urgent Surgery" are very valuable, but not feasible to give satisfactory results in home treatment. Hence many of my failures among the masses (rural) as such anamolies are nothing but fatalities without knife.

(19) The explanation as to why the new-born infant gradually loses its *weight* within 7 days from its birth is not far to seek. The artificially fed infant and the infant fed by a wet-nurse excrete urea in greater quantities than infants fed at the mother's breast, wherein the amount of urea increases from the first to third day, which is responsible for insufficient ingestion of food resulting in the tissues of the body burnt up in the process of metabolism. In as much as the body is rich in fat, this is burnt first, saving nitrogen. Hence there is a diminution of weight. From the 7th day onwards this loss of weight is counter-balanced by an increased food from the mother's breasts, to attain its normal metabolism and normal excretion of urea. The new-born infants in Indian households are fed first for 3 days with castor oil, ass's milk (where procurable) and cow's milk and rubbed all over with

gingili oil and groundnut oil rich in fats. The mother is fed from the third day with large quantities of pure ghee or oil (gingili) in her daily ration. Of course this will help a new-born to put on fat, if it is fed on its mother's breasts, the milk of which is rich in fat. The artificially fed infants will never grow in weight physiologically but suffer greatly from pathological troubles mostly intestinal. This is notorious in the middle and high class society women who take a vow not to put their infants to their breasts. Verification is at our door in our rounds and is not far to seek. I take always a serious objection and chide such mothers who fail to put their infants to their breasts making them understand the various sequalae that attend on such failures both to mother and baby.

(20) It is proved tentatively that *albumen* is not present normally in the urine of breast-fed infants, unless the mother has during her carrying period suffered from pre-eclampsia fits and Albuminuria and unless it is in some way connected with the disturbances of the functions of the intestine due to artificial feeding. It is not possible in the Indian households to take a serious view of the infants' urine until the third year, when it is possible to hold a certain quantity for examination. Certainly there will always be a change in the composition of the infants' urine according to its mother's or wet-nurse's health and diet, tuberculosis, exanthemata, pneunmonia and gastro-entrities which are common in the artificially fed infants and children. The urine of artificially fed infants is always formed to be albuminous as it is rich in carbohydrates and gives out a white chalky mark on drying. Horlick's Food and its over feeding is the best example.

(21) With increasing amounts of fluid drink, the *urine* gradually assumes the almost colourless and watery quantity, which is characteristic of the normal breast-fed child. It is quite contrary with the aritficial-fed infants and those that are fed by wet-nurse with undenominational diet wherein it assumes the high deep colour. The reaction of the urine of the infants as noted is acid with sp gr. ranging from 1006 to 1012 in the 1st day of life and 1008 to 1013 the 2nd to 4th day and gradually assumes 1003 to 1004, the low concentration characteristic of the normal infant. A white chalky deposit or mark left by the urine of infants and children fed on artificial foods say-Horlicks, Glaxo, Mellin's, Ovaltine, etc., is of a very marked clinical importance to prove that the assimilation of such food acts on both the kidney infracta and infracta urine, leading to serious pathological results that end in grave consequences in most cases, unless those causative factors are removed at once and put the infant or child on wet-nurse or milk (cow's) humanised. failing to convince its mother to put her infant to her breasts. It

is very significant in high society or rich households to keep infants with wet-nurses, lest beauty is missed.

(22) Since the infant brings with it into the world the *enzymes* necessary for the decomposition of food stuffs in its alimentary canal, its practical and clinical import in infant clinics is of the utmost importance that in the diet of a young artificially fed infant, it is unnecessary to replace the usual diluted cow milk of the infants, foods either with mixtures containing predigested proteins or with the therapeutic administration of enzymes. Next the permiability of the intestinal wall has its physiological advantages in the absorption of the protein of the colostrum and of protective substances from the milk of the mother, in addition to the disadvantage by the formation of antibodies when foreign proteins are present in the foods (invalid and artificial) entrance of toxins and toxic products lead to improper digestion. Thus the injurious influences arising in the digestive tract are as a general rule followed by more serious consequences in the first few days of life than in the later infancy and childhood. So one should be careful not to put the infants on artificial foods, which are nothing but death traps. I always condemn them for infants as useless but may be good as invalid's foods.

(23) It is indispensable to know the successive stages which "*meconium*" the intestinal contents of the new-born, takes from hour to hour and day to day. During the 1st day it is blue-black, tenacious, sticky, homogeneous and without smell. It is sometimes dark brown, then yellowish brown and at times dark olive green. From the 3rd day onwards the brown evacuations assume a somewhat thinner quality-softer, less tenacious and sticky and poorer in substance. The meconium gradually disappears with the intake of milk from its mother, and the normal stools of the lactation period appear gradually from brown or greenish brown with small yellow watery flakes and finally assume the colour of yellowish brown or yellow. These stools have, at times, a distinctly sour smell but usually give a smell reminiscent of the same served with game. Pasty homogeneous stools often appear in overfed infants with alternate watery evacuations. The intestinal bacterial flora generally is of oral infection, amniotic infection from generative organs of the mother, from the air, from the bath water and lastly from the unhygienic nipples and its glandular secretion. I always give 1/8 gr. calomel with a tea-spoon of castor oil before the infant gives its first evacuation. I do it with double motive, just to give its liver due action and to kill undue flora in the intestines.

(24) There is so much of speculation why the new-born takes easily to such *unhealthy tracks* leading to diseases. The alkalinity

of the featal blood is similar to that of the maternal, which is of low alkalinitic content during pregnancy. A distinctly low alkalinity in the blood of the weakly, prematurely born infant is the mile stone of the low resistance against bacterial invasion (septicæmic and other infectious diseases) and when the alkalinity of the blood is raised, the resistance against bacterial processes is increased, thereby lessening the process of bacterial invasion. The CO_2 content of the blood is relatively higher in premature born and asphyxiated children and has a markedly dark red colour.

(25) *Dermoids* or other congenital cysts and tumours of the skin are best treated by electrolysis, which causes a fibromatous degeneration and gradual reduction of the growth in such a satisfactory manner that purely surgical treatment may be discarded. The positive pole, consisting of a moist pad, is applied to the nape of the neck and a needle attached to the negative pole of a direct current of 2 miliamperes is inserted flat into the growth for one minute. This is to be repeated 2 or 3 times, the needle being inserted in a different part on each occasion. (Shaw and La Fetra: diseases of children. p. 7). I would leave them grow till to a certain age, say, above 10 and then use my knife with ease. Generally infants and children will be scared away under electrical treatment though very good. I found it in most cases with the best results under knife and electricity only after 10 years.

(26) In *cryptophthalmia*, experience has shown that operative procedure is quite useless and besides,—anatomical examinations have established the fact that the development of the cornea has been arrested or that there is absence or rudimentary development of lens and signs of chronic inflammation of the globe, especially in the deeper parts. This may be either congenital in a simple individual, or as a family affection, one lid fissure is usually completely missing. (Shaw and Lafetra: D. C. P. 7). I have come across heriditary familial cases, which were found to be most refractory to any treatment, probably one to heriditary specific taint. Both personal and family history, I found to get to trace out the cause but could not do so on meagre stories without any seriousness about them.

(27) The so-called *Mongolion fold* is a crescent shaped fold of skin bent outward, which extends towards the median line from the inner canthus to the root of the nose. This is quite common in children of certain localities. This anomaly usually disappears as the growth of the bridge of the nose progresses. This fold is more strongly developed in the Mongolion race as in Nepal, Tibet, Burma, China and Siam, and causes the peculiar obliquity of the lid. It may be made to disappear by pinching up the skin at the root of the nose into a longitudinal fold. Surgical interference is

of little use, (S & L: D. C. P 7) unless it is complicated by ptosis, although the operation is simple, consisting of the excision of longitudinal oval piece of skin and subsequent union of the traumatic margins by several sutures. Anyhow, it is the business of a specialist but not of a tyro with general practice. I always note them and prefer sending them to the proper place, where it could be set right with the greatest success.

(28) *Polytrichia or distichiasis congenita* is an anamoly in which the ciliae are arranged in 2, 3 or 4 rows instead of one. This condition requires surgical treatment because the ciliae of the Supernumerary rows which are turned inward touch the anterior surface of the bulb, causing the same corneal changes which occur in acquired polytrichia due to trachomatous or otherwise irregular cicatrization of the margin of the lid and conjuctive. Distichiasis is also congenital, wherein you find absence or atrophy of the cliniae as in general alopecia, usually follows as a family affection due to syphilitic taint hereditary or otherwise. I have noted infants without ciliae to their lids born to syphilitic parents—(Pfaundle and Schlossmann: D. C. P. 10) and also noted in some infants without any eye-brows, even for a year or more. But explaining such anamolies to clients is rather dangerous as it would scare away the ignorant people and gentlemen of so-called social status.

(29) *Congenital pterygium* of the eyelids or third eyelid (Schapringer) is otherwise known as Fornico-blepharon (Shaw and Holt). It is nothing but a supernumerary conjunctive complicated by entropion, which is attached with a more or less extensive base on the tarsal surface near the palpebral margin and is undermined to such an extent that a sound can be inserted more or less completely between the pseudo-membrane and the palpebral conjunctiva. It is usually regarded as a deformity but repeatedly observed this membranous duplicature as a sequel to "croupous" conjunctivitis. (Shaw and Schapringer) Surgical interference by removal of the duplicature may be quite necessary, if complicated by entropon. This should be handled by a specialist in ophthalmic surgery, but not by a tyro in general practice as it would lead to serious sequlae, if it was 'done without due consideration. I sent one to Madras in 1913.

(30) *Congenital lachrymal fistula* may be caused by an intra-uterine infectious dacryocsstitis. If this is in communication with the nasal cavity, the patient (adult) is able to breathe and exhale the smoke of a cigarette, when the mouth and nose are closed. If there is no communication, the secretion of the fistulae will find its way out on pressure towards the eye and become

chronic. It may be due to intra-uterine infection due to pressure or injuries to the lower turbinated bone during an instrumental delivery of the child. This is often mistaken for suppuration of the lachrymal sac, conjunctival catarrh or even for conjunctival suppuration in the new-born. Astringents and caustics are of no use in alleviating this. Surgical interference is quite necessary to remove unplesant and ugly complication. If it is stenosis of the duct, there will be no secretion during sleep. If it is due to gonorrhoeal infection during parturition, there will be swelling of the eyelids and corneal complication, which are absent in stenosis of the duct. If it is due to tubercular process, it may be stimulated by a perforating outward opening of osteomyelitis of the superior maxilla due to suppuration of the dental (and tonsilar) follicles. If this is bilateral, the surgical interference should be left to an experienced ophthalmic surgeon. Croupous diphtheric infection has also proved to be the cause of lachrymal suppuration and fistula. (Copez). I have directed a boy of 7 years with lachrymal fistulae (secreting) for over 2 years, got from Measles and bronchial troubles of a croupous nature to Vizag General Hospital to see the specialist there.

(31) *Congenital opacities and staphyloma* of the cornea: Aside from diffuse opacities with vascularization of the cornea, which occur in microophthalmos and represent a pure arrest of development, opacities of the cornea are caused by injuries received at birth. The pressure of the forceps may tear descemet's membrane, with resulting straited opacities in the lowet strata of the corneal substance, or there may be opacities caused by infection at birth—syphilitic, gonorrhoeal and streptoccocal. Bilateral opacity and staphyloma are strikingly frequent. The lattice-like opacity of the cornea, which has been observed as early as the 5th Year, is often hereditary and probably of syphilitic origin. (Shaw and LaFetra: D. C. P. 13, 15). Nothing could be done, I believe, to restore sight, but means may be adopted, in the light of modern research thro' radium and 'xray therapy, to see if these later methods would be of any use.

(32) *Weakness and paralysis of accommodation* may be 1st sign of increasing diabetes, which often causes a disproportionately rapid decrease of the absolute and relative range of accommodation. It may also occur suddenly as a late manifestation of Syphilis and may rapidly disappear and return. A cure is rare, if instillations of physostigmine have no effect upon the pupil and ciliary muscle. Physically, as the metabolic anomaly improves, these mainfestations again decrease. This could be found only in children of school age by determining the near and

distant point of the eyes (Shaw and LaFatra: Dis. of Chil, P. 301—303). As diabetes among children is rare and could not be traced even after repeated examination of urine for sugar. I take it as due to Syphilitic hereditary taint and nothing else. Blood examination would reveal the real state of disaccommodation. Specific treatment would improve it.

(*To be continued*).

Cases & Comments

A NEW TREATMENT FOR MEASLES

BY

DR. M. BAROOA, L.M.P., F.T.S., SAHITYABHUSHAN,
MANCOTTA T. E. HOSPITAL,
Dibrugarh, Assam.

Various drugs are in use in the treatment of Measles and we are all familiar with them.

It is in the domain of medicines that the subject of therapeutics is making a striding progress.

As the poet laureate Lord Tennyson says:—

"Old order changeth yielding place to new,
And God fulfils himself in many ways;
Lest one good custom should corrupt the world."

In the British Medical Journal for the 28th June, 1930, under the caption "Drug treatment of Measles," Pyramidon has been extolled in the following way:—

"Pyramidon or Amidopyrin, 1 gr. for each year of age, with a maximum of 4½ grs. for any age, given four-hourly. When the temperature falls the drug may be stopped, unless some other symptoms show that the disease is active. The drug may be given as tablets, crushed in jam or buried in a sultana. The temperature is lowered the first day and its duration is at least half the usual."

I have, of late, the unique opportunity of trying this drug in a large number of cases with uniform success. I administer Pyramidon crystals, powdered and mixed with either syrup of tolu, syrup: aurantii or simple syrup in a tea-spoon.

Now, what is Pyramidon? It is "a methyl derivative of antipyrine. Yellowish-white crystals, soluble in water.

Analgesic, antipyretic. Dose. 5 to 8 grs. in solution." (R. Ghosh).

In conclusion I prequest my fellow brethren to give a clinical trial to this drug when any opportunity favours them and publish the results through the medium of the *Antiseptic*.

CEREBRAL MALARIA

BY

K. V. ADALJA, M. B. B. S. NAIROBI.

One night I was hurriedly called to see a young girl of five who had developed regular spasms of the right half of the body including face, upper and lower extremeties all of a sudden. Her spleen was enlarged and the abdomen tympanitic. She was unconscious and reflexes were absent on that side. She had high temperature of 105°. In view of enlarged spleen I made a provsional diagnosis of cerebral malaria though I must admit that I had not seen so far such spasmodic contractions involving only one half of the body occurring on account of cerebral malaria. I gave her soap and water enema, sponged her down to 100 and injected Q grs. V intramuscularly. I also took a smear of the blood for microscopic examination.

Next morning the patient recovered consciousness. Her temperature was normal. But she had no power in her right hand and leg. The reflexes were absent.

I saw the case again after ten days. The reflexes were more exaggerated. The power had returned a little but still there is wrist drop and she cannot very well use the extensors of the leg.

The blood showed sub-terian infection.

Malaria is known to produce all sorts of pictures. Cerebral malaria is very common but the invlolvemont of one half of the brain only is, so far as I know, very rare.

AN INTERESTING CASE OF HEADACHE FOR DIAGNOSIS

BY

DR. DALIPCHAND, L. M. P., AMBALA.

Name:—Mr. Agastya Muni Deva, 19 H.M.
Profession:—Medical Student, Amritsar,
Complaints:—Severe diffused headache.
Duration:—One year.

History of illness:—In September last year, the patient got a mild attack of Coryza, and one day when he could not sleep due to

certain circumstances he felt heaviness in the head of which he did not take any care, but this continued for about a fortnight. Afterwards he got fever which subsided after two or three weeks but the headache continued until it took its severe form in December, the patient was unable to sleep till late hours in the night due to headache and throbbing in the head. He then resorted to the treatment of various prominent and leading Physicians of the Province who tried the following:—

1. Nitrites and Intravenous injections of Nitroglycerine.
2. Saline and other purgatives.
3. Hypnotics:—including Veramon, Chloral hydrate and Bromide group.
4. Iodide, Mercury, Salicylates, Gelsemium, Calcium Lactate etc.
5. Intravenous injections of Saturated Mag. sulph.
6. Thyroid & Liver extract.
7. Cold bath, Venesection, Lumber puncture, Faradism and Galvanism.
8. Absolute mental and physical rest.

In spite of his trying so many medicines and other measures he got only a little temporary relief for the time being. In the month of March headache was in the worst form and the blood pressure was 160 Hg. M. M. One day, in the said month a serious happening took place when he was sitting in a garden, his blood pressure came down to 85 Hg. M.M., all of a asudden. He felt half conscious his skin began to flush, headache was lessened and the patient felt extremely cold. Immediately injections of Strychnine and Adrenaline were given in the Hospital, but to no effect. He was advised absolute rest during which his blood pressure rose up to 160 Hg. M. M. He then was given Thyroid extract and the blood pressure came down to the present level i. e., 140 Hg. M. M.

Family History. Nothing particular. No tendency to high blood pressure.

Previous history:—The patient gives history of having suffered from Typhoid during his childhood but there is no history of Small Pox, Dysentery, Diarrhœa and any Venereal disease.

PHYSICAL EXAMINATION.

Nervous system:—Reflexes are very brisk. No ankle clonus. Hypersensitiveness to pain, heat and touch. Intra-cranial pressure increased shown by the jet on Lumber Puncture. Memory sharp but dulled when there is present a severe attack of headache. Very little fatigue is felt even when the patient is very active both mentally and physically.

Circulatory system. Systolic blood pressure 140 Hg. M. M. Diastolic Blood Pressure 85 Hg. M. M. Heart hypertrophied.

Red blood corpuscles 8 Million per C. M. M.

Leucocytes—22000 (General increase).

Ophthalmoscopic. Examination of the Retina reveals no abnormality; nose, ear and throat normal.

Examination of Urine:—Sp. gr. 1020. Acid. No abnormal ingredient found.

All the lymph-glands are enlarged.

Temperature at the time of examination—98·4 degrees F.

Alimentary, Respiratory and Urinary systems are all in normal condition.

I request my fellow brethren to help me through this journal by giving their opinion regarding diagnosis and treatment.

A CASE OF HYPER-EMESIS

BY

S. K. DUTT L. M. P., BOGRA.

A lady primipara, aged 15 years in the 6th month of her pregnancy came under my treatment. I went to see the patient in a mufussil village, 4 days after her illness. The place of her residence was Malaria-stricken. Two of her sisters were then suffering from malaria.

One day she was attacked with fever, the temperature rose up to 105 F and lasted for two hours and then it dropped down to 99° F. This minimum temperature lasted about 6 or 7 hours. Next day the temperature again rose up to 105 F and the patient's condition was as follows:—

Her Bowels constipated.
Pulse-beat—148 per minute.
Respiration—28 „ „
Tongue—Coated with white fur.

She had extreme thirst. The temperature again dropped down. At this stage persistent vomiting set in, which was at first, though less, soon became incessant.

In that condition of fluctuating temperature and vomiting she passed another day. The attending physician gave her an enema and alkaline mixture. He thought rightly the case to be one of Malaria and, at-first, though he hesitated to push quinine, yet, afterwards he gave her an injection of Quinine (gr. 7½). On the morning of the 4th day the temperature dropped to 99° F. but vomiting continued as before. On the 4th, day evening I went to the

village, about 12 miles off from my town and found the patient in the following condition :—

Temperature—99° F.
Pulse. —90 per minute.
Respiration. —20 „ „
Extreme thirst.

No enlargement of spleen or liver. Vomiting was excessive and it increased on slight movement and after taking any kind of diet.

Bowels—still constipated. High enemata was again given before my arrival. No other medicine was given after that injection. except a few tabloids of Quinine Bihydrochlor by mouth.

I began my treatment in the following way. I stopped quinine altogether, as I thought that sufficient doses have been pushed. I directed whole course of my treatment towards subduing the persistent vomiting. I injected Corpora Lutea Extract I c. c. (P. D) and gave Adrenalin Chloride solution ½ dr. with ℥ ii of water every 3 hours by mouth. I also gave some doses of Chloretone gr v every 4 hours. Fortunately she retained Adrenalin Chloride solution. One high enema was given containing normal saline, glucose, oil turpentine and glycothymolin.

In the meantime I examined her urine. The urine was high coloured. It contained no albumen, but a trace of sugar. I enquired whether the patient was taking glucose. I heard that no glucose was given, but sarbat was given to her which she liked very much.

I stayed there that night and in the next morning I was glad to find the patient in the condition stated below :—

Temperature—99° F
Thirst—Present but not so extreme.
Bowels—Moved once (by itself)

No vomiting during the whole night but the tendency to vomit still present.

In the morning I injected another dose of Corpora Lutea and gave plasmoquine co. tablets by mouth and advised to give her plasmoquine 4 tablets a day and also Adrenaline Chloride solution twice daily with water.

As to diet I gave her albumen water with Soda Bicarb and Fruit juice was given abundantly.

I prepared a solution of sodium Bicarbonate (150 grs. in a pint) and had a mind to give it by intravenous route, but when in the morning I saw that the patient was improving by those remedies mentioned above, I refrained from doing so.

The Antiseptic

ESTD., 1904.

A Monthly Journal of Medicine & Surgery.

Editors: DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

Editorial and Publishing Offices: 323, Thambu Chetty St., Madras.

Annual Subscription Rs. 5. Foreign, 10 Sh. Post Paid.

Vol. 27] NOVEMBER, 1930 [No. 11

THE DRUGS ENQUIRY COMMITTEE

In accordance with an amended resolution passed in the Council of State on 9-3-1927, the Government of India have recently appointed a Committee, consisting of Lt. Col. R.N. Chopra, I.M.S., Professor of Phamacology, School of Tropical Medicine, Calcutta, Chairman, Rev. Father J. F. Caius, S. J. Pharmacologist, Haffkine Institute, Bombay, Mr. H. Hooper P.K.C.P.S. of Messrs. Smith Stanistreet & Co. Ld., Calcutta and Mr. Maulvi Abdul Matin Chowdhury, M.L.A., as members. The resolution runs thus:—

"This Council recommends to the Governor-General in Council to urge all Provincial Governments to take such steps as may be possible to control the indiscriminate use of medicinal drugs and to legislate for the standardization of the preparation and for the sale of such drugs."

The terms of reference to the Committee are much wider in their scope. The Committee has been asked:—

(1) To enquire into the extent to which drugs and chemicals of impure quality and defective strength, particularly, those recognized by the British Pharmacopoeia are imported, manufactured or sold in British India and the necessity, in the public interest, of controlling such importation, manufacture and sale and to make recommendations;

(2) To report how far the recommendations made in (1) may be extended to known and approved medicinal preparations other than these referred to above and to medicines made from indigeneous drugs and chemicals; and

(3) To enquire into the necessity of legislation to restrict the profession of pharmacy to duly qualified persons and to make recommendations.

With a view to elucidate the different aspects of the problem, the Committee has issued a comprehensive questionnaire to large number of individuals and associations interested in the question.

The Committee will visit important centres in India to take evidence and will co-opt members, when necessary, to enable them to have the benefit of their special knowledge regarding the peculiar local conditions of any town or province. The first public sitting of the Committee was held in Madras on 17-10-1930. The Co-opted members for the city were Dr. U. Rama Rao, and Mr. Selvanayagam of the Madras Pharmaceutical Society.

EARLY HISTORY OF THE WORLD'S DRUG TRADE

A few words with regard to the early history of the world's drug trade will not be out of place here. Suffice it, if we commence for our purpose, at the point where in Europe, in the mediæval ages, faith-cure came to be supplanted by the drug-cure. The drugs then used were mostly 'the bitter pills or potions' which were thrust down the throats of unwilling patients by unscrupulous quacks. The European taste did not demand aloes, opium, pepper, sandalwood, Persian rhubarb and camphor for its table. The spices, that were sought, were used more in medicines than in condiments. The spice trade then in reality was the drug trade. From the 9th to the 15th century the drug trade was largely controlled by the Venetian Republic. Then the Portugese entered the drug trade. The fall of Constantinople in 1453 disrupted the Eastern trade and the price of the drugs rose to such a height that the Portugese and Spaniards conjointly entered into the trade. The Portugese led by Vasco-de-Gama, doubled the cape and sailed into Calicut. The Venetian Sea-supremacy was ended. During the next 100 years, Portugal was the centre of the drug trade. Like Vasco-de-Gama, Columbus sought to find a direct route to India and, instead, landed in America. In the 17th Century, the Dutch superseded the Portugese and the Sunda Islands formed a fertile field for the drug trade. The Dutch in turn were displaced by the English. Thus, it will be seen, that India and the Sunda islands were and are, even to-day, the drug stores of the West and the drug trade belonged to whatever nation held the

supremacy of the seas. To-day England holds almost the undisputed and unrivalled control of the drug trade of the world. In the battle to control the drug trade 'torrents of blood were shed for the apparently innocent clove.'

INDIA'S SAD-PLIGHT.

India's position is unique. Instead of utilizing the drugs found within her own borders or which can be got from her neighbour, the Sunda Isles, she has got to depend on a country 6000 miles away, to fill the empty bottles of her Pharmacies. Nearly a crore of rupees worth of drugs and chemicals are imported annually from England. There is no gainsaying the fact that some of the imported drugs and medicines get deteriorated in strength due to climatic, storage and other conditions and that is an additional loss to the country, apart from their being a positive harm to the patients, should they find a way into their medicine bottles by unscrupulous dispensers. Medical men of eminence engaged in research work have told that England cannot help India, for her problems are quite different from those of a tropical country like India. The Government of India ought to have long ago established Chemical Laboratories in important centres in this country, where the Tinctures and other medicines can be prepared out of the drugs collected first hand in this country and their supineness has drained the public exchequer to the extent of nearly half a crore of rupees annually. Nor is this all; the costliness of the Allopathic medicines due to the circuitous route, which our own drugs take to reach us in medicinal form, is mainly responsible for the unpopularity of this system of treatment. Chemical Laboratories and herbariums in each of the several provinces of India are, therefore, dire and prime necessities and it is an economic folly of the highest magnitude to allow things to drift eternally like this and make India dependent on England for drugs to save her suffering millions. That the Government of India even now should have ignored the economic aspect of the question and placed it outside the orbit of the Committee's enquiry is indeed regrettable.

THE NEED FOR AN INDIAN PHARMACOPŒIA.

The compilation of an Indian Pharmacopoeia is thus a great desideratum. The various formulae given in the British, U. S. A. and other Pharmacopoeias, may, after sufficient laboratory test and trial in our own country, be adopted with advantage and included in the Indian Pharmacopoeia. The indigeneous systems of medicine may also be standardized and such of the therapeutic agents as are really efficacious may be brought within its fold.

SECRET REMEDIES AND PATENT MEDICINES.

The British Medical Association in their book entitled Secret Remedies—"what they cost and what they contain" observe as follows with regard to Secret Remedies:—

"One of the reasons for the popularity of secret remedies is their secrecy. It is a case in which the old saying "*Omne ignotum pro magnifico* applies". To begin with, there is for the average man or woman a certain fascination in secrecy. The quack takes advantage of this common foible of human nature to impress his customers. But secrecy has other uses in his trade; it enables him to make use of cheap, new or old fashioned drugs and to proclaim that his product possesses virtues beyond the ken of the mere doctor, his herbs have been culled in some remote prairie in America or among the mountains of central Africa, the secret of their virtues having been confided to him by some venerable chief, or again he would have us believe that his drug has been discovered by chemical research of alchemical profundity and is produced by processes so costly and elaborate that it can only be sold at a very high price".

These secret remedies, on which so much ink is being spilt and so many words are being wasted through advertisements in the lay and medical press, are one among the many factors that have spelt economic ruin on our land. The British Government have imposed a stamp duty on the secret medicines and are having an annual income of £4 to 5 millions. The U.S.A. are also imposing duty on secret remedies and patent medicines with this difference that while the Government of U.S.A. insist on the component parts of the medicine being inserted on the label in each packet, the British Government do not so insist and this is a great disadvantage to India, in asmuch as it is only the British products that are largely imported into India more than any other. The value of proprietary and patent medicines imported into India, according to the trade returns of 1926-27, was 27 lakhs of rupees, of which the United Kingdom supplied Rs. 15 lakhs, United States 3 lakhs, and Germany 5 lakhs.

THE NECESSITY FOR LEGISLATIVE CONTROL.

This enormous drain of India's wealth should instantly cease and there ought to be Legislative control over these patent medicines. There are also patent medicines and secret remedies of indigenous origin, which play similar havoc, though to a lesser extent. The Indian is no past master in the art of advertising and if he keeps his medicines secret, it is because he fears that any disclosure of the formula will kill his trade by widespread

advertisements of similar articles on the part of enterprising firms, European, American or Indian. Given sufficient guarantees, however, the indigenous practitioner will be willing and ready to give the composition of his medicine. In the case of indigenous practitioners who refuse to disclose their formulae, the Taxation Enquiry Committee have suggested a tax of 4 as in the rupee. They have also suggested an increase in the tariff rate of imported patent medicines to 50%. This may be alright from the financial point of view but from the point of view of the health of the people the giving out of the composition of the patent medicine on each bottle or label should be insisted on, as in U.S.A. Provision should also be made for penalizing the import and manufacture and sale in India of drugs and chemicals, the purity and strength of which are not up to the standard.

In these pages we have endeavoured to express our opinion with regard to the major issues involved in the terms of reference to the Committee. We trust the Committee will have smooth sailing and their findings will prove beneficial both to the public and the profession.

Medical News and Notes

NOTES

BY

MAJOR LABERNADIE M.D.M.S., P.E., (*Paris*).

THE FIRST INTERNATIONAL CONGRESS FOR MICROBIOLOGY has been held in Paris from the 20th to the 25th July 1930 on the ground of PASTEUR INSTITUTE, which is known as, the birth-place of modern Bacteriology.

Here below will be found some abstracts according to the Guide-Book of the Delegates:—

LEDINGHAM and ARKWRIGHT—*Report on certain aspects of bacterial variation*—The liability of bacteria to hereditary variations endowed with persistence or even permanence, extends to morphology, colonial growth, and almost every kind of known property or function. Several characters may vary simultaneously.

Special emphasis is laid on certain variations in the antigenic constitution of bacteria, both in nature and in artificial culture which are closely correlated with other characters such as virulence and prophylactic efficiency.

These newer developments have enriched our knowledge of the bacterial cells and conferred greater precision on many technical processes concerned with the diagnosis, treatment and prophylaxis of infectious diseases.

In the opinion of the authors the time is not ripe for fruitful discussion of questions relating to alleged cycles and fixual processes in bacterial growth, which some would regard as primarily responsible for the variant phenomena observed.

DOCHEZ (A. R.)—*The relationship of Streptococcus Hemolyticus to Scarlet fever.*

The frequent association of streptococcus with scarlet fever was clearly recognised very early in the bacteriological study of this disease. With the use of the blood agar plate for the differentiation of streptococci, introduced by Schotmuller, the type of streptococcus found in scarlet fever was constantly observed to be of the hemolytic variety. By careful bacteriological study of scarlet fever during the early days of the disease Bliss and Dochez have demonstrated that hemolytic streptococcus is present at the principal site of infection in 100% of instances. The same is present in contaminated foods and in the throats of healty carriers giving rise to local epidemics of the disease. Bacteriological and immunological study of the varieties of hemolytic streptococci found in association with scarlet fever has demonstrated that these organisms are closely related to each other by the reaction of agglutination, and that dominant agglutinative types exist. These types can commonly be differentiated from types of hemolytic streptococci that are associated with septic process in general. However, scarlet fever streptococci frequently germinate a soluble substance which is toxic in high dilution for susceptible individuals. This substance, when injected in adequate amounts into such individuals, produces a general scarletin form rash and other symptoms of scarlet fever.

If a hemolytic streptococcus, which is specific to scarlet fever is selected, and a horse is immunized for sufficient length of time (approximately 4 months), an immune serum with specific effects upon the course of scarlet fever in man can be produced. In order that such a serum may be most effective it is necessary to employ living streptococci, preferable by the method described by Dochez and Shermane.

This serum, when it has attained full immunological value, will cause a local blanching of the rash,—Schultz—Charlton phenomenon, in an active instance of scarlet fever, if the serum is applied within 3 days from the time of onset of the rash. Patients with scarlet fever have circulating in their blood in easily demonstrable quantities, during the toxic phase of the disease, the poisonous substance which is responsible for the rash and toxic symptoms of the disease. This substance is also excreted in the urine. Intramuscular or intravenous injection of scarletinal streptococcus antitoxin causes a complete neutralization of this substance in the blood and urine in less than 24 hours. Similar injection of streptococcus scarletinal antitoxin into a patient suffering from the acute disease results in a rapid disappearence of the rash, a fall in temperature and pulse rate to normal, a diminution of the leucocyte count, improvement of the local infections, and abatement of the toxic symptoms with a return to a state of well-being in from 24 to 48 hours. The numbers and seriousness of septic complications seem also to be diminished. No marked beneficial effect is observed on established septic complications of several days duration.

Young infants, up to the age of six months in general, do not react with local erythema upon intracutaneous injection of small amounts of the soluble toxic substance of streptococcus scarletinae. Infants with a negative skin reaction can be sensitized by injection of small amounts of streptococcus products and as a result of such sensitization develop a positive skin reaction which resembles the reaction of individuals susceptible to scarlet fever.

Guinea pigs and rabbits, whose skins are insensitive to the soluble substance of scarletinal streptococcus, can be sensitized by the intracutaneous and subcutaneous injection of streptococcus scarletina and its products. The positive skin reaction so induced is neutralizable by scarletinal antitoxin. Animals whose skins have become sensitive to the soluble substance of streptococcus when injected in a special manner with living streptococcus scarletinae show more pronounced features of the disease than do the insensitive animals. The soluble toxic substance of Streptococcus Scarletina is more nearly related pharmacodynamically to tuberculin than to diphtheria toxin.

Human beings from early infancy are frequently exposed to infective and sub-infective doses of streptococcus hemolyticus. As a result of this, their tissues become increasingly sensitive to the products of this streptococcus, particularly to the soluble toxic substances. Some individuals respond by elaborating in their blood a neutralizing substance which circulates continuously. Such individuals can never have clinical scarlet fever. Other

individuals remain hypersensitive for variable periods of time and during the stage of this hypersensitiveness, are susceptible to clinical scarlet fever when infected with a hemolytic streptococcus, which generates the soluble toxic substance in large amounts. Scarlet fever is not a highly specific disease, but is a form of manifestation of hemolytic streptococcus infection in an individual who has become hypersensitive to streptococcus products and in whom the elaboration of neutralizing antibody is delayed for variable periods of time.

KITASHIMA—*Studies on Cholera Vibrios found in various Epidemics in Japan.*

Japan is frequently visited by cholera epidemics of various magnitudes due primarily to the propinquity to the endemic focus like India and to the close communications with China where cholera occurs in epidemic form from time to time. The epidemic, however, in the recent years has not been extensive owing to improvements in water supplies and in sanitary conditions and to permeation of the ideas of preventions against infectious diseases. Many opportunities and materials are at hand for study of cholera vibrios. The recent advance in bacteriological knowledge, specially application of immunological reactions, made it esay to differentiate the true cholera vibrio from the other vibrios. The value of the immunological reactions is important, but it is natural that many problems arising as studies along this line is advanced. Collateral studies on biological characteristics, such as cultures and morphology of the vibrio, should not be neglected. A few important features on cultural characteristics will be described before the immunological phases are discussed.

Cholera vibrio requires alkaline medium for growth, but a strong alkaline medium hinders it. Occasionally, there are some strains, which grow well in a weak acid medium. The limits of the reactions of pepton water for growth are pH 5·5 to 9·0 and the optimum reaction is pH 7·8 to 8·1. Therefore, the best alkalinity of a medium used for a purpose of isolation of the vibrio in fæces is pH7·8.

The colonies on agar media are round, moist and slightly transparent,—occasionally, they are grey-white or white. Two forms of colonies may be formed from a strain, one small and thin, while the other thick and large. Sometimes difficulty is encountered in differentiating the Vibrio by the characteristics of colonies. Cholera-red reaction is a very distinct reaction, but the degree of the reaction varies according to different strains of the vibrio. It also varies according to the kind of pepton used. It is advisible to use a well digested pepton. On blood agar media a hemolytic

ring is commonly seen around the colonies, but it varies and in some strains it may be absent. This has been used extensively for the purpose of isolation of the vibrio before, but on account of unsatisfactory results and somewhat inconvenience in preparation of the medium, it is no longer used. A strain of the vibrio, like the Eltor strain, which produces a large amount of hemolysin, has not been found in Japan.

Virulence of the vibrio in all epidemics is not uniform. The minimum lethal dose, observed for 24 hours by intraperitoneal infection, is between 0. 05 mg. to 4. 0. mg. Even in one epidemic, strains of the vibrio with different virulence may be found, and some strains may have a stronger virulence in the beginning of an epidemic and weaker virulence toward the close of epidemic. In testing virulence of a strain, a medium with which an emulsion is made influences the results. Thus, physiological salt solution gives weaker virulence than bonillon-medium. The differences are two to five times.

Different types of vibrios isolated in different epidemics in Japan are found according to agglutination reactions. It was proved in 1912 that there are two different types of the vibrio.

A type which was isolated in the epidemic of 1912 is called a typical type, while a strain which does not conform to the typical type is called an atypical type. This difference, however, is only quantitative. For instance, a serm of an animal immunised with the typical type agglutinates this type with a dilution up to 6000 times, but this serum agglutinates an atypical type only with a dilution up to 400 times. There is also some differences in the Pfeiffer reaction, but this difference is not very marked. Consequently, if a large amount of serum is used as commonly done, this difference will not be shown.

As to the relation of the different types of the vibrios to epidemics, it was found that all types cause epidemic, the frequency being about even or the atypical types slightly more frequent. There is no relation of the different types to the severity of an epidemic. The mortality is also the same.

Comparative studies of the reported different strains show that the strains Baku, Odessa and V. Berolinensis belong to the so-called typical type while the strains Oergel, Elevens, Sarator belong to the atypical type. The terms typical or atypical types are not appropriate and Ohta recommended to call them the type 1 and 2. In 1921, Watanabe studied agglutination receptors of various strains of the vibrio and found that there are thermostable receptors and thermolabile receptors, which are destroyed at 70 ° to 80 ° C. Different combinations of these receptors,

according to Watanabe, will give rise to different types. Later, Nobechi repeated the experiment and confirmed Watanabe's resuslts. In Addition, he found the existence of an intermediate type. Watanabe and Hachiya also reported another type—Morphological and cultural characteristics of the strains of this type completely agree with this typical strains of cholera vibrio, but serum of animal immunised with this type of vibrio does not agglutinate any of over 60 strains of cholera vibrio kept in the laboratory, except a few strains. These latter strains should be regarded as belonging to the type reported by Watanabe and Hatchiya. Cultivation of this strain on agar media over several months, however, made it possible to be agglutinated with serums of the typical or atypical types. Thus, it is clearly indicated that, immunologically, the different types of cholera vibrio are variable and not stable. By a repeated cultivation on artificial media the vibrio undergoes changes in immunological reactions. Addition of an immune serum in media will also give rise to change in immunological reactions.

Thus cholera vibrio has different types, yet this difference is not so marked as in dysentery or paratyphoid microbes. But this difference is sufficient to influence on the results of the agglutination or Stiffer's reactions. Therefore, in studies on cholera, vibrio immune serums of different types, or a serum common to different types should be preferred. Since there are a few strains which agglutinate with immune serums weakly, morphological and biological examinations are essential. Especially, careful studies must be made when biological characteristics of the two strains are very close.

LANDSTEINER—*Blood-groups.*

The most important application of the isoagglutination reaction lies in the selection of donors for blood transfusion, a surgical measure, the frequent and successful execution of which depends largely on the utilization of the serological test.

Although it has been definitely established that transfusion with blood of the same group is on the whole entirely satisfactory, reactions do occur, the causes of which are not yet fully understood. Thus, it becomes necessary to investigate the question of the existence of individual variations in serum proteins and to ascertain whether or not such differences are in any way associated with the occurrence of anaphylactic-like symptoms following transfusion. According to several observations, such accidents can occur if the patient is hypersensitive to food substances present in the blood of the donor.

Those reactions, which are due to atypical agglutinins and which do not correspond to the scheme of the four blood groups require particular consideration, as they have occasionally caused difficulties in the determination of the blood group. Although their existence has frequently been questioned, it has been established through recent investigation that these reactions occur not infrequently. They can, however, be differentiated from the typical group reactions in that they are generally much weaker and usually disappear at higher temperatures (37° C). Moreover, since the atypical agglutinins act only on certain cells of a group and since the blood cells react typically, it is always easy to determine the blood groups, even though such extra-agglutinins are present. The atypical agglutinins are, probably, as a rule, also without considerable significance in transfusion. The specificity of the extra-agglutinins is variable, although one type occurs with special frequency.

Recent investigation on the question of the subgroups of Group (A) have shown that differentiation depends on qualitative differences (conditioned by heredity), because there are agglutinins which act specifically on one or the other subgroup. The two subgroups are, probably, not absolutely, sharply separated.

It is generally advisable to transfuse with blood of the same group, although blood is also frequently used which is not agglutinated by the patient's serum; e.g., blood O for recipients of all other groups, or blood A for A B individuals. The results are, on the whole, satisfactory, although accidents occur which are due to the fact that the agglutinin (and lysin) content of the donor serum is unusually high, or that the blood of the recipient has a low red cell count. It is thus necessary, in order to prevent accidents, to avoid donor bloods of high agglutinin content and to take into consideration the condition of the patient's blood.

Whenever possible, direct compatibility tests between the donor and recipient bloods should be carried out in addition to the grouping, as a further precautionary measure.

The numerous investigations concerning the inheritance of the blood group properties have all substantiated the dominance of agglutinogens A and B as set forth by V. Dungern and Hirschfeld. For the rest, the results agree very well with the theory, postulating 3 allelomorphic genes, as proposed by Bernstein. It follows from this theory that AB parents cannot have children of groups D or AB, and this inference has been found to hold true almost regularly.

Since, however, several exceptions to this rule have been reported, they should be taken into consideration in the forensic application of the Bernstein theory. (Looking for paternity).

By means of immune agglutinins new well-marked hereditary blood properties within the blood groups have been demonstrated. These findings together with those on the atypical human agglutinins lead to the conclusion that very numerous individual differences exist in human bloods. These findings do not invalidate the scheme of the four blood groups.

HINDLE—*Method of handling mosquitoes* (in transmission experiments with yellow fever.)

The mosquitoes are allowed to hatch into a large muslin cage and then transferred to special feeding pots by means of a duction pipette. Each feeding pot consists of a glass cylinder about 7 cms. in diameter and 14 cms. in length. The lower end is covered with mosquito netting, held in position by a band of adhesive tape. The upper end is covered with bolting silk through which is fixed a piece of glass-tubing, about 1 cm. in diameter and 7 cms. in length. About 10 mosquitoes are introduced through this entrance-tube into each feeding pot. The tube is then plugged with absorbent cotton wool and the plug pushed down until it projects slightly from the inner end of the entrance tube. This tube is now filled with water, which soaks into the cotton wool plug and, in order to prevent the water in the entrance tube draining away, the upper end is corked. In this way the entrance tube contains a column of water which keeps the cotton wool plug moist and the mosquitoes can suck up water from this plug and also lay their eggs on it.

When feeding on an infected monkey the animal is tied down on a table, and the lower end of the feeding pot placed against the shaved surface of the abdomen. The mosquitoes readily bite through the pores of the netting and generally feed within a few minutes. After feeding, the pot is carefully examined and any insects that have not ingested blood removed.

This is effected by lightly etherizing the whole feeding pot when any individual insect can be removed by means of a camel hair brush passed down to the entrance tube. The insects soon recover after being anaesthetized and show no ill-effects.

The mosquitoes are kept inside an incubator at 28° C., and when feeding on a monkey, the chamber is heated to approximately the same temperature.

BACTERIOPHAGY

Prof. Bordet does not trust to the existence of an ultramicroscopic living being. He thinks it is a matter of spontaneous modification, often hereditary, but not necessarily.

facts about the spontaneous

s growing on agar media; the

ococcus etc.

Gleanin ments on *B. coli* of which certain strains

e subcultures.

s faithful to his theory (1925) of "the spontaneous transmissible lysis".

Prof. d'Herelle replies:—we ought not to confuse the *bacteriophagy* and the phenomena of *Twort* or of *B. pyocyaneus*; they are different things.

The *bacteriophage* has a real, actual, obvious existence. It acts by its ferments; now elaboration of diastases implies metabolism and means: *Life*.

Bacteriophage is a parasite of the microbes in which it gives rise to an infection-like disease.

And, along the biological arguments, the therapeutic facts are striking -food successes against staphylococciai, typhoid fever plague, cholera etc. and against various epizootics and murrains.

SHINGLES and CHICKEN-POX (Herpes zoster)

Profs. Netter and Urbain state if those diseases are very different clinically, they have very close serological similarities.

The author succeeded in cross-complement-fixation, using as antigens the watery fluid or the subsequent scabs of the vesicles.

CHOLERA

Prof. Sanazelli 1. *Cholera Vibrios* are unable to go through the stomach whose acidity is too strong and kill them. These germs enter the mucosa of the throat, they walk towards the bowels by enterotropism, and cultivate within the intestinal mucosa killing the subject (rabbit or man) by intoxication.

2. From the experiments carried out on guinea pigs, it seems that Cholera is due to an association of *cholera Vibrio* plus *B. Coli*.

INFLUENZA.

Prof. Pfeiffer emphasizes the part taken by his own microbe *B. Pfeiffer* in sporadic cases and also in epidemics. But why, he went on, does this agent of which the virulence is so low in cases occuring singly, acquire suddenly, should the opportunity offered by pandemic scourge, the ability to spread the world over?

UNDULANT FEVER AND EPIZOOTIC ABORTION IN CATTLE (BANG'S DISEASE)

We know that both diseases are due to closely related organisms of the genus *Brucella*. This generic name from that

1.

-lutinins new well-marked hereditary
of *Sir David Bruce* who in 188?d groups have been demonstrated.
Micrococcus melitensis as the cause on the atypical human aggluti-

More later on, in 1897, *Bang* is numerous individual differ-
slipping cows. dings do not invalidate

It is a matter of fact that man contract
drinking raw goat's milk. But for some years the missic at cow's milk can also give rise to a similar infection (in man) by means of *B. abortus*.

Profs. Bang, Kling, Ringard report many studies on this kind of undulant fever, less common and severe than the true one, *B. abortus*, having a low pathogenicity to man, while it is able to produce transitory immunity (or, at least group agglutinins) against itself and *B. melitensis*.

LECTURES

Prof. Borrel. On Cultivation of cells and tissues.

Prof. Calrette. On Vaccination against Tubercle by means of B. C. G. (T. B. acid-fast modified by allowing it to grow, for 20 years on bile media).

Only in France, 2,58,000 children have been inoculated and the proportion of protections is such, that out of 100 children given over (mother with blood-spitting, cavities etc.) 93 have been saved.

Prof. Fullebosn. On Immunity and Allergy in worm-diseases.

Prof. Martin and Ramon. 1. Diphtheria antitoxin is now dosed, no longer by injections to guinea-pigs, but by floculation in vibro of a mixture of the toxin and the serum in question'. It is a lot of real savings.

2. In the year 1923, Prof. Ramon showed that the diphtheric toxin, treated by formaldehyde and heating, undergoes very interesting alterations. It loses its toxicity, but keeps its antigenic power.

So, now, the treatment of horses by that *antitoxin*, in order to make up therapeutic sera, has been made very much shorter : four or five weeks instead of four or five months. So, gain of material, of time, of money.

3. The diphtheric antitoxin has been used for the protection of children and adults against diphtheria —3 injections are necessary no reaction at all; out of 100, 98 protected.

At the present moment many millions of subjects have been inoculated in France, Canada, U. S. A., Belgium etc.

Gleanings from Medical Press

SURGERY.

After-treatment of the Simple Mastoid Operation.—E. R. Roberts (*Arch. of Otolaryngol.*, May, 1930, p. 583) reviews the methods in common use in the treatment of mastoid wounds. The complete removal of all necrotic bone and the opening of all cell galleries is, of course, a necessary preliminary to any successful treatment. Complete closure of the wound, the so-called blood-clot method, is described as unsafe and unsurgical. Excellent results are obtained by leaving the wound widely open and packing with gauze soaked in chlorinated soda solution, enabling healing by granulation to take place from the bottom. Although this method produces a sound scar, it is very long, tedious, and obviously unpractical for routine use in private practice. Roberts's method is based on the principle of the after-treatment of accessory sinus operations namely, by providing for aeration and drainage. At the operation the cavity is packed with iodoform gauze, and the wound is closed, except at its lower end with silkworm-gut sutures and clips alternating. The primary dressing and the sutures are removed on the fourth day. A fenestrated rubber drainage tube is then introduced into the wound down to the antrum, and is fixed in position by means of a perforated piece of gauze and a liquid adhesive preparation. The tube is passed through a hole in the gauze, and the gauze is fixed to the skin by adhesive plaster. No further dressing is used. The cavity is allowed to drain and is daily irrigated with a solution of chlorinated soda. After all discharge has ceased the tube is discontinued.—*B.M.J.*

Fracture of the Carpal Scaphoid.—David Berlin. (*New England Journal of Medicine*, September 19, 1929) discusses position in the treatment of these fractures, and summarizes the results of his observations as follows: 1. The dissections of sixty wrists disclosed that the major portion of the ligamentous structure springing from the dorsal carpal ligament gains insertion on the proximal two-thirds of the dorsal surface of the navicular (O. T. Scaphoid) bone. Since the dorsal carpal ligament is placed under tension with the hand in flexion, the navicular ligamentous

slip, springing from it is likewise rendered taut and pulls the proximal fragment away from the distal one. 2. The approximation of the broken fragments is distinctly favored by the tendons of the flexor carpi radialis and the flexor policis longus. They act together as a sling to the navicular bone on its volar surface when the hand is placed in extension. 3. The small lateral interosseous ligament in the proximal row of the carpal bones is placed under tension when the hand is flexed to either side and in a minor degree displaces the fragments by tending to produce lateral angulation. 4. The radial collateral ligament stretching from the radial styloid to the tubercle of the navicular, by the nature of its attachment, favors better alignment of fragments when the hand is extended to the radial side. 5. The position of choice in the treatment of carpal navicular fractures is about 45 degrees extension of the wrist with radial deviation, avoiding extreme or forced extension.—*I.J.M.S.*

Testicular Extracts In the Tropical Treatment of Ulcers.—Rho, in *The Journal of Tropical Medicine and Hygiene*, for April 15, 1930. discusses the treatment of ulcers, especially varicose ulcers, by the external application of thin slices from the fresh testicles of guinea-pigs and rabbits.

This method was described by Aievoli in 1890. The Italian author stated that he had by this method often brought about the rapid healing of ulcers. In 1918, Richet described the intensive acceleration in the healing of wounds by the application of testicular pulp.

The author cites the favorable experiences of a large number of authors and then proceeds to discuss his personal experience. He had an ulcer the size of half a crown on his leg, resulting from trauma. This resisted all ordinary treatments. After six weeks he dressed the wound with a glycerinated extract of testicular substance. He put a few drops of this upon the sore every other day, and in less than a fortnight the wound was entirely healed. He recommends the treatment for resistant ulcers of all sorts and states that a glycerinated extract keeps well in all climates, not losing its potency even when stored for a long time.—*U. & C. R.*

Peptic Ulcer of the Oesophagus.—As peptic ulceration of the oesophagus (so termed from its resemblance to gastric ulcer) has hitherto been diagnosed only at post-mortems, Chevalier Jackson anticipates that the development of oesophagoscopy will prove it to be commoner than has been supposed, its characteristic symptom is retrosternal pain or discomfort extending to the back, and usually commencing half an hour after a meal, although the act of swallowing may cause tenderness and immediate pain. In three-fourths of the patients heartburn or water-brash were complained of, and in a number haematemesis or melaena were present, death even ensuing in one from haemorrhage. Occasional vomiting may occur especially if the ulcer has caused a constriction. The immediate relief of the pain by alkalies suggests the contract of acid secretion regurgitated from the stomach, but the evidence is overwhelming as to focal infection being the prime etiological factor. After the elimination of septic foci and dietary regulation, the direct endoscopic treatment of the ulcer is recommended. (*Journal of the American Medical Association.* xcii. 5).—*Medical world.*

The Prophylaxis of Syphilis.—Takatsu, in *Acta Dermatologica*, for April, 1930, describes experiments upon rabbits to test the prophylactic value of various chemicals against syphilis.

He employed quinine, calomel, salvarsan and trypaflavine. He found that the ordinary calomel ointment would not prevent infection even when rubbed in immediately. The same thing is true of a 40 per cent quinine ointment. Powdering with calomel was somewhat more effective, although a delay of as much as five minutes rendered it entirely worthless. A 10 per cent salvarsan ointment applied immediately was effective, and even when employed after a delay of five minutes, only one of six animals were infected. After thirty minutes its use had no effect.

Spirocid taken by mouth is possibly of some value, but locally it is worthless. Trypaflavine applied as a powder immediately protected all the animals, but after a delay of five minutes, an occasional infection occured. Tincture of iodine applied immediately was also effective.

He concludes that the salvarsan ointment, trypaflavine powder and tincture of iodine employed immediately offer an absolute protection. Calomel when used at all should be used as a powder. A one per cent solution of salvarsan has approximately the same effect as the 10 per cent ointment.—*U. & C. R.*

The Repair of Fractures and the Local Use of Calcium Salts.—Clay Ray Murray, in *Minnesota Medicine* (March, 1930), gives an exposition of the repair process in fractures that presents a more rounded and comprehensive picture than one usually sees. His views, which seem to be well supported by experimental evidence and numerous plates, may be summarised as follows;

fractures heal (unless there is mechanical bar to tissue growth) by the growth of granulation tissue as in wounds. This is derived from the wounded soft parts of the bone, periosteum, endosteum —and the areolar tissue about the vessels in the marrow cavity and elsewhere. If there is tearing of the periosteum it is derived from the soft parts about the bone as well, in proportion to the access allowed them to the fracture site. Sometimes the major part of this granulation tissue comes from the soft parts about the bone.

Calcification through calcium derived from dead and otolized bone at the site of fracture and not from the blood-stream is the secret of healing. Delayed union or non-union represent partial or total failure of the healing tissue to calcify. Vascular changes probably induce local tissue P^h changes which may strongly influence precipitation of calcium salts from solution or colloid combination or ferment activities on large radicles of organic calcium salts—such as hydroxyapatite or calcium hexose phosphate. Given tissue death, a local calcium source, a vascular status producing the proper P^h and granulation tissue, bone will form without the presence of any bone cell.

The administration of calcium or phosphorus by mouth is ineffective. If calcium is needed it must be supplied locally and the author has used inorganic and organic salts of calcium (hexose phosphate) in powder form locally in the gap. Either precipitation or ferment splitting activity may be responsible for the calcium deposition; the latter seems the more probable.

Bone and soft part circulation are of prime importance in the process of fracture healing and should, therefore, be prime objects of attention early in the bone healing process. The time to use elevation, heat, massage, diathermy and active exercise is at that time, if possible; it is much more important than later in the course.

Local Compression Therapy in Pulmonary Tuberculosis.—F. S. Dooley (*California and Western Medicine*, April, 1930) thinks that in chronic productive infraclavicular tuberculosis with general pleural adherence where healing is prevented by the presence of one or more small cavities, the procedure that will sacrifice the least amount of lung tissue with minimal danger to the patient is pneumolysis with local pulmonary compression. Pneumolysis is the initial precedure in local surgical compression. Alone it is seldom successful because of return of the lung to its original position following contration of adhesions. **Re-expansion can be prevented in two ways by tightly packing the place created by the lung collapse with rubber tissue filled with gauze. After**

8 to 12 days this is removed and the wound packed wide open allowing the space to heal by granulation. Another method is by insertion of a substance not to be removed such as fat, muscle, fascia, etc. Paraffin is probably the most efficacious as it shrinks little and is practially non-irritating. The advantages of pneumolysis with local pulmonary compression are: 1. The operation is a comparatively minor one and is attended with little or no shock. 2. Paradoxical respiration does not follow, so the danger of aspiration into the lung area is minimized. 3. The sacrifice of actively functioning lung tissue is very little. 4. It can be carried out bilaterally where other procedures are contraindicated.

Its disadvantages are: I. Rupture into pleural cavity. If the pleural leaves are not solidly adherent, an extensive pleuritis that often proves fatal may develop. If pleural space is well walled off the pulmonary abscess drains externally sometimes persisting for years. 2. Occasionally long after implantation the area surrounding the paraffiin may become infected, demanding the latter's removal. Rib resection and gauze tamponade is then the resort of choice.—*I.J.M.S.*

MEDICINE

Indication, Mode of Action and Dosage of Injections of Hypertonic Solutions of Sodium Chloride in Intestinal Occlusion.—R. Dennis (*La Presse Medicale*, February 8, 1930) claims that high intestinal obstruction is followed by dehydration of the fluids of the body with a diminished amount of sodium chlorides left in the blood. This condition should be prevented previous to operation for gastroenterostomy and following same. The intravenous injections of hypertonic salt solution is the preferable method to be used. This disturbed metabolism should be relieved previous to the operation. Postoperative use of sodium chloride relieves the tenacity of the muscles of the intestine and makes miraculous cures. The effect of the sodium chloride is more noticeable the higher the obstruction is in the intestinal tract, and naturally it acts better in relieving the patient who has suffered a greater loss of chloride by vomiting or stomach lavages. The dose depends upon dehydration at the time it is administered.

There has been very little attention paid by the average operator to the dosage of salt solution given. If the obstruction is high in the intestinal tract and there has been constant vomiting, with dry tongue and superficial respiration, a sensitive abdomen, the author injects 20 c.c. of 20 per cent solution intravenously every hour until the operation is performed. Following this

operation he gives 40 c.c. of 20% solution every four hours for the first twenty-four, which is followed by smaller doses. If the intestinal obstruction is due to adhesions the results are looked upon as more favourable. If it is due to biliary complications it is less favourable. Strangulated hernia receives 30 c.c. of a 20 per cent sodium chloride soluiion. For occlusion of the pylorus in an intestinal obstruction he recommends 20 to 40 c.c. of salt solution given intravenously previous to the operation and following it. There is danger of pain and necrosis should the 20 percent solution be injected outside of the vein.—*Compend of Medicine and Surgery*, July, 1930. -*The American Medicine.*

Syphilitic Anaemia.—J. Hatziegan has observed that the anæmia which may arise in the course of syphilis is very much more marked in women than in men, and particularly so in those in whom the aorta is involved; in men similarly affected the anæmia is generally replaced by emphysema. As the seven women-patients he refers to had all reached the climacteric, Hatziegan suggests a possible connection between the condition and the dysfunction of the ovary; the latter being accepted as a cause of anæmia, while aortitis is uncommon before middle age. (*Paris*: *Bulletin de la Societe Medicaie des Hopitaux. XLVIII.*) H. Mouradian traces the anaemia of syphilis which persists during treatment to the effects of arsenical poisoning in decreasing metabolism, most probably from its action upon the liver. In his experience of eighteen patients who were tuberculous before contracting the syphilitic infection, the anaemia already present was greatly increased as soon as courses of arsenical treatment were instituted. Mouravian has found arsenic to have a disastrous influence on the course of tuberculosis, even to causing fatal exacerbations; he points out that while mercury may be beneficial to tuberculous lesions arsenicals may actually light up an unsuspected one. (*Paris*: *Annales des Maladies Veneriennes. XIX*).— *Medical World.*

The Treatment of Hyperpiesia By Intestinal Douches.—The cause of an increase in blood-pressure continues to be one of the baffling problems of medicine. Many theories have been advanced to account for the development of this condition, but the real cause has not yet been demonstrated. Long-continued autointoxication from some septic focus is believed by many investigators to be an important factor. In the opinion of

Dr. A. A. Bisset (*Practitioner*, Feb., 1930, cxxiv, p. 241), chemical substances of a "pressor" nature may possibly be manufactured as derivatives of bacterial activity in the intestines, especially in the colon. According to Langdon Brown, intestinal stasis will cause a pressor effect. That such pressor agents may be very active in raising the blood-pressure has been demonstrated by Kamm.

Based on this theory of the colon as a possible source of pressor substances, a series of cases of essential hypertension have been treated with intestinal douches. All these cases were examined carefully to exclude any evidence of renal changes or renal insufficiency. Twenty-five men and thirty-seven women were treated with intestinal douches for varying periods, usually from two to four weeks, each case being treated on its own merits. In douching, the strong sulphur water of Harrogate was used in quantities of from 20 to 40 ounces at a temperature of from 100° to 104° F., and with a pressure of from 18 to 24 inches. Some of the cases, owing to idiosyncrasies, had smaller quantities and even lower pressure. Blood-pressure readings, taken before and immediately after the douche, showed decreases that varied from 10 to 40 mm. Hg.. the pressure rising again to nearly the original figure in the course of twelve hours but showing a definite decrease over a period of days.

Dr. Bisset finds it difficult to explain the rapid fall of arterial tension during the douche. Although the sulphur water of Harrogate exercises a marked bactericidal effect on *B. coli* and several of the streptococci and staphylococci of the intestine, the disinfectant effect would probably not be apparent in such a short time. The temperature of the sulphur water from (102° to 104° F.) may cause a depressor effect by dilating the blood-vessels of the colon. It may be also that some of the histamin, which, according to Dale (*Jour. Physiol.*, 1911, xli, p. 499), is contained in the intestinal mucosa, is liberated into the circulation in quantities sufficient to exert its depressor effect on the blood-pressure. If this supposition is correct, Dr. Bissett submits, it may be argued that a possible cause of essential hypertension may be a lack of balance of the pressor and depresssor substances in the human-body. The decrease that is observed over a course of two or three weeks is probably due to the removal and elemination of pressor toxins and harmful bacteria from the colon and to the therapeutic effects of the sulphur water on the mucous membrane of the colon.

Dr. Bisset presents a table showing that the average fall in systolic blood-pressure was 37·6 mm. Hg. in the men and 32·5 mm. Hg. in the women. The corresponding figures for the diastolic

pressure were 13·7 mm. Hg. and 10·5m Hg. Following the decrease in blood-pressure, the cases were again examined by the urea concentration test (McLean), and were found to have increased power in urea concentration, but this increase in power was not in any way proportional to the fall in blood-pressure. From this, it may be assumed that a fall in blood-pressure does not impair renal function and that hypertension is not compensatory as regards the function of the kidneys.

A certain number of cases of high blood-pressure associated with arterial or renal changes were also treated by intestinal douching, but did not show any improvement on this form of treatment alone.—*Medical Hearld.*

Intermittent Claudication.—J. Heitz has had opportunity of observing twelve cases of intermittent claudication in every one of which the patients were the subjects of angina, the presence of one woman among the group being a point of interest. He claims that although the coincidence of the two conditions is not often apparent they depend on the same causes, the phenomena of the claudication being primarily due to ischaemia from spasm of the tibial arteries, but chiefly to tension of the peri-arterial sympathetic plexus from the distension of the vessels above the seat of the contraction. C. Lian and P. Descoust put great reliance on diathermy for the relief of this condition. But of five patients in whom it was repeated twenty times on alternate days at three-monthly intervals two were cured and one was improved, the others being old-standing cases with probably obliterated vessels. Although the spasm of the arterioles is dissipated completely, Lian and Descoust believe that the chief benefit of diathermy lies in its stimulating effect upon the local structures. Their experience is that it is more generally satisfactory than any other method, but dietic treatment should also be pursued. (*Paris: Aschives des Maladies du coeur. XVII.*)—*Medical World.*

Conservative Constipation Therapy.—Cornwall, in the *Medical Times* (July, 1929) thinks that Nature's rule of one daily evacuation has exceptions in which constipation is permissible or even advisable. Thus typhoid fever patients who are constipated generally do better than those who are not constipated; and he has seen a lowered mortality rate follow adoption of a conservative policy in regard to the artificial induction of bowel evacuations in this disease; instead of forcing a daily bowel movement. He gives the enema every second or every third day if needed. Similarly,

in pneumonia he thinks moderate constipation better than forced daily evacuation provided the alimentary tract is otherwise safeguarded. It must be borne in mind that after the colon is thoroughly emptied it may require two days for a sufficient quantity of feces to accumulate to make a normal stool.

The purging tradition has come down to us as a remnant of the doctrine of humoral pathology and at the beginning of sickness the first therapeutic thought is often to purge the patient whether he needs it or not. The consequent frequent getting out of bed and into cold water closets may often lead to complications or relapses.

In chronic constipation hygiene and diet are the first words; cathartics and enemas the last words. A lacto-vegetarian diet is often better than one containing animal flesh. Roughage is good as local exciter of peristalsis but it must be remembered that not all constipation is atonic. Hypertonicity may be present which contraindicates roughage. There are cases where bran and whole wheat bread do not act well. Here the milder roughage may be indicated such as rye bread, oatmeal and green vegetables ranging from raw cabbage to cooked squash. He considers that tomato has decided merit as an anticonstipation food, particularly in spastic constipation. It should be taken in good quantity at night, and preferably cooked. It acts no doubt by its acid as well as by its scanty roughage. A ripe banana, thoroughly chewed, and the alligator pear have a place in spastic function. The acids, sugars and salts of fruits and vegetables and the vegetable and animal fats, have laxative prpoperties; and water is the most widely useful of all the laxative foods, benefiting atonic and spastic constipation, and colonic and rectal constipation. Often we find that one or two glasses of cool water taken in the early morning will do the trick.

In markedly spastic constipation and in rectal constipation much roughage is contraindicated. Here water, acids, oils and sugars are useful.

He describes as a valuable diagnostic test the response of the collon to roughage and to irritant cathartics. If bran fails to act favourably, hypertonicity is suggested; and if a locally irritant cathartic acts with little or no griping in one case of constipation but produces considerable griping in another, the inference is suggested that the former is of the atonic type and the latter of the spastic type. This diagnostic test can aid us greatly in arranging diets and selecting cathartics.

Cathartics and enemas should be the last word. He warns against excessive use of the salines and thinks that in spastic and rectal constipation mineral oil has special advantages. In the constipation of mucous colitis a small enema of olive oil

introduced at night to be retained often produces satisfactory evacuation the next day.

Among enemas for general use, besides the familiar soapsuds enema, he has found an enema made with one dram or a little more of powdered oxgall dissolved in a pint of water, to possess advantages.

He concludes by registering a protest against frequent and long-continued use of colonic irrigations. *I. J. M. S.*

OBSTETRICS AND GYNAECOLOGY

Relations between the nose and the genital organs. A large number of investigations that have been carried out recently in the Rhino-Laryngo-Otology Clinic in the Saratow University have shown that certain pathological processes in the nasal cavity are not local but influence the entire organism. Some of these relations are difficult to explain. For instance, Dr. N. Karpow (*Monatschr. f. Ohrenh.*, July, 1929, lxiii, p. 758) quotes Prof. M. Zitowitsch, who noted in one case the disappearance of Raynaud's disease after an opperation on the nasal cavity. Dr. Karpow, who has studied the problem in detail, differentiates three groups, in the first of which certain symptoms in the genital organs are evidently caused by changes in the nasal cavity. He mentions:

1. Disappearance of dysmenorrhea after instillation of cocaine solution, after cauterization and electrolysis applied at various portions of the nasal cavity.
2. Lessening of the severity of labor pains, also arrestment of vomiting in pregnant women, after instillation of cocaine solution in the nasal cavity.
3. Disappearance of sex perversions after removing pathological lesions in the nasal cavity.
4. Relief of sterility after treatment directed at the nasal cavity.
5. Abortion after cauterizing the turbinates or removing the turbinates.
6. Impotency developed after resection of the nasal septum

Group II includes those nasal manifestations that occur because of changes in the genital organs. They are:

1. Anosmia after removal of a uterine myoma.
2. Nasal occlusion and sneezing disappearing after gynecological treatment.
3. Epistaxis occurring under the influence of sexual excitement, especially during coitus; also epistaxis after operations on the sex organs.

The third group includes cases in which a vicarious function seems to exist. These are:

1. Numerous cases of amenorrhea in which monthly attacks of epistaxis occur.
2. Epistaxis in patients with defective development of the sex organs.
3. The absence of vicarious epistaxis in castrated women.

In order to investigate these problems in greater detail, certain experiments were undertaken. For instance, the lower turbinates were removed in rabbits and pups six weeks of age, the untreated controls coming from the same litter. The operated animals were backward in their development as compared with the control animals. It was observed that if the lower turbinates are extirpated from the young animals, the sex organs persist in the fœtal state during life. The animals are sexually indifferent, and the females refuse to admit healthy males. It is claimed that, in all probability, the relations between the sexual and the nasal organs depend upon certain endocrine processes.

From the results of these experiments, Dr. Karpow conludes that the tissues of the turbinates produce a substance that exerts a specific stimulation of the nerves and muscles of the uterus. He discusses various questions that arise from his findings, mentioning that the problem requires further study.—*Medical Herald.*

A Test of Labour. Lafferty, J. M., *Am. J. Obst. & Gyn.* 19: 647, May 1930.

Tweedy's rules are:—First, determination of the maternal pulse and temperature every two hours, or more often; second, a count of the fetal heart sounds every two hours, or more often; third, when the pulse and temperature of the mother rise above 100° F. interference is indicated on behalf of the mother; fourth, when the fetal heart sounds rise above 160 or fall below 120 on three consecutive counts, at one minute intervals, interference is indicated on behalf of the baby. The only contraindication for applying the test is an elevation of the mother's pulse and temperature: or fetal distress due to factors other than labour. The test is indicated in all labours except the relatively infrequent ones when the best obstetric judgment indicates that no labour should be permitted.

The advantages of the Tweedy test of labour are:—First, it is scientific, being based on observed physical findings, and not on individual judgments which are apt to be influenced by many extraneous factors; secondly, it is easily carried out, nurses with

few exceptions being readily trained to obtain the necessary data and on several occasions lay persons have been able to count the pulse and fetal heart sounds and to take the temperature; thirdly, if general practioners were taught to use and rely on this guide much unwarranted and pernicious interference with labour would be avoided, and it would add greately to their confidence in managing long tedious labours; fourthly, if patient and relatives can be assured that the attendant has definite and accurate means of determining when interference is demanded it relieves them of worry and uncertainty; fifthly, the general adoption of such a standard test would enable us to compare more accurately the indications for the various obstetric operations.

The Tweedy test of labour has proved its value in fourteen years of careful clinical trial at St. Mary's Hospital, Philadelphia, and has rarely failed to indicate distress of mother or fetus in time for proper interference to be carried out. It has frequently saved women from dangerous operative deliveries. A number of times it has indicated the need for interference when no such need was suspected. It has shown very definite results in the management of the complication of labour. It failed to warn in time or at all in only 13 per cent of 231 serious complications of labour. It had a very definite effect on the operative rate, positively, by indicating the need for operation in 6 per cent of the cases where the primary status did not reveal any need, and, negatively, by decreasing the operative rate 6 per cent in cases where the primary status would have justified operation. It has been a factor of considerable importance in the production of a low maternal and fetal morbidity and mortality rate. The confidence which the Tweedy test gives one in managing a labour, especially a long tedious case, is a very important benefit to the physician.

The Occipito-Posterior Case. Miller, D., *Brit. M. J. 1*: 1036. June 7, 1930.

The ante-natal diagnosis of an occipito posterior position by abdominal examination should be a matter of reasonable certainty in most cases, unless obesity, rigidity of the abdominal wall, or excess of liquor amnii constitutes an unfavourable condition. The head tends to occupy a higher level than usual, and it frequently remains freely mobile after the time that engagement should normally have occurred. On vaginal examination the anterior fontanelle is readily felt. The exact position which the head occupies may be determined by the introduction under anæsthesia of as much of the hand as is necessary to palpate the ear. If the forceps has already been applied without an exact knowledge of

814

few exceptio
and on seve
pulse and f
if general
much un
be avoide
aging lo
be assu
deter
wo
f

Vigantol

the standardized Vitamin-D preparation

promotes bone-growth and muscle-development

facilitates healing of bone-diseases, e.g. brittleness, tuberculosis of the bone, and fractures.

prevents disturbances in teeth-formation and favourably influences the breaking through of teeth and the growth of a firm enamel,

increases the appetite and general metabolism,

raises the defensive powers of the organism of infants and young children against disease,

aborts rickets,

protects the mother during pregnancy and the nursing period from deficiency of calcium as evidenced by deterioration of the teeth, and pain in the joints, bones, and muscles.

ORIGINAL-PACKINGS:

'Vigantol' Oil: Bottles of 10 c.c. and 50 c.c. (1 c.c. contains 50 clinical units).

'Vigantol' Pellets: Bottles of 50: (1 Pellet contains 10 clinical units).

Jointly Manufactured by

G. Farbenindustrie Aktiengesellschaft Pharma, Dept.,
Bayer-Meister Lucius
Leverkussen.

E. Merck,
Darmstadt.

ters :-
O TRADING CO., LTD.,
CUTTA, P. O. Box 2122.

Sole Importers :—
MARTIN & HARRIS,
Rowlette Building, Prinsep Street,
Calcutta.

DEPENDABLE ERGOT

StaffAllenS

Physiologically Standardised

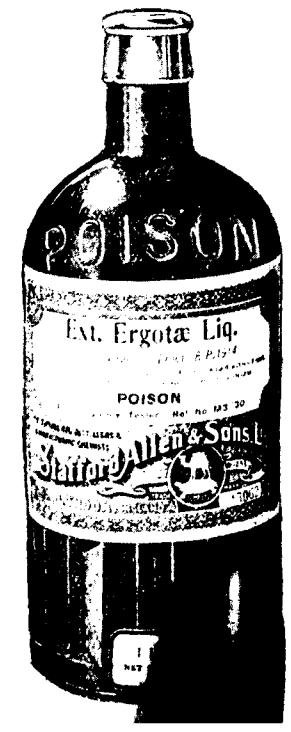
EXT. ERGOTÆ LIQ.

The physiological action of ergot is very variable, some samples being quite inert. In the absence of any reliable chemical method of assay, resort must be made to a physiological test.

Every batch of StaffAllenS Ext. Ergotæ Liq. is physiologically tested and a certificate of its activity obtained before it is passed for sale.

Physicians can therefore place complete reliance in this preparation when sold under StaffAllenS' label.

Specify "StaffAllenS"



STAFFORD ALLEN & SONS, LTD.
Cowper Street, London, E.C.2
Indian Representative:
H. B. TILDEN, Poste Restante, Bombay

the position of the head, suspect occipito-posterior position if difficulty is experienced in approximating the handles of the instrument, if more than moderate traction is required, if the forceps tend to slip, or if the perineum appears to be stretched by the handles or lower part of the blades, rather than by the advancing head.

Before onset of labour a posterior position may be converted into an anterior by the use of pads, as described by Buist. When the pads are in place the patient should lie semi-prone on the side opposite to that occupied by the child's back. After the onset of labour the extent of difficulty which a posterior position may cause is commensurate with the amount of deflexion of the head. In order to encourage forward rotation, once the head is engaged, the patient is instructed to lie on the *same* side as that occupied by the back of the child. In possibly 15 per cent of cases flexion is imperfect and may arrest or delay the head at the pelvic brim, or, latter, may result in the occiput remaining obliquely posterior or rotating backward into the hollow of the sacrum.

With arrest at the pelvic brim or on the pelvic floor manual rotation of the head should be carried out. (1) The patient is placed preferably in the lithotomy or crossbed position. (2) That hand is employed which can most conveniently grasp and rotate the head, *e.g.*, the left hand in a right occipito-posterior position and *vice versa*. (3) Before rotation is attempted the head should be dislodged upwards a little and flexed, so that it may turn more easily. (4) An attempt should be made simultaneously to rotate the body by external manipulations, or by passing two fingers of the hand in the vagina beyond the head and on to the anterior shoulder of the child. (5) To maintain the head in the corrected position the *right* blade of the forceps may be introduced first.

Delayed engagement of the head, especially in the last week of pregnancy in a primigravida, implies relative extension, which may interfere with descent and ultimately produce malrotation of the occiput. The value of Buist's pads consists in the fact that it is precisely in this type of case which is potentially troublesome that they are most frequently successful. When the head enages normally and the membranes remain intact till the end of the first stage satisfactory flexion may be inferred, and the occiput will probably rotate forward spontaneously if given time. In this group, which comprises the majority of occipito-posterior cases, conservatism may confidently be practised.

In the majority of persistent occipito-posterior cases there are clear indications at an early stage of labour that this complication

is likely to occur. When such warning signs exist, anticipate the difficulty associated with backward rotation by correction of the mal-position before the head becomes firmly imbedded in the tissues of the pelvic floor. Such intervention is called for in not more than 10 per cent of all occipito-posterior cases and is warranted only when a diagnosis of faulty flexion can be made with certainty. In these, however, the avoidance of needless suffering and of the difficulties and dangers incident to the management of the impacted mal-rotated head seems to justify a departure from the policy of conservatism otherwise so generally applicable.

Correspondence.

We have been asked to publish the following :—

I

Under the auspices of the All-India Medical Licentiates Association, Madras Branch, a meeting of the Licensed Medical Practitioners was held on 15-10-'30, at No. 323. Thambu Chetty St., Madras, and the following resolutions were passed unanimously : —

(1) This meeting of the Licensed Medical Practitioners of Madras, while approving the formation of an All-India Medical Council, respectfully suggests to the Government of India that the proposed council should be constituted on the same lines as the General Medical Council of Great Britain including in its scope all Registered Medical Practitioners in India.

(2) While appreciating the idea of attaching the Research Institute to any one of the University centres, this meeting is of opinion, that in the matter of appointments and the granting of Research scholarships, the claims of all the Registered Practitioners in India should be taken into consideration irrespective of the qualifications, whether they are graduates or persons holding British Registrable qualifications or otherwise, basing the choice of the candidates solely on merit, special aptitude, previous training and experience in the line.

(3) This meeting authorises the Chairman, Dr. U. Rama Rao to forward the copies of the above resolutions to the Government of India, Director-General of Indian Medical Services, the Minister of Public Health, Madras, the Home Member, Madras, the Surgeon-General with the Government of Madras, the President, Madras Medical Council, and the Press both lay and medical.

II

A Meeting of the Registered Medical Practitioners at Bellary, was held in the premises of the "Sita Rama Pharmacy, Medical Stores and Dental Hall, Bellary," on the 20th October, 1930, under the presidency of Dr. I. Govindarajulu, L.M.P. It was attended by almost all the Medical Practitioners of the station, both private as well as in the service of the Government and the following resolutions were unanimously passed :

(i) Resolved that this meeting most respectfully suggests to the Government of India, that in the proposed working of the ALL INDIA MEDICAL COUNCIL BILL, it is desirable that, in the interests of the public and of the Medical Profession as well, all the Registered Medical Practitioners should be included in the scope of the Bill, as the purpose of such a Council is not only to standardise Medical Education but also to have a check on independent Medical Profession as a whole, in the exercise of the special rights and privileges enjoyed by them, by virtue of their being Registered Medical Practitioners.

(ii) While approving of the idea of attaching an All-India Research Institute to any one of the existing University centres this meeting is of opinion that, in the matter of appointments and granting of research scholarships, merit, special aptitude, and previous training of candidates, and their experience in the line should be taken into consideration, irrespective of their being Graduates of a University, persons holding British Registrable qualifications or otherwise.

III

TO

The Rural Medical Practitioners of the Madras Presidency.

It is proposed to publish in booklet form for the benefit of the rural medical practitioners all the govt. circulars, and other rules pertaining to the Rural Medical Relief Scheme ; the approximate cost of a copy of which would be about half a rupee. As funds are

required for the initial expenses, all rural practitioners that are in arrears of their subscription are requested to remit the same to me without any further delay. Copies of the booklet can be had from me as soon as they are ready.

VIRAGANUR,
Salem Dt.
4—9—'30.

S. RAMASUBBU, L. M. & S.,
Secretary,
The M. P. R. M. P. Association.

IV

Dr. MANGALDAS V MEHTA, O.B.E., F.R.C.P. (I). F.C.P.S. (BOM.) B.A., J.P.L.M. & S (BOM), L.M. (ROTUNDA) and R.C.P.I.

He is the first Indian to be elected Fellow of the College of Physicians of Ireland in the United Kingdom of Great Britain and Ireland in the year 1920.

As a result of the Midwifery Commission of 1921, to enquire into the facilities for Midwifery training in India he conceived the idea of establishing a central Maternity Hospital in the labour area of Bombay, and started with six beds in the year 1922, with the kind assistance of Sir Ness Wadia, the donor, as an experiment. This proved a success and the Hospital was put on a permanent footing by erecting a modern and up-to-date building near theHaffkine Institute at Parel, in Bombay, in December 1926, with 120 beds solely for Maternity purposes. It was then extended to have full accommodation for 150 beds and it has received tribute from Dr. Haig Ferguson of Edinburgh, a colleague of Sir Norman Walker, who says that "the Nowrosijee Wadia Maternity Hospital is in the forefront of Maternity Hospitals in India, both as regards structural qualities and large and useful amount of work turned out." This Hospital is known not only throughout India but all over Europe. Dr. Mangaldas V. Mehta is a distinguished Rotunda man and he started the Nowrosjee Wadia Maternity Hospital as a miniature Rotunda Hospital, but it has outgrown the Rotunda since the last two years.

In recognition of this noble and honorary work the University of Bombay has accepted a sum of Rs 30,000 from the donor of the Hospital, Sir Ness Wadia, for the foundation of a gold medal and a research scholarship in the name of Dr. Mangaldas Mehta as a token of appreciation of his inestimable services in the cause of obstetrics in Bombay and thus encouraging the study of Midwifery and research therein.

Dr. Mangaldas Mehta comes from a highly respectable and influential family and has devoted his life to the cause of Obstetrics. His activities in this connection, in addition to the Honorary work at this Hospital, are far and widespread in the Bombay Municipal Corporation, the Bombay University, and as Honorary Secretary of the Bombay Presidency Infant Welfare Society.

Government have recognised his services in the Infant Welfare Society by creating him an Officer of the British Empire.

Book Reviews

Clinical obstetrics.—By Paul T. Harper, Ph. B; M. D., 1930 Pp. 629 Price $ 8·00, illustrated. Philadelphia. F. A. Davis Co.

In this book the author has presented vividly the natural process of parturition, the various abnormalities of pregnancy and difficult labour.

It is an admirable reference-volume on obstetrics for those that have already acquired the elements of obstetrics, while, the students and practitioners will find in it many useful hints and suggestions on clinical obstetrics.

All the unnecessary rare complications that usually tax the students are completely eliminated, thus rendering it an easy reading for the student. Some of the difficult conditions as asynclitisim, Bandl's ring, etc., are described fully and in a clear manner.

The chapter on toxaemias of pregnancy is very good and contains detailed descriptions of the Stronganoff method, the rotunda treatment, the modified routunda treatment of Hopkins. The author has left nothing to the imagination as regards details of operative technic, when operative interferences are indicated.

The text is copiously illustrated from the drawings by the author himself which greatly help to understand the subject-matter.

The book is entirely novel in its arrangement and setting and should prove of real value to all the practitioners engaged in obstetric work.—*V. C. S.*

A Text-Book of Hygiene.—By J. R. Currie, M. [illegible] D. P. H. M. R. C. P. pp. 844 xxix. with 110 illustrations. Price Rs. 20-4-0 net Edinburgh : E and S. Livingston. Can be had from Messrs. Butterworth & Co. (India) Ltd., Calcutta.

This book is intended for the use of the students of medicine and Public Health.

The first six chapters of the book deal with ventilation, heating, lighting, water-supply, and disposal of sewage.

A complete section is devoted a to consideration of the Public Health administration.

The rest of the book contains a very good discussion on topics such as housing, food, maternity and child-welfare etc. The sections on personal and general hygiene is well written.

Public Health acts and Sanitary law for England and Scotland are quoted at the end of each chapter which will be found useful for those engaged in public health service in either country.

The book is written with remarkable clearness and the classification is excellant. The illustrations and charts are very good and useful. After all is said we are afraid that the book is too full and descriptive to be of real use for students of medicine, at any rate in India, where the University curriculam does not demand such details from them for a qualifying degree in medicine.

However, we are sure it will be found invaluable by all those appearing for higher examinations in Public health and hygiene and those interested in this speciality.

Diseases of the stomach.—By Max Einhorn, M. D., Emeritus Professor of medicine at the Newyork, Post Graduate Medical School and Hospital, 1929. 7th Revised edition, Price $ 6'00. New York, William Wood & Co.

The seventh edition of this well known book has been thoroughly revised and rewritten. Wherever necessary, many of the recent advances in Gastro enterology have been included in this edition.

The various methods of examination devised and conducted by the author have been fully explained and lucidly written.

The author has stressed the value of recognising and treating the functional and nervous affections of stomach, and proper emphasis has been placed on such of those organic diseases with demonstrable pathologicial lesions. This section contains many practical suggestions and hints and will be found useful by all Physicians.

The book is well illustrated. The appearance, the type, and in fact, the whole make-up of the book is splendid.

It should be read by every one attempting to do anything with the diseases of the stomach.—*V.C.S.*

Souvenir of the Henry Hill Hickman centenary Exhibition.—1830-1930; at the Wellcome Historical Medical Museum, London. The Wellcome Foundation Ltd., 1930. P p. 85. 13 illustrations and 11 M.S.S. reproductions.

The records of history of anaesthesia for many years show that many physicians and Surgeons all over the world were attempting to find out a means of deadening pain during surgical operations.

Humphry Davy (1800) was the first to study the effects of inhalations of gases, and came to the conclusion that Nitrous oxide may be used with advantage during short operations. Though it was fairly known in the early part of 19th century that gases could be used to alleviate pain during operations yet no experiments were made to establish the practical utility of the method, until Henry Hill Hickman who actually made the attempt on animals, showed that gases could be used to produce insensibility during short operations.

The centenary of his death took place on April 2nd, 1930.

This is a handsome and liberally illustrated brief record of the history of anaesthetics, which gives a detailed account of the short life and works of Henry Hill Hickman—a country practitioner of Ludlow in Shropshire—to whom is due "the credit of appreciating the sufferings inflicted by surgical operations and the conception of means to alleviate them by the production of insensibility."

"He, though a young county practitioner, had the mind to see, the heart to feel what anaesthesia meant for humanity, and strove to move his profession in England and France to action."

The illustrations are very good and nicely reproduced, and the book constitutes a collection of documents pertaning to Hickman's work, published for the first time. This is a worthy memento of the centenary celebration of one who sought no praise, who asked for no worldly honour, and who had lived for the benefit of his day and for all the time.—*V.C.S.*

Bacteriology for Nurses. By Harry W. Carey, M. D., 1930 Third edition P p. 282, illustrated, Price $ 2.25 net. Philadelphia. F.A. Davis & Co.

In this third edition the author has included all the recent advances made in bacetriology and has brought it up-to-date. The author's aim in writing this book is to provide a book for nurses, and in this he has more than achieved his object.

The subjects are well arranged and all the salient points of procedure are given in simple language; most of the important types of bacteria are clearly described with the aid of accurate illustrations of their microscopic appearances. Series of laboratory exercises and demonstrations are given, which enhance the value of the book.

The book is clearly written and may be found useful as a text and refrence book for Nurses.

The Medical Museum: Modern developments, organisation and Technical methods. Based on New System of usual teaching. By S. H. Daukes, O. B. E. M, D., D. P. H. D. T. M. H., Director of the Wellcome Museum of medical science. Pp. 183, 44 illustrations. The Wellcome Foundation Ltd., 33 Gordon Street, London W. C., England.

This is a contribution of an extraordinary value to the medical teaching.

The idea of a medical museum as a teaching medium of great importance has not yet been fully realised in this country though it has always been regarded as a necessary adjunct to any recognised medical institution.

The usefulness and educative value of a medical museum will be well appreciated both by the profession and laity only when it is well equipped and arranged. Dr. Daukes describes in this book, an ideal museum, not a mere collection of dry bones or artificially presrved specimen, but a living entity, designed in a remarkable way by means of elaborate labelling and synoptical arrangement, that will not fail to meet the demands of those that seek after knowledge.

There is a good discussion of the technical methods used in the Wellcome museum of medical Science in the mounting, preservation and preparation of specimens, methods of exhibtion, and classification of material which will be found helpful to all the museum workers. We heartily congratulate the Wellcome foundation on their splendid achievement, and the author on his organising genius.

Allergic Diseases, their diagnosis and Treatment.—By Ray M. Balyeat, M.A., M.D., F.A.C.P. 1930, 3rd edition, Pp. 395, illustrated. Phildephia. F.A. Davis & Co., Price $ 5.00 net.

The author has given in this book a good description of asthma and hay fever, and the whole subject is treated on the basis of specific sensitization.

Much stress however, is not laid on the bacterial infection, abnormalities of nose and throat, as causative factors in the production of these diseases.

The aetiology of allergic conditions is fully discussed and the author states that the cause of these troubles lies on some peculiar sensitiveness or idiosyncracy of the sufferers to certain substances; and advocates the search for these substances, and desensitisation

of the patients to the particular substance as an effective means of combating these diseases.

The various offending pollens and the time of their appearance in the various districts of U.S.A. are given in a tabular form.

Some of the food-stuffs that are responsible for many of these allergic conditions are also given. The part played by face powders, scented talcs, bath salts, wheat flour, house dust, in the production of these diseases are considered in detail.

Fresh chapters on eczema. urticaria, migraine, Mucous colitus have been added in this edition.

The author includes Epilepsy as an allergic condition, and says it is possible in a few instances to relieve the condition by desensitization against the offending protein.

The book no doubt contains a fund of useful information regarding the allergic diseases based on sound scientific background, but we wonder how far it will be useful to us in India.

However, there is no gainsaying the fact that it will serve a useful guide to all the practitioners, in whatever clime, who will take the time and trouble to investigate the causes of allergic manifestations on a scientific basis.

We recommend it to all our readers with the sincere hope that it will rouse many of them to unveil the mysteries of allergic diseases in India.—*V.C.S.*

Handbook of Therapeutics. —By David Campbell, M.C.M.A., B.Sc., M.D., 1930 Pp. 411, E & S. Livingstone Edinburgh. Price Rs. 9/6.

Can be had of Messers Butterworth & Co. (India) Ltd., Calcutta.

This is a book which is sure to meet the student's need for a descriptive text book on therapeutics.

The introductory section deals exhaustively with the management of the patients, in general, followed by a discussion on the therapeutic measures necessary for the diseases of the various systems.

In addition, the book contains seven chapters devoted to subjects like the "prescription", "water as a therapeutic agent", "heat, cold and climate", and 'Diet' wherein are given many useful suggestions and practical hints which will be greatly appreciated both by the students and general practitioners alike.

The last chapter of the book deals with Emergency therupeutics, and subjects like Asphyxia, shock, Blood transfusion, Circulatory failure, Acute and chronic poisoning, burns etc., all of which will repay a careful reading.

There is also an appendix containing posological table, and one on incubation and quarantine periods in infectious diseases.

The book is lucidly written, and can be confidently recommended to students and practitioners.—*V.C.S.*

Diathermy in the treatment of Genito-urinary Diseases.—By Budd. C, Corleus, M. D., F. A. C. S. and Vincent J. O'conor, S. B., M. D., 1929, Revised edition, pp. 199, Saint Paul, Minneapolis, The Bruce Publishing Co.

The second edition of this book has undergone a thorough revision, and many of the newer advances in the treatment of genito-urinay diseases by Diathermy have been added.

After giving a short chapter on Definition and a brief historical note on the subject, the authors have described vividly the action of heat on the gonococcus and state that at a temperature of 109·4° F. prolonged for an hour, or 113° F. for ½, hour the gonococous is destroyed.

The chapters on gonorrhoea in women and men are exhaustively written, together with a complete technical description of their mode of treatment with Diathermy; a few of the author's illustrative cases are also given.

The Section on Surgical diathermy is good, and explains their value in the diseases of the genito-urinary system.

A Few Chapters are devoted to illustrate the use of heat in cancer.

It is a well written book, and will be found very useful by the general practitioners, interested in this speciality.—*V.C.S.*

NOTICE.

I

The third provincial conference of the rural medical practitioners of this Presidency is proposed to be held before the end of the year. I would therefore request all rural practitioners to kindly let me have their suggestions as to the time, place, and the name of the President for such conference.

VIRAGANUR,
Salem Dt.
22—10—'30.

S. RAMASUBBU, L. M. & S.,
Secretary,
The Madras Provincial Rural Medical Practitioners' Association.

II

I will be much obliged to any rural medical practitioner that will kindly furnish me with copies of any or all of the following government orders, as they are intended to be incorporated into the booklet of Government orders, circulars, memoranda etc., pertaining to the rural medical relief scheme and which I propose to print and publish for the benefit of the rural practitioners.

Name of the Government order.	Date.	Subject.
1. G.O. No. 1701 P. H.	17-8-'25	Leave to rural medical practitioners.
2. „ 1548 P. H.	16-8-'27	Deputation of R. M. P's. for other duties prohibited.
3. „ 360 Mis.	8-2-'29	Naming rural dispensaries after The Rajah of Panagal.
4. „ 1051 Mis.	15-4-'29	Do Do
5. „ 678 P. H.	1929	Appointment of L. I. Ms. to rural dispensaries.
6. „ 1633 P. H.	1-7-'29	Do Do
7. „ 942 P. H.	6-4-'29	Increased subsidy to R. M. Ps. and midwives.
8. „ 1709 P. H.	9-7-'29	
9. „ 2011 P. H.	13-8-'29	Deputation of R. M. Ps. for election work prohibited.
10. „ 37 P. H.	6-1-'30	Permission to employ 2nd class midwives in rural dispensaries.
11. „ 143 P. H.	23-1-'30	Leave to midwives.
12. „ 1131 P. H.	8-5-'30	Maternity leave to midwives.
13. „ 1395 P. H.	1930	Appointment of midwife.
14. Government Memorandum 30153-D$_3$ P. H.	19-9-'30	Building grant to rural dispensaries.

VIRAGANUR,
Salem Dt.
22—10—30.

S. RAMASUBBU, L. M. & S.,
Secretary,
The Madras Provincial Rural Medical Practitioner's Association.

ERRATUM.

On p. 445, Vol. 27 No. 7 of the Antiseptic (July, '30). For 'Prescription' therein, please substitute the following:—

Prescriptions.

Secondary Anaemia: -

℞

Tr. Ferri Perchlor	m xv
Mag Sulph	ʒ iv
Liqr Strychnine	m x
Aqua Mentha pip	ʒiii

M. ft. ½ TDS.

℞

Ferri et Ammo-citras	g xv
On Nucis Vomica	m xv
Liqr Arsenicalis	m viii
Aqua chloroform	ʒiii

M. ft. ½ Tds.

Pernicious Anaemia:—

℞

Liq Arseni Hydrochlor	m x
Acid Hydrochlor dil	ʒi
Syrup Lemonni	ʒiii

M. ft. min. ½ Tds. after food.

℞

Syrup Ferri Iodide	ʒi
Parish Chemical food	ʒii
Aqua	ʒii

Min. ½ Tds.

REGD: NO. 9 M. 429.
Vol XXVII No. 12.

DEC. 1930.

The Antiseptic

A Monthly Medical Journal

EDITED BY
Dr. U. RAMA RAU
AND
U. KRISHNA RAU M.B., B.S.

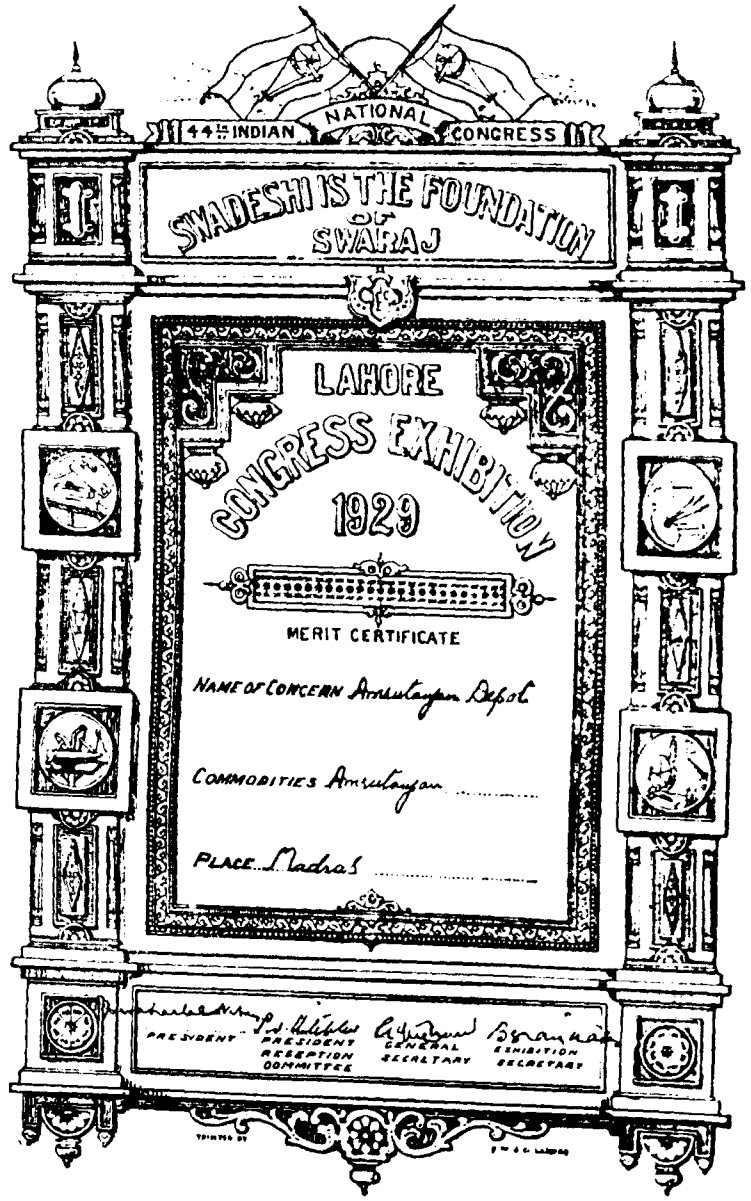
CONTENTS

Editorial & Publishing Offices : 323, Thambu Chetty St., G.T., Madras.

Subscription Rs. 5, Foreign 10sh. a year. Post paid. Single Copy As. 12. In advance

Index to Contents-P. 2, Index to advertisements.—see pages, 6 & 8.

Sole Advertising Agents for Europe & America : -Messrs. D. J. KEYMER & Co.
1 2. 3. White Friar's St., LONDON, E. C. 4.



Index to Contents *(Continued from title page.)*

Index to Advertisers.

(Carried over to page 8.)

Index to Advertisers

(Continued from page 6).

When writing to advertisers, please mention "The Antiseptic."

Martin and Harris, Ltd., 15, Sunku rama Chetty St., Madras.

HORMONE FEEDING AND NATURAL ORGANOTHERAPY

Endocrinologists are agreed that the Natural Organo-therapy of the Animal Economy employs and is dependent upon an ample supply of all the Hormones carried in solution in the circulation. The solution is a normal pluriglandular solution and the Hormones are freed from their native protein cells.

A vigorous vitality requires an ample supply of Hormones. The normal supply is limited to the capacity of the endocrine glands. Inordinate demands in excess of the maximum output of the glands, create a deficiency—in which event the most insistent requirements seem to be filled to the detriment of the rest.

Thus in physiological crises normal physical and intellectual activities are subordinated. Conversely, excessive physical or intellectual demands react upon and devitalize the subconscious physiological metabolism.

Accurate analysis of all the endocrine irregularities underlying such condition is impossible. A general Hormone deficiency is the rule—General Hormone feeding or restoration by the use of *pure liquid Hormones* is therefore, indicated and in practice has been found to give satisfactory results. *It does not preclude, but will supplement and reinforce specific endocrine treatment in proper cases.* Feeding all the Hormones reinforces a natural condition to which the system is accustomed and accommodated. COLWELLS HORMONES *is unique in the usefulness for this purpose.*

COLWELLS HORMONES contain the essential Hormones wholly free from all proteins or toxins. in a very palatable vehicle. It is non-alcoholic. The solution is a mild one, and the dosage can be arranged readily to meet the requirements of each specific case. It can be varied as to quantity and frequency until Hormone deficiencies are overcome and the emergency requirements complied with.

A free sample, 2 oz. bottle, will be furnished upon application.

Correspondence solicited.

COLWELLS *Pure Liquid* HORMONES

THE COLWELL PHARMACAL CORPORATION
25, Church St.,
New York City

Sole agents:—MARTIN & HARRIS, Calcutta, Bombay and Madras.

CHINOSOL

(O-oxyquinolin 51% Potassium 14% Sulphate 35%)

THE NON-TOXIC ANTISEPTIC AND BACTERICIDE

for internal and external use.

Indicated in all branches of Hygienic body culture, Lavages. Irrigations, Compresses, etc. In the treatment of suppurating badly healing wounds.

As a prophylactic against infectious diseases,

In febrile gastric and intestinal complaints,

As an adjuvant in the therapy of all disorders on a bacterial basis.

Chinosol Powder	:	**Chinosol Cold Cream**
Chinosol Tablets	:	**Chinosol Vaseline**
Chinosol Dragees	:	**Chinosol Tablets**

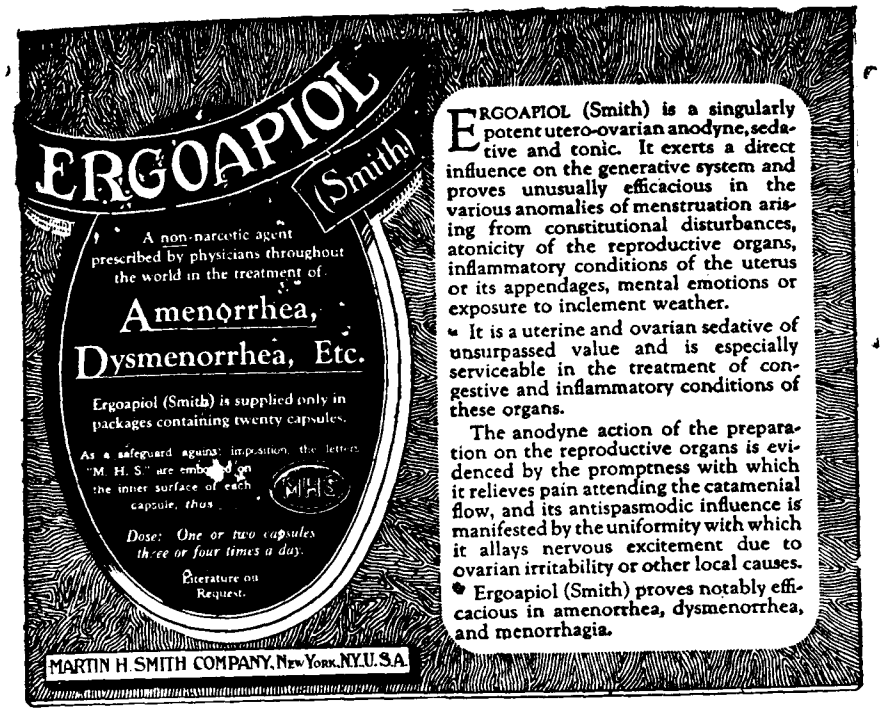
For Veterinary Use.

For particulars, prices, samples and supplies write to :—

MARTIN & HARRIS, LTD.,

SOLE AGENTS FOR INDIA & BURMAH,

Rowlette Building CALCUTTA **Graham Bldgs, Parsi Bazar St., BOMBAY.**



ERGOAPIOL (Smith) is a singularly potent utero-ovarian anodyne, sedative and tonic. It exerts a direct influence on the generative system and proves unusually efficacious in the various anomalies of menstruation arising from constitutional disturbances, atonicity of the reproductive organs, inflammatory conditions of the uterus or its appendages, mental emotions or exposure to inclement weather.

It is a uterine and ovarian sedative of unsurpassed value and is especially serviceable in the treatment of congestive and inflammatory conditions of these organs.

The anodyne action of the preparation on the reproductive organs is evidenced by the promptness with which it relieves pain attending the catamenial flow, and its antispasmodic influence is manifested by the uniformity with which it allays nervous excitement due to ovarian irritability or other local causes.

Ergoapiol (Smith) proves notably efficacious in amenorrhea, dysmenorrhea, and menorrhagia.

Syphilitic Cachexia and Neurasthenia.

Whether the cachexia is caused by the syphilis itself or by the treatment, is immaterial, the regenerating influence of Sanatogen in all cases of general debility is excellent. The celebrated dermatologist, the late Prof. NEISSER of Breslau University, regularly prescribed Sanatogen for his cachectic patients.

Col. Lambkin writing in the 'Lancet' says; "Diet is all-powerful in reference to syphilis." He employed a diet of which Sanatogen formed an important constituent with the greatest success.

SANATOGEN

Casein—sodium—glycerophosphates.

Samples for the medical profession on request to :—

MARTIN & HARRIS, Ltd.,

Rowlette Building, Prinsep St., Calcutta.

When writing to advertisers, please mention "The Antiseptic."

When writing to advertisers, please mention "The Antiseptic."

When writing to advertisers, please mention "The Antiseptic."



For 50 years we have manufactured

The BEST Filter Papers and Filter

for every variety of filtration work.

Our Catalogue, a complete guide to all those interested, will be sent free of charge.

All forms dealing in Laboratory needs will receive our special consideration.

CARL SCHLEICHER & SCHÜLL

DÜREN, Rheinland.

Samples and quotations can be obtained from the Sole Agents for India.

MARTIN & HARRIS LTD., Rowlette Building,
Prinsep Street, Calcutta and Branches.

INDIGENCUS MEDICINAL SPECIALITIES OF PRCVEN VALUE.

Syrup Thermolysin—The most efficient Specific for Acute & Chronic Malaria, Enlargement of Liver & Spleen etc., Guaranteed cure—Re. 1 per phial.

Bisomak—Sure remedy for Acidity Heart-burn Colic, Gastric Ulcer & Dyspepsia etc., As. 12 per phial.

Iodoline—For all sorts of inflammation & swelling where Iodine is indicated—absolutely stainless and cent per cent absorbed. As. 8 per pot.

Iodoline cum Methyl Salicylas—For aches and pains, Rheumatism, Neuralgia, Sciatica, Swelling of the joints etc. As. 8 per pot.

Rebensal—For ECZEMA, Ringworm, Scabies, Itches and all other Parasitic Skin diseases. As. 5 per pot.

Can be had of all leading Chemists or direct from the

Manufacturers :

THE
CLINICAL & PHARMACEUTICAL
WORKS LIMITED,
COMILLA, BENGAL.
Special rate for Trade and Profession.

Vapo-Cresolene

The value of inhalants for the relief of cough is unquestionable. For fifty years Vapo-Cresolene has been demonstrating its usefulness in this field. These cresols of coal tar, so strongly antiseptic, yet harmless as vaporized, have never ceased to grow in favour as a means of relieving cough and difficult breathing, as in whooping cough, bronchitis, spasmodic croup, bronchial asthma, and in the bronchial complications of measles. Treatment is preferably at night when rest is most desired: The antiseptic vapour is given off all night without attention to the vaporizer, making it unnecessary to disturb the patient.

Stocked by :—

International Trading Co., Bombay, Dover's Medical Hall, Rangoon, Burma, Smith, Stanistreet & Co., Ltd., Calcutta.

THE VAPO CRESOLENE Co.
New York N. Y.
U. S. A.

FOR THE PATIENT'S COMFORT

The continued use of pernicious purgatives, actually defeats the very object for which they are taken. They aggravate the condition and actually cause sluggish bowels and constipation.

'PETROLAGAR' has a bland, soothing action on the tender bowel mucosa and assists in re-educating the bowel to function in a healthy manner without pain or griping. Prescribe 'Petrolagar' for your patients; they will appreciate the comfort and ease it provides for them.

Petrolagar.

Write for interesting literature to our agents:
Messrs. H. J. Foster & Co. Ltd., P.O. Box 202, Bombay.

The Antiseptic

ESTD., 1904.

A Monthly Journal of Medicine & Surgery.

Editors: DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

Editorial and Publishing Offices: 323, Thambu Chetty St., Madras.

Annual Subscription Rs. 5. Foreign, 10 Sh. Post Paid.

Vol. 27] DECEMBER, 1930 [No. 12

Original articles

THE INDIGENOUS DRUGS AND THEIR ECONOMIC ASPECTS*

BY

LT-COL: R. N. CHOPRA I.M.S., PROFESSOR OF PHARMACOLOGY,

Calcutta School of Tropical Medicine, Calcutta.

I WISH to point out at the outset that I have used the term "Indigenous Drugs" in its widest sense, inasmuch as I have included under it not only those drugs which were originally the natives of India but also those which have been introduced and have become completely naturalised. It thus includes not only the drugs which grow in a state of nature in this vast country but also those which are cultivated. It includes all drugs whether they are used in the indigenous systems of medicine or whether they are used in the Pharmacopoeias of various Western countries. A few words about the evolution of the present day indigenous drugs will interest you. In the first place there are the drugs used in the ancient Hindu medicine. The earliest mention of the medicinal use of plants is to be found in the Rig-veda which is one

*A lecture delivered before the S.I. Branch of the British Medical Association and specially sent to the *Antiseptic* for publication.

1911 June p. 270). I have noticed for months together continued sub-normal temperature in a boy of 3 years who was subjected to occasional haemorrhage, but found on history from his father, that it must be due to his father's syphilis and no wonder that the boy is subjected to hereditary syphilis with heart complications. There was another case of infantile diabetes which had run on continued sub-normal temperature for over 2 years. Here also the girl seems myxoedemic and puts on idiotic appearance but not cretinism. History from her father revealed syphilis and thus hereditary. But under "insulin" the girl showed signs of normal rise of temperature but idiotic appearance and other characteristic symptoms as heard, never shown improvement to normality unless it is treated with "specific" treatment combined with "glandular" therapy as suggested by Fisher, Koplik and Graham. There is no salvation, I believe, in the long run to the girl in question.

IRRADIATED OILS CONTAINING VITAMINS*

BY

DR. K. PRADHAN, L.M. & S. (BOMBAY UNIVERSITY), NAGPUR.

Considerable amount of interest is evinced of late in irradiated oils, both vegetable and animal, as is evidenced by several brands of them in the market now. In the following translation of Sanskrit verses we have an idea of the results of clinical observations.

Irradiated Vegetable Oil in Pre-historic Ayurvedic Medicine :—

"Sacred, sweet and delicious to taste, easy to digest can be used indefinitely without harm to the body or mind,"

Externally—for skin diseases ; as a healing balm for bad sores ; for baldness and increasing the growth of hairs.

Internally—for increasing mother's milk ; to make teeth strong and dentition easy ; as a tonic in urinary diseases and gonorrhoea ; for cough (Kapha Dosha) ; for liver complaints (Pitta Dosha) ; for rheumatic and nervous complaints (Vata Dosha) ; for increasing appetite; for increasing brain and muscle power; for improving the quality of blood; for increasing weight; for cooling the excessive heat in the body particularly felt in palms and soles of feet; strengthening the heart's action; for removing chronic constipation; for curing sprue and Tuberculous Ulcers; for increasing Virility; for Consumption; for curing Low fevers; for increasing strength in bones; for curing discharge of pus from ear; for chronic Sore eyes".

Under the circumstances the advent of indigenous preparations of considerable merit is to be welcomed. IRVO is one of such preparations before us. IRVO is claimed to be a mixture of cold-

*Specially contributed to the Antiseptic

use by the profession in India must be restricted, while other countries not bound by these traditions will use them only when the case is proved as to their utility.

Much more could be done in furthering the cause of indigenous medicine and making it really useful to the people in this country by a thorough study of the indigenous drugs than by wholesale revivals of the old systems under vastly changed environments. The active and useful drugs should be separated from those which are inactive and worthless and they should be brought into use for relieving the sufferings of the vast masses of humanity in this country. The economic condition of the people is so poor that many of them cannot afford to use the expensive medicines of the Western system. The result is that the majority of the ryots have either to go without any medicine or rely on the crude drugs sold in the bazaar, many of which are active, yet many others have not the therapeutical activity they are alleged to have.

A careful survey of the literature on indigenous drugs showed that investigations on such lines were not carried out. Most of the older literature deals with the botanical aspects of medicinal plants. Later on attempts were made to chemically analyse many drugs and carry out clinical trials.

Admirable as all these attempts were yet the pharmacology of most of the indigenous remedies remained an unexplored field till recently. The reason of this is not far to seek. Investigations of this nature require a considerable outlay of money in the form of well-equipped chemical and pharmacological laboratories; and a liberal staff of competent chemists and pharmacologists is also essential. Medicine is now intimately related to chemistry, and the ultimate solution of most problems, whether physiological or biological, rests on some physical or chemical basis. The time and labour required to work out the chemical composition of a single drug are enormous. This may be judged from the fact that it would take an experienced chemist several months, perhaps a year or more, to isolate in a pure state and roughly estimate the nature of the different chemical constituents of a single crude drug. The determination of the chemical constitution of the active principles concerned would take considerably longer period provided the chemist devoted his time entirely to one active principle. The isolation of a sufficient quantity of the active principles and testing them pharmacologically would take several months.

The situation must however be faced. As the action of these drugs or their active principles can only be established by a careful chemical, pharmacological and clinical study, the investigation of all the three aspects should be carried on side by side. The

experimental work on the pharmacological side can be done only in laboratories well-equipped with all modern appliances. None existed in this country to enable one to do the work till the Calcutta School of Tropical Medicine was established in 1921. For the first time in the history of India, a chair in experimental Pharmacology was established, one of the main duties of the incumbent being investigation of the indigenous drugs on scientific lines. The chemical department of this institution has a team of experienced chemists who work out the chemical composition of drugs, isolate their active principles, and hand them over to the pharmacologist for determination of their action on animal organism. The clinical testing of the drug is made possible by the Carmichael Hospital of Tropical Diseases, a purely research hospital attached to this institution. In this way it has been possible to go through a number of drugs in all the phases of their investigation i.e., from the isolation of their active principles to the testing of their action on animals and finally making suitable preparation for trials on patients and recording the results of such therapeutic trials.

Three main aspects of the problem.—After a careful survey of the Indian Medicinal Plants three aspects of the problem forcibly presented themselves from scientific as well as economic points of view. The research on indigenous drugs initiated by us at the Calcutta School of Tropical Medicine was therefore undertaken with three main objects in view.

(1) To make India self-supporting by enabling her to utilise the drugs produced in the country, and by manufacturing them in a form suitable for administration.

(2) To discover remedies from the claims of the inidgenous medicine Ayurvedic, Tibbi and others, so as to be employed by the exponents of Western medicine.

(3) To discover the means of effecting economy, so that the medicinal remedies can come within the means of the great masses in India whose economic condition is very low.

PHARAMACOPOEIAL AND ALLIED DRUGS.

The first proposition is likely to lead to great results, because a large number of drugs which grow in this country are known both to Eastern and Western medicine and the properties and actions in many cases are not unknown. The research here might with advantage be diverted into two main channels. Firstly there are many drugs of established therapeutic value which are in use in the pharmacopoeias of different countries. The majority of these grow wild and in great abundance in many parts of India

and a certain number are even cultivated. Some of these are collected and exported, though an infinitesimal fraction of the quantity produced, to foreign countries, and come back to us in the form of standardised pharmaceutical preparations and active principles in pure condition, probably at a price a hundred fold of the original crude product. A host of others grow, mature and eventually die without being put to any use whatsoever. There are numerous examples but a few will suffice to illustrate the possibilities of their development.

Atropa belladonna grows in great abundance in a state of nature in the Himalayan ranges from Simla to Kashmere, at an altitude of 6000 to 12,000 feet above the sea level. Large quantities of the root are collected in Hazara district of North-western Frontier and during recent years have been exported to Europe and America. *Hyoscyamus niger* is a native of the temperate Himalayas at an altitude of 6,000 to 10,000 feet and a good quantity of the drug can also be grown in the plains of the Punjab. A number of species of *Mentha Aconite*, and *Juniper* grow all over the Himalayas; *Juniper communis* occurs abundantly in some parts of Kashmere. *Valerian indica* can be found in large quantities in Kashmere and Bhutan. A number of varieties of *Artemesia* grow in the northern Himalayas and the mountain ranges of North-western Frontier and santonin bearing *Artemesia brevifolia* grows abundantly in Kashmere and in the Kurram valley. A very good quality of *Podophyllumemodi* is found within the higher shady temperate forest of the Himalayas from Sikkim to Kashmere at a height of 6,000 to 7,000 feet. The Forest Department has now taken up its cultivation in the Punjab, United Provinces and North-western Frontier Province.

Besides these there are a number of pharmacopoeial drugs which are widely used by the medical profession, but which do not naturally grow in the country. They do very well, however when they are cultivated under proper conditions in suitable parts of the country. Examples of such drugs are numerous but a few of the important ones such as *digitalis, ipecacuanha, eucalyptus, cinchona, jalap*, etc., may be cited. They were introduced into India many years ago and are growing well. On account of the great demand for these drugs their production in this country would be of some economic importance, especially in view of the gradual extension of the Western medicine among the masses. India possesses most wonderful variability so far as the temperature and general climatic conditions are concerned and every conceivable drug ranging from those growing in the hottest tropical and damp climates to those growing in dry, temperate and very cold climates can be grown and acclimatised in some part or other.

From the geological point of view also every grade of soil from alluvial deposits to hard rocky formation and sandy deserts are met with. Professor Greenish of the London School of Pharmacy rightly said that "India, owing to the remarkable variations she possesses of climate, altitude and soil, is in a position to produce successfully every variety of medicinal herb required by Europe."

It should be remembered, however, that the soil, the season and the gathering time are some of the important variable factors with plants, and it can hardly be expected that the amount of active constituents would be constant under all conditions. In some cases the quality is good and constant, but in the majority of instances the percentage composition of the active principles has yet to be determined by careful methods of chemical and biological assay, to show that these remedies, growing in a state of nature, are as good in quality as those of imported varieties. If they do not come up to the required standard, the best method of bringing them into general use by improving the quality of the active principles by suitable cultivation, in parts of the country where this can be done economically, has yet to be determined.

Secondly, a large number of plants grow in India which, though not exactly the same, have similar properties and actions resembling the imported and often expensive remedies, and would form excellent substitutes. Not infrequently it is some closely allied species which is pharmacologically just as active. That many such plants do exist there is very little doubt, but since no effort has been made to work out their medicinal properties on scientific lines, or to confirm the work already done, there appears to be a great deal of uncertainty about their action. Unless this is done it can hardly be expected that they will be taken into use by the profession, in place of more certain and tried remedies. There are numerous examples but a few may be cited. *Colchicum luteam*. Baker grows on the slopes of the western temperate Himalayas and would form an excellent substitute for the official. *C. autumnale Scillla indica* grows extensively in the sea-coast and on the drier hills of the lower Himalayas and the salt range and would make a good substitute for *S. maritima*. *Ferula narthex* from which a gum resin resembling asafoetida can be obtained grows in Kashmere. The properties of *Picrasma quassioides* and *Gentian kurro* resemble those of *Picrasma excelsa* and *Gentian lutea* of the British Pharmacopoeia respectively.

In both these groups there is an enormous field for research and development. If these drugs are investigated, their active ingredients recognised, their percentage composition determined their action established and standardised and pharmaceutica,

preparations manufactured, the economic benefit will be immense to the country.

INDIA'S FOREIGN TRADE IN DRUGS.

The economic importance of the first proposition can only be fully appreciated by studying the position of the drug trade of India. A study of the figures of the total values of imports and exports during the last 25 years brings out some remarkable facts. For the purposes of comparison I have put them in the form of a graph,* the upper curve representing the import and the lower curve giving the export figures. Apart from the peaks and depressions at various points the curves show a gradual tendency to rise thereby indicating that both the import and export trades have considerably increased during the last 20 years. Thus in the year 1908-'09 the value of drugs exported from India amounted to Rs. 15'5 lacs against imports which amounted to Rs. 73 lacs. In the year 1928-'29 the export and import value of drugs were respectively 42 lacs and 200 lacs. This shows the remarkable extent to which the trade has increased and at first sight this would appear to be a very satisfactory state of affairs. A closer scrutiny, however, reveals that the imports are proportionately very much larger than the exports. This means that while much raw material is going out of the country, very considerable quantities of refined preparations manufactured in foreign countries are coming into the Indian market.

If we now go a little more into detail and study the reasons for the large excess of import over exports, we are struck by the fact that most of the imported drugs are standardised pharmacopoeial preparations such as galenicals and purified alkaloids in many cases manufactured from the similar drugs that have been exported. Besides these there is a large import of proprietary or patent preparations.

A perusal of table II* shows that over 100'9 lacs worth of the former group under the heading of other sort "of drugs and medicines" and 42'8 lacs worth of the proprietary preparations were imported in 1928-29. The proprietary and patent medicines have shown a phenomenal increase during the last five years, i.e., from about 25'0 lacs have increased to 42'8 lacs. This shows the increasing extent to which the Indian market is being exploited by the manufacturers of these remedies. The figures showing pharmacopoeial preparations and chemicals have risen from 87'8 lacs to 114'3 lacs in 1927-28 but show a slight decrease to 100'9 lacs in 1928-29. The import drug trade taking all round shows a

*These are omitted here.

definite and marked increase during the last five years, i.e., from about 25 lacs has increased to 42'8 lacs. This shows the increasing extent to which the Indian market is being exploited by the manufacturers of these remedies. The other items of interest in this table are camphor, whose import is steadily on the increase and quinine salts which have been showing some fluctuation but on the whole show an appreciable increase.

TABLE III.

The most oustanding figures in export table III are those under the heading "Total Drugs and Medicines" which show a steady increase from 35'8 lacs to 41'6 lacs during the last five years. This may at first sight appear to be promising, but for the much larger increase in value of prepared drugs imported.

It will be seen that all these drugs in crude forms are annually exported from India to foreign countries at a nominal price, are utilised in various medical and allied industries and a portion of them at any rate is returned to India in the form of expensive preparations. The finished products naturally fetch considerably higher prices and hence the increase in the export revenues only shows to what an extent the Indian raw materials are being utilised by the drug manufacturers of other countries to their own benefit.

ence of the exponents of those systems. Further we are taking up those drugs which have great local reputation for investigation before touching the less reputed remedies. Besides many of these drugs have been clinically tried by some of the medical men practising Western medicine and who have expressed their opinion regarding their efficacy and this has also been helpful to us in the selection of drugs to be investigated.

Dr. Koman of Madras some years ago made a clinical study of the medicinal properties of a large number of the indegenous drugs. According to him a number of drugs were of value when tried on patients but he recommends that further research on scientific lines is necessary before they can be recommended for universal adoption.

A retrospect of results achieved:—The investigation of drugs used in the indigenous medicine was started nearly a decade ago and much has been accomplished during this short space of time. A number of important medicinal plants prescribed by the practitioners of the indigenous systems have been carefully investigated from every point of view and the results have been published from time to time. Their chemical composition has been determined, the pharmacological action of the active principles worked out by animal experimentation and finally suitable preparations made from the drugs have been tested on patients in the hospital. It is only by such a thorough enquiry that the real merits of these drugs can be proved and a demand created for them not only in India but in other parts of the world as well. This laboratory work has brought out the merits and qualities of certain drugs and it has been shown that they may prove to be very useful additions to the present armamentarium of the medical men to relieve the sufferings of humanity, if they are taken into general use. Such drugs unfortunately are not many. A large number of those examined showed a certain amount of activity but were not found to be superior, in fact in many cases are not nearly so efficacious, as the drugs already possessed by the pharmacopoeias. A third group of these drugs comprised of those remedies which although largely used in the indigenous medicine were found to have little or no activity whatever.

How to Effect Economy and Bring the Treatmnt Within the Means of the Masses.

The third and the last proposition is to effect economy, so that these remedies may reach the masses. This is only possible if the price of the drugs be considerably reduced, for in a poor country like India, there are millions of people who cannot afford

any kind of treatment whether cheap or expensive and have consequently to depend upon charitable medical relief institutions. The cost of drugs is so heavy that most of these institutions, which have only a limited annual budget for drugs, are not able to cope with the demand for such common and essential drugs as quinine, castor oil, magnesia, etc., to say nothing about the expensive medicines which are sometimes necessary.

The only way in which drugs can be cheapened and brought within the means of the masses is to utilise the local resources and substitute the indigenous products for the more expensive imported preparations of the Western medicine. This can be done by encouraging the production, collection and manufacture of the local Materia Medica, by preparing pharmaceutical preparations in a systematic manner. By local production and substituting equally potent drugs of Indian origin for the imported drugs, the cost of treatment can be considerably reduced. We have already made reference to these remedies and the possibilities of their development. Their active principles can be isolated, and standardised preparations such as tinctures extracts, powders, etc., can be prepared without difficulty with inexpensive apparatus. If this is done on a large scale it will be possible not only to save the seaborne freight but many other charges. Crude drugs, we have pointed out, are exported from India at a very low price and are reimported in many cases in the form of refined, standardised preparations at many times their original price. Carriage and freight charges to and from the port of import and export have to be considered at both ends. The actual seaborne freight may not be much but the insurance charges, agents' commissions, export and import custom duty and excise duty on alcoholic preparations greatly increase the price to beyond the means of the ordinary ryot in India, as the consumer must eventually pay all these charges. Besides that, owing to cheapness of labour in this country, enormous reduction in the cost of manufacture could in all probability be effected.

Use of Crude Drugs

Secondly by using crude drugs and preparations the cost of treatment could be considerably reduced. The utility of the Western medicine to the masses in India has been limited by reason of its costliness. Its further progress, in spite of all efforts that are being made, is being hampered for economic reasons: because of the poor returns of agriculture and the small wage earning capacity of the people, those who desire can afford only the cheapest remedies and treatment. As long as the economic conditions of India remain as they are at the present time, so long will

the average villager demand, and very naturally too, something within his means i.e., medical advice costing a few annas and the treatment costing less. The separation and purifying of the active principles from drugs or making standardised preparations naturally involve a considerable additional expense. A great many of the maladies of everyday-life for which drugs are used are of a minor nature. Many of the crude drugs available in the bazaars if intelligently used are very nearly as efficacious as the refined preparations and the substitution of such cheap products is bound to bring down the cost of treatment to a minimum. Crude vegetable purgatives are often as effective as the elaborated products. Economy can also be effected in many of the most widely used drugs in this country and many examples can be cited. For many years quinine was separated from the total alkaloids of cinchona bark under the impression that it was the only effective alkaloid against malarial infections. The isolation and refining of this alkaloid naturally made it more expensive. The researches of Acton, McGilchrist and Fletcher have conclusively shown that the other three of the main alkaloids occurring in the bark are also effective against this one of the most widespread of all diseases in the tropics. The total alkaloids of the bark in the form of cinchona febrifuge, therefore, were extensively tried and after careful observations have been found to be quite as effective as the purified quinine itself. During the war the price of quinine went up to Rs. 55 per pound and, although it has come down considerably of late years, it is still fairly high. The result is that most of the hospitals and dispensaries in the mofussil who have got a limited annual budget can only afford a limited quantity of this important and essential drug, which is quite inadequate to meet the demand. In order to supply quinine, the supply of other often important drugs has to be curtailed. The substitution of the total crude alkaloids (cinchona febrifuge) in place of purified quinine has not only effected a great saving (large quantities of quinine salts are being imported) but has done much to bring the treatment of malaria within the means of the poor, thus alleviating the sufferings caused by this one of the most universal and incapacitating of all diseases in this country. The total alkaloids of ipecacuanha have also been shown to be nearly as effective against amoebiasis which is also very prevalent in this country, as pure emetine. Then again in the case of *H. antidysenterica* it has been found that the total alkaloids and the galenical preparations made from the bark are better than purified conessine. The tincture made from *Ephedra vulgaris* introduced by the author, is just as effective in the treatment of asthma, cardiac failure etc., as the very expensive alkaloid ephedrine. Such examples may be multiplied. It should

be possible to prepare tablets from many of the indigenous drugs which could be sold at a very cheap price. Attention to this subject is of great importance to this country, because economy and low cost of advice and treatment are of paramount importance to any plan of medical relief that can hope to succeed in our country.

The resources of India are vast and inexhaustible and it can be said without any exaggeration that India can supply the whole of the civilized world with medicinal herbs. Leaving aside the drugs used in the indigenous systems for the moment, whose therapeutic value has not been investigated, in the majority of instances on scientific lines, most of the pharmacopoeial drugs grow in great abundance and a careful survey of medicinal plants growing in India is in progress, and it is shown that ¾ of the pharmacopoeia are found te grow in some part of India or other.

POST-ENCEPHALITIC HEMIPLAGIA*

BY

Dr. N. W. KULKERNI, M. D.

J. J. Hospital, Bombay.

Encephalitis Lethargica is surprisingly polymorphic in its clinical manifestations though the virus has a special affinity for some selected parts of the Central Nervous system. The area, most often involved, is the periaqueductal grey matter including the ocular nuclei and those cells of the midbrain connected with the phenomena of sleep, giving rise to the familiar nuclear ophthalmoplagia and lethargy from which the malady takes its name. But if it shows varied clinical manifestions in its acute forms, the complications and sequelae which follow in its wake seem to be endless. Mental symptoms, more psychomotor than psychical, are the most distressing. Gruchet and Verger (*1*), have also described cases of myelitis due to the same virus. The existence of polynuritic forms has been claimed by various French observers especially L. Beriel and A. Davic (*2*). In his well known thesis on paraplegic forms of epidemic encephalitis, C. Reboul (*3*) records several interesting cases. Types resembling disseminated sclerosis, acute anterior poliomyelitis, Landry's disease, a pseudo-tabetic type of lumbo-sacral localisation have been distinguished among the spinal forms of this disease. In short, types resembling all sorts of nervous diseases have been encountered and when we consider the innumerable functions of the Central System and that which the virus is capable of affecting any part of it to any extent, this is not to be wondered at.

*Specially contributed to the Antiseptic.

Leaving aside the various other symptoms which it may give rise to, and confining our attention to hemiplagia, it can be said that it is not so very rare as it is popularly supposed to be. As a complication coming on during the actual course of an acute attack, it is fairly common, especially in children. To quote K. Wilson (4) "Sporadic encephalitis is a fairly common affection of childhood" producing usually a hemiplagia, less often a diplagia." The first case of this type was recorded by E. Farquhar Buzzard and J. G. Greentield in 1919 (5). They described two cases, both in females, coming on after forty, which was rather unusual and at least one of which closely simulated cerebral hemorrhage. Both the patients expired in the hospital and a post-mortem examination revealed lesions typical of encephalitis. Another case recorded was by M. Bernstain in 1925 (6), again in a woman aged 36, of a right-sided hemiplagia from which there was a complete recovery.

But these cases cannot properly be termed "post-encephalitic" as they were more in the nature of complications than sequelae, coming on during the acute attack. When we begin to study the sequelae produced in patients as a result of a previous attack of encephalitis, we find that though there is a large variety of them, hemiplagia is very rare. The commonest sequelae as we all come across, is the one giving rise to the Parkinsonian Syndrome and thus closely simulating Paralysis Agitance, the Extra Pyramidal Motor System bearing the brunt of the attack. Ziegler (7) in his extensive study of the clinical course of 752 patients who suffered from the acute attack, found that 586 subsequently developed Parkinsonian Syndrome. Robb's figure for the same, gathered from his study of 173 patients in 1924 epidemic, is 58·8%. These observers in their elaborate classification of these cases have not classified those with hemiplagia separately, and hence indicating that the number of such cases must be negligible. But it should be borne in mind, that leaving aside the cases in which hemiplagia comes on suddenly during the actual course of the disease, there are cases in which it comes on weeks or months after the patient has recovered from the primary illness. These cases can truly be termed "post-encephalitic."

Below I record cases in which a definite diagnosis of hemiplagia as a sequelae of encephalitis could be made on clinical grounds:—

Case 1. Patient, D. M. P. M., male, aged 35, and a millhand, was admitted to the hospital for "weakness of the left side of the body for the last two years." Patient did not give any history of syphilis nor was any evidence of it detected. Patient gave history of

This serum, when it has attained full immunological value, will cause a local blanching of the rash,—Schultz—Charlton phenomenon, in an active instance of scarlet fever, if the serum is applied within 3 days from the time of onset of the rash. Patients with scarlet fever have circulating in their blood in easily demonstrable quantities, during the toxic phase of the disease, the poisonous substance which is responsible for the rash and toxic symptoms of the disease. This substance is also excreted in the urine. Intramuscular or intravenous injection of scarletinal streptococcus antitoxin causes a complete neutralization of this substance in the blood and urine in less than 24 hours. Similar injection of streptococcus scarletinal antitoxin into a patient suffering from the acute disease results in a rapid disappearence of the rash, a fall in temperature and pulse rate to normal, a diminution of the leucocyte count, improvement of the local infections, and abatement of the toxic symptoms with a return to a state of well-being in from 24 to 48 hours. The numbers and seriousness of septic complications seem also to be diminished. No marked beneficial effect is observed on established septic complications of several days duration.

Young infants, up to the age of six months in general, do not react with local erythema upon intracutaneous injection of small amounts of the soluble toxic substance of streptococcus scarletinae. Infants with a negative skin reaction can be sensitized by injection of small amounts of streptococcus products and as a result of such sensitization develop a positive skin reaction which resembles the reaction of individuals susceptible to scarlet fever.

Guinea pigs and rabbits, whose skins are insensitive to the soluble substance of scarletinal streptococcus, can be sensitized by the intracutaneous and subcutaneous injection of streptococcus scarletina and its products. The positive skin reaction so induced is neutralizable by scarletinal antitoxin. Animals whose skins have become sensitive to the soluble substance of streptococcus when injected in a special manner with living streptococcus scarletinae show more pronounced features of the disease than do the insensitive animals. The soluble toxic substance of Streptococcus Scarletina is more nearly related pharmacodynamically to tuberculin than to diphtheria toxin.

Human beings from early infancy are frequently exposed to infective and sub-infective doses of streptococcus hemolyticus. As a result of this, their tissues become increasingly sensitive to the products of this streptococcus, particularly to the soluble toxic substances. Some individuals respond by elaborating in their blood a neutralizing substance which circulates continuously. Such individuals can never have clinical scarlet fever. Other

Wassermann Reaction was negative in the blood and the cerebrospinal fluid and the latter did not show any increase of globulin or the cell content (3 lymph. per. c. mm.) Ophthalmoscopic examination revealed normal fundi oculi.

The patient was treated with intravenous injections of Cylotropine, and was discharged completely cured. The patient has promised to keep in touch with us for some years.

The typical expressionless face, the slow monotonous speech the generalised rigidity, the history of fever and diplopia, were quite suggestive of encephalitis and the absence of signs pointing to other diseases, practically confirmed the diagnosis.

It is, therefore, interesting and important to remember encephalitis as a cause of hemiplagia, though it has not yet found place in the usual text books certainly on account of its rarity. "French" makes just a mention of it in the list of the rarer causes of hemplagia but does not deal with it at all in the text proper. The hemiplagia, coming on suddenly with coma and a rise in temperature during the acute attack, may be mistaken for cerebral hemorrhage or meningitis. When it comes on gradually and as a late sequelae it may resemble various conditions such as cerebral tumour, cerebral abscess, disseminated sclorosis, etc. The greatest difficulty is experienced in distinguishing such a case from an early case of disseminated sclorosis and only a detailed and a thorough examination and the proper weighing of the data in favour of and against it, would enable one to come to a definite conclusion. I think it hardly justifiable to enter into those points here.

The above mentioned cases were under the care of Dr. R. S. Tirodkar, M. D. (Lond.) Honorary Physician, J. J. Hospital, to whom I am obliged for his kindness and help.

REFERENCES

(1) Gruchet and Verger.—Presse. Med. 1926, June 12, 737.
(2) L. Beriel and A. Devic—Lyon. Med. 1925, 112.
(3) C. Reboul—These de Montpellier. 1925, No. 69.
(4) S. A. K. Wilson.—Brit. Med. Jour. 1929 i, 487.
(5) Buzzard and Greenfield—Brain, Vol. 42. Part IV, 305.
(6) M. Bernstien—Bost, Med. and Surg. Jour. 1925, excl 298.
(7) L. H. Ziegler Jour. Amer Med. Assoc. 1928, July 21 155.
(8) Robb—Brit. Med. Jour. 1927, i, 615—616.

TIT-BITS ON PEDIATRICS

BY

C. Papa Rau, L.M.P., M.C.P. S., D. Vet. Sc.,

C/o St. George's Home and Baby Clinic, Vizayanagaram.

(Continued from page 784, *Antiseptic*, November 1930.)

(33) One would see often infants within 6 months suffer greatly from *inflammation of the eyelids*, gradually leading to gummatous exudation. It may be a great rarity in the upper classes but it is very easily found among the lower classes of the Indian population, especially among the mixed and cross-races given to promiscuous mixing without restraint. It is always a hereditary or acquired syphilitic tarsitis with sticky exudation of a gummatous nature. It runs a painless course and often localized on the tarsus, spreading but slightly to the lid. You don't find adhesions of the lid, loss of cilia and eversion of the lid. The pre-auricular and submaxillary lymph glands of the affected side are usually swollen but do not suppurate. But if it is an acute type of syphilitic tarsitis, you will find the swelling of the cartilage which may be very painful. It has been found to be an early symptom of syphilis. This is the result of a baneful Indian custom of kissing children by syphilitic individuals or by accidental lesions from finger-nails, infected gloves, towels, aprons, underclothing and sore nipples, or by moistening the eyes with saliva and licking them with the tongue to remove foreign bodies or cure some affection. Anti inoculation is very rare if it is not through the parturant canal having soft chancre. (Show and La Fatra). This is a common thing among the Indian new-borns. It is often a difficult task to treat such infants. Mother is always inquisitive to know the cause of such bad-eyes to her new-born. It is certainly a delicate point to divulge its cause. So one should be always on guard not to annoy its mother by telling her the truth. Better to treat first.

(34) The occurrence of gonorrhœa in the new-born is favoured by conditions occasioning a prolonged or intense contact of the infantile eye with the pathogenic germs present in the anular constriction of the genital canal, the lower parts of the cervical-canal and the external orifice of the vagina. This is most often referred to retarded births, twin births, facial and brow presentations. Early rupture of the amnion favours infection in utero as the eyelids are easily everted due to the slow passage of the fœtal head. The infection may be carried by the examining finger to the lids. The pressure of the forceps may also pull the soft parts in such a way as to provide a port of entrance to the pathogenic

factor by opening the lid-fissure. There are more ways than one to fix the source of infection—the duration of the passage of the head through the vagina, the larger dimensions of the cranium, instruments, underclothing, sponges, towels, bath-tubs, infection through the lochia or mastitis and as endemic in foundling institutions, one should be careful to note that it is of various phases of social life—gono, ophthalmo (non-specific), vaginal (after rape) (Shaw and La Fatra Dis. of *chil.* p, 153-157). Early treatment is very simple. No specific and heroic ways of treating such infants is ever desired. If neglected this would lead to granular lids of a permanent nature not easily amenable to ordinary treatment.

(35) Infants and children do not as a rule show *rigors* and *headache* as adults but convulsions and delirium. The temperature, the rate and character of the pulse are very important. The rise in a day to 104° or 105° F. precludes typhus and typhoid, not scarlatina: a gradual increase for the first four days with morning remissions is diagnostic in typhoid (Wunderlich). In tubercle the evening temperature is as high as or according to Dr. Ringer, higher than in the morning. If the pulse rate is 130 in an infant, who takes suddenly ill with fever, symptoms of nausea, vomiting and a dry coated tongue, always look for an acute gastric fever. If, however, the child is feverish and vomits and the pulse rate is 70-80 always take it as tubercular meningitis (Fisher). I don't wish to take hastily as typhoid, like Wunderlick, all those fevers with morning remission in the first four days. Indian "fevers" are not European or African!

(36) Dr. Finlayson's observations on the subject of *temperature* in young children go to show:—

(1) that there is a fall of temperature normally in the evening of 1°, 2° or even 3° F. (2) this fall may take place before sleep begins, (3) it is usually greatest between 7 and 9 P.M., (4) the minimum is at or before 2 A.M.; (5) after 2 A.M. it again rises and that independently of food etc., being taken; in fact, it rises during sleep. (6) the fluctuations between breakfast and tea (coffee as in India) are usually trifling. (7) take a good thermometer shaken down to below the normal and fix it into rectum always which has been oiled or vaselined., (8) take care to watch the thermometer lest breakage should occur, as children object interference; (9) the best position for the child is to lay it face downward on the mother's lap; (10) that impacted fæces in the rectum and fermentative conditions usually increase the temperature; (11) there will be a big rise of temperature in the child, if it is not fed on properly and in time; (12) there will be a marked decrease of a degree or two at high temperature

if it is fed in time. (13) This rise and fall of temperature with feeding are not constant as was observed in many cases (Indian). (11-13 Papa Rau's observations)

(37) Dr, Benchut's *aphorisms* are of practical value especially with infants and children in India and other tropical countries:—

(*a*) Children suffering greatly from the intestinal irritation of worms have always irregular pupils—a point most neglected by Indian Practitioners to search among Indian children.—Papa Rau;

(*b*) In early childhood there is no relation between the intensity of the symptoms and the material lesion. The most intense fever with restlessness, cries and spasmodic movements, may disappear in 24 hours without leaving any trace.

(*c*) Abundant perspiration is not observed in very young children but one would find it replaced entirely by moisture.

(*d*) Fever always presents considerable remissions in the acute diseases of young children; but in chronic diseases it is almost always intermittent.

(*e*) When children are asleep their pulse diminishes from 15 to 20 beats. The muscular movements, which accompany cough, crying, agitation, exposition to heat, raise the pulse from 15 to 30 or even 40 pulsations.

(*f*) The diseases of youth always retard the process of growth: such as syphilis, rickets, and tubercular and glandular fevers.

(*g*) Always try to ascultate before resorting to percussion and note the back of the chest is the most important to do so in a sick child. Both back and front should be examined.

(*h*) Always remember that dullness on the right side posteriorly is a normal physiological condition, owing to the abdominal pressure of the abdominal organs and notably the liver (as especially affecting the right side) is pressed upward. (Dr. Vegel)

So it is always better I think, to be on the alert, not to take such dullness in children with fever as pre-Pneumonia or Pneumonia.

(38) The *gestures* and the *cry* are more significant in children for diagnosis. In all brain fevers (meningial) the child puts its hand on its head, pulls off its hair, rolls its head on the pillow and beats the air. Whereas in all abdominal diseases the legs are

drawn up, the face is sunken and anxious with pinched features and the child picks at the cloths. In urgent dyspnœa it tears at the throat or puts its hand in the mouth, especially in diphtheria and pneumonia, when the symptoms are very grave with chyonestroke respirations. The cry is more appropriate. It is laboured or half suffocated or as if doors were shut between the child and the hearer in pneumonia and in capillary bronchitis; it is hoarse, brassy and metallic in whooping cough with crowing inspirations; it is sharp, shrill and solitary in all acute cerebral diseases; it is moaning and wailing in all infectious fevers and tubercular peritonitis. Obstinate and long continued crying lasting for hours is referable usually to one of the two causes—ear ache or hunger; it is louder and shriller on coughing or on moving in all pluseretic affections; a cry accompanied with wrigging and writhing and preceding defecation is intestinal; moaning with heaving the sides of the chest is especially characteristic of the alimentary canal as in worm fever, gastro-enteritis, summer diarrhœa (milk infection) and in hyperpyrexia. (Fisher: *Diseases of children.*) A close observer in an Indian Children's Hospital will have many chances to add more to the above on communal basis stressing chiefly on (1) status, (2) caste, (3) feeding, (4) social hygiene (5) climate and (6) diseases peculiar to tropical countries. Such delicacies in gestures and crying are very different to note.

(39) From the birth onwards, it is indispensable to examine and note the changes of the *tongue* as it is the index of the child's health. The chief indications derived from such observations are the following:

(40) *Asphyxia Neonatorum*: This needs no elaborate description as it is due to deficient oxygenation of the blood and the resulting symptoms are in part produced by the poisonous action of carbon dioxide on the nerve centres of the medulla oblongata—the centre and regulator of the respiratory movements and the seat of the motar impulse which gives rise to the first act of respiration. The infant during intra uterine life is dependent upon the placenta s supply of oxygenated blood. Any interference with the ntal circulation brings on this unfortunately fatal asphyxia. The various causes that bring on this condition are:—

(*a*) Pressure on or twisting of the umbilical cord during labour;

(*b*) Premature detachment of the placenta;

(*c*) Forced rotation of the head in difficult forceps-application or great contraction of the uterus in head-last cases;

(*d*) Shortness of the cord from its encircling the neck tightly after the head is born;

(*e*) Prolapse of the cord in protracted delivery during breech presentation and in prolonged labour following the premature discharge of the liquor amnii;

(*f*) Cerebral hæmorrahage;

(*g*) Defective development;

(*h*) Premature detachment of the placenta;

(i) The death or serious illness of the mother during labour.

(Edger's Obstetrics and Koplik's Diseases of Children.)

Young practitioners in Midwifery should be very careful in tackling such emergencies. It is patience and nothing more. It throws one's life's honour at stake. If the asphyxiated new born is resuscitated in time, bringing to mind the various causes that wrought it on and waging a regular war with the new born to revive it to life, there will be a lasting name and fame among women who will recommend him to any succeeding emergent case. (Papa Rau's observations).

(41) From an American point of view, the causes of "still—births" on clinical and autopsical study have been summarized in the following table to enlighten the anxious practitioner, who has a taste to deal with the diseases of the newborn infant and who is invariably pressed by the puerperal mother and her relatives as to why the new-born is found dead before delivery. I think one would take a deep sigh rather than give a satisfactory answer to such questions relating to causes of still-births, as he has to be guided

mostly by social ethics and other environmental observations. Though this table is not exhaustive from an Indian point of view, yet it gives a fair insight into the causation of still births. Official reports (Indian) are not available in many cases for purposes of comparison, as there are no separate children's hospitals in India.

Prematurity		...	86
Syphilis	Premature	...	19
	Full-term	...	13
Broncho-pneumonia	Premature	...	9
	Full-term	...	11
Toxemia		...	20
Intracranial Haemorrhage	Premature	...	26
	Full-term	...	23
Malformations		...	14
Asphyxia		...	41
Acute nephritis		...	3
Status lymphaticus		...	1
Fracture of the 7th cervical vertebra		...	1
Rupture of liver		...	3
Haemorrhagic disease		...	2
General infection		...	4
Birth pressure		...	10
Congenital heart disease-placental infraction		...	1
Unknown		...	7

(The Pennsylvania Medical Journal No. 33 Feb. 1930 pp. 298-302.)

The Indian Practitioner is cautioned not to be hasty in pronouncing the cause of the still-birth (without an autopsy), if objective causes do not satisfy him to be definite in his pronouncement. If he neglects this caution and thrusts it into the background, he might put an extra pressure on the exhaustive mother and the anxious father, resulting in their "broken" health, or perhaps in a haunting nightmare goading them to divorce or separation, lest such unhappy recurrences of still-births should be possible. (Papa Rau).

(42) Milk bottles, cups and vessels have been proved to be the possible causes of infantile diseases in all the civilized countries, where mothers have not been taught to attack the dangers that are attendant upon such usage of unclean bottles or vessels which hold milk for the use of infants. The maternity and infant welfare craze has taken this serious question of averting or

avoiding such epidemics among the Indian New-born and infant-in-arms, by educating the ignorant self conceited mother, who is not incapable of putting her baby to her breast. It is an admitted fact that milk (cow or human) drawn into vessels (silver or brass or gun-metal or aluminium), bottles, thermo-flasks or cups (glass, aluminium and enamel) among the Indian households and kept for the new-born and infant-in-arms are the dirtiest possible, when examined in the light of good hygiene. I have seen many such vessels or cups and thermo-flasks (glass or enamel) without any covering lids, thus exposing the milk to many ravages of the air and dust and flies. It is no wonder that the milk thus exposed is "sour" and gives the smell of stinking butter-milk. Want of a fresh supply instead, poverty to buy afresh are among the main causes that go to cause indigestion, diarrhoea gastric irritation, gas in the intestines and other disorders among infants thus fed. Of course, if the flies take a fancy to the bottles and vessels the enormity of danger is no less significant to the infants than it is to adults. Among the Indian households there are a variety of crude modes of administering milk to the infants through wooden spoons (bamboo), thumbsâs and cups with beaked grooves (gun metal, or silver or brass or aluminium). In whatever shape and form they are used, it is imperative to teach the house-wife or nurse through the health inspectors the following instructions to avoid possible causes of epidemics:—

1. Health visitors (Indian) should be given powers to condemn such vessels, thermoflasks feeding cups and bottles, as are found unclean;
2. To condemn the use of uncovered vessels;
3. To condemn storage of unwholesome milk and giving such fermented milk to infants;
4. To permit storing of milk only in jars (small) with covering lids of a washable nature;
5. To condemn such stored milk if it has been standing for more than 3 hours;
6. To condemn re-boiling or heating before use as it is likely to curdle, if it is already sour;
7. To condemn such milk (stored), if it is not examined first before giving it to the infant.
8. To insist on mothers to put their babies to breasts only after a thorough wash;

9. To exempt mothers, who are medically and physically unfit to suckle;
10. To exclude all those infants from their mother's breasts as are physically and medically unfit to suckle;
11. To dry all those vessels etc. after hygienic cleaning:
12. To condemn such breast feeding in cases of mothers suffering from leprosy, syphilis and tuberculosis, latent or otherwise.

43) *Continued sub-normal temperature* in infancy is a rare thing to note in one's practice. Invariably one would be asked to explain why this untoward thing happens among infants. If I am asked to explain why this happens and where it is often met with, I should say that it is often a thing neglected by us from serious observation, though want of seriousness has often an attendant danger following it. On many occasions, I have come across among the pro-literate class infants with low temperature. During the earlier days of my practice, I was unable to tackle such cases. However, through reading proper journals on the subject (British Journal of Children's diseases and American Journal of pediatrics) and a more intimate contact with such cases, I gathered more and more knowledge regarding this depression of temperature. Cheney's (J.A.M.A. 1911 II p. 822) classification of the causes of continued depression of temperature in infants has given me satisfaction as it compares favourably with my impressions on such cases hitherto left doubtful and questionable.

(1) *Insufficient heat production*: Under this heading come those cases due to starvation or stenosis to infantile atrophy or athresia, to prematurity and to inanition. (2) *Excessive heat loss*: under this heading come all those cases caused by the loss of body fluids, as in severe diarrohea (summer or gastric infection due to bottle-feeding) or haemorrhages and perhaps also in certain skin diseases. One would not miss such results in his practice if he were a bit anxious and observing. I have come across a lot but failed to note continued subnormal temperature in individual cases which would never be steady under one's treatment for a close observation.

(3) *Disturbed heat regulation*:—Under this heading one would note all those cases occurring in diseases of the heart or nervous system and those due to drugs, unconsciousness or intoxication. Examples are not far to seek if one were to look to his daily routine among the diseased children.

(4) *Diseases of metabolism*:—This includes such diseases as anæmia (infantile), infantile diabetes and myxœdema. (B. J. C. D. 1911 June P. 270.

1911 June p. 270). I have noticed for months together continued sub-normal temperature in a boy of 3 years who was subjected to occasional haemorrhage, but found on history from his father, that it must be due to his father's syphilis and no wonder that the boy is subjected to hereditary syphilis with heart complications. There was another case of infantile diabetes which had run on continued sub-normal temperature for over 2 years. Here also the girl seems myxoedemic and puts on idiotic appearance but not cretinism. History from her father revealed syphilis and thus hereditary. But under "insulin" the girl showed signs of normal rise of temperature but idiotic appearance and other characteristic symptoms as heard, never shown improvement to normality unless it is treated with "specific" treatment combined with "glandular" therapy as suggested by Fisher, Koplik and Graham. There is no salvation, I believe, in the long run to the girl in question.

IRRADIATED OILS CONTAINING VITAMINS*

BY

DR. K. PRADHAN, L.M. & S. (BOMBAY UNIVERSITY), NAGPUR.

Considerable amount of interest is evinced of late in irradiated oils, both vegetable and animal, as is evidenced by several brands of them in the market now. In the following translation of Sanskrit verses we have an idea of the results of clinical observations.

Irradiated Vegetable Oil in Pre-historic Ayurvedic Medicine :—

"Sacred, sweet and delicious to taste, easy to digest can be used indefinitely without harm to the body or mind,"

Externally—for skin diseases; as a healing balm for bad sores: for baldness and increasing the growth of hairs.

Internally—for increasing mother's milk; to make teeth strong and dentition easy; as a tonic in urinary diseases and gonorrhoea; for cough (Kapha Dosha); for liver complaints (Pitta Dosha); for rheumatic and nervous complaints (Vata Dosha): for increasing appetite; for increasing brain and muscle power; for improving the quality of blood; for increasing weight; for cooling the excessive heat in the body particularly felt in palms and soles of feet; strengthening the heart's action; for removing chronic constipation; for curing sprue and Tuberculous Ulcers; for increasing Virility; for Consumption; for curing Low fevers; for increasing strength in bones; for curing discharge of pus fram ear; for chronic Sore eyes".

Under the circumstances the advent of indigenous preparations of considerable merit is to be welcomed. IRVO is one of such preparations before us. IRVO is claimed to be a mixture of cold-

*Specially contributed to the Antiseptic

drawn oils of *til* and cocoanut after specially treating the seeds before expressing oil from them and after the oil is extracted. Clinical, Biological and Laboratory experiments of the preparation go to prove that it contains A.B.D. & E Vitamins.

Physical Properties:-Irvo is yellowish or yellowish red in colour. It has a charming odour and is bland to taste. It remains unaffected under extremes of temperature. Its specific gravity is 0·916 at 77°F.

Chemical Properties:—The saponification value of IRVO is is about 193; its Iodine value 103. The unsaponificable matter does not exceed 1. 5. per cent.

TESTS FOR VITAMIN A.

Tests:—The usual chemical test for Vitamin 'A' is that of Antimony. This test, however, is only applicable to Animal Oils such as Cod Liver oil etc. IRVO being a purely Vegetable oil does not respond to this test.

Biological tests:—Biological experiments on a small number of White Rats have proved, the high 'Vitamin A' content of the preparation.

Clinical tests:—'Vitamin A' is noted for its uses, almost as a specific, in cases of Keratomalacia, Generalised infections etc. IRVO, whenever administered in such diseases has given very gratifying and very quick results. Thus it is proved Irvo contains 'Vitamin A'.

TESTS FOR VITAMIN B.

'Vitamin B' is water-soluble and is destroyed by boiling.

This Vitamin is well-known as an Antineuritic and for its growth promoting properties. IRVO which is cold drawn and not boiled has proved efficacious in such affections and when administered to children with stunted growth, has proved to be an important factor amongst the drugs used for the purpose.

TESTS FOR VITAMIN C.

Though IRVO does not contain 'Vitamin C' yet 'Vitamin C' could be very easily added to it. IRVO is perfectly miscible with orange juice and orange juice is universally known for its 'Vitamin C' content. When IRVO, therefere, is taken with orange juice it proves very efficacious as an Antiscorbutic.

TESTS FOR VITAMIN D.

Laboratory experiments have proved that '005 grm. of IRVO cured Experimental Rickets in 10 days, in comparison with the best available Cod Liver Oil which required the dose of '00825 grm. The increase in weight of these experimental animals was 3.6 per cent more in the case of IRVO than in Cod Liver Oil. Clinical experiments were made by administering IRVO only stopping all

other treatment to rickety children alone in Children's Hospital. It gave gratifying results. *X-Ray* photos of these children were taken both before and a few days after the administration. It proved that IRVO exerts surprisingly quiet and remarkable improvements.

TESTS FOR VITAMIN E.

Administration of IRVO to white rats and fowls has proved that IRVO contains 'Vitamin E' also. This is also tested clinically.

Thus Irvo seems to have remarkable value in Keratomalacia, Generalised infection, stunted growth, Rickets, Convalescence after acute illness, Sprue. Low Fever, Emaciation, Marasmic conditions, fissure, chronic constipation, Menstrual troubles, Weakness, Neuritis, Colds, Strumous Ophthalmitis etc. etc. Various reports of Doctors and intelligent laymen corroborate this. But these reports have not been given here for want of space.

Dose—For an infant under two years of age one drop with one drop of orange juice in ordinary boiled milk or the mother's milk. For children from 2 to 12 years of age 5 drops with orange juice in sweetened milk. For persons above 12 yeas of age, 10 drops with 10 drops of orange juice with sugar or sweetened milk.

Hereunder is given report of tests made by an independent laboratory. This was from product submitted in January 03 Since then the quality and method of irradiation have been considerably improved with marked clinical results.

INDEPENDENT LABORATORY TEST REPORT OF IRVO.

Physical characters: A homogeneous, pale yellow mobil oil with sp. gravity: strong nutty odour; bland taste.

Pharmacological investigation:—

While rats have been usually recommended for the kind of Vitamin Assay experiments, as they are not available here, young mice about 12 weeks old were used for the investigation: 18 animals were taken up in all and Nos. 1-16 were placed on 'Rachitic diet' suggested by Miss Katharine H. Coward starting on 14th April 1930 and Nos. 17 and 18 on non-Rickety diet. The animals were weighed at the commencement and placed each in separate cage. The Rachitic diet was composed of:

1. Yellow maize ground 76 %, 2. Gluten 20 %. 3. Calcium carbonate 3 %, 4. Sodium chloride 1 %.

No. 1, Maize was bought locally and ground in this Laboratory under observation and sifted.

No. 2. Prepared daily in the Laboratory.

Nos. 3 and 4. Mere products used.

Suitable quantities from time to time were weighed and each bottled separately with the No. labelled on it usually about 5 gr. (total) were given and found sufficient.

Non-Rachitic diet for Nos. 17 and 18 consisted of parched rice, nuts, bread, milk, etc.

Drinking-water and Distilled water, prepared from time to time in this Laboratory to which the following solution (2 drops to 1) was added according to Pettinger.

Iodine 5 grain Pot Iodine 10 gr. Distilled H_2^0 100 gr.	Stock solution.

The waste food was collected and weighed to find out how much was ingested. The animals also were weighed weekly.

W—

WEIGHTS—CHART.

C –

Mouse No.	Color	Diet	Weight in grms.			Oils Started.	Test period over.	6-6-30
			14-4-30	22-4-30	30-4-30	19-5-30	30-5-30	
1.	C	R	20·6	20·6	20·4	20·0	18·0	21·0 K
2.	C	R	19·2	20·0	20·5	19·6	19·0	21·2 K
3.	C	R	16·4	18·0	18·0	18·0	18·0	Killed
4.	W	R	18·5	19·9	20·5	...	...	Killed
5.	W	R	17·6	20·5	20·7	22·6	...	Killed
6.	W	R	17·6	17·0	17·2	...	...	Killed
7.	W	R	15·5	16·0	16·0	18·1	18·3	Killed
8.	W	R	15·4	15·8	15·9	19·0	20·1	21·0 K
9.	W	R	16·5	16·1	15·4	18·0	19·0	18·0 K
10.	C	R	17·0	17·6	18·4	18·1	20·0	Killed
11.	W	R	15·6	16·8	17·4	18·0	19·5	Killed
12.	W	R	15·3	15·0	15·6	18·0	20·0	Killed
13.	W	R	15·4	15·2	15·0	18·0	20·0	Killed
14.	C	R	14·0	15·0	15·7	17·0	19·5	21·3
15.	W	R	17·5	18·5	17·4	16·9	20·0	22·5
16.	C	R	19·0	18·0	18·5	16·2	17·1	Killed
17.	W	N R	19·2	19·5	19·0	19·0	20·1	20·4
18.	C	N R	22·8	18·0	22·0	19·9	Killed	

FOOD—CHART.

No. of Mouse.	Food Ingested			12-5-30.
	22-4-30. (in grms)	30-4-30	8-5-30.	
1	27·5	25·9	25·3	
2	35·0	27·0	27·1	
3	32·0	27·0	26·0	
4	29·0	21·5	22·0	
5	27·0	24·5	24·7	
6	30·5	27·8	25·0	
7	28·0	21·0	21·2	
8	29·0	24·0	23·2	
9	30·0	20·8	20·4	Rickets developed.
10	31·6	21·0	21·3	
11	27·0	29·0	29·2	
12	31·0	25·6	24·3	
13	28·0	20·0	21·0	
14	31·0	24·6	24·7	
15	26·5	19·0	19·0	
16	31·8	23·5	21·5	

By 8th of May i.e., 25 days from the commencement almost all the mice began to show difficulty in movement,—particularly of the hind legs. The same diet was continued and No. 4, 5, 6 and 18 were killed for examination of the bones (No. 18 was a member on NR diet) what is called Lime Test was applied. The animals were kept killed by keeping them under a glass bowl in which cotton was kept and ether was poured on to the cotton. Death resulted in 2 to 3 minutes. The animal was then pinned on a board with dorsal surface downward and the bones of the upper and lower extremities were removed and cleared. Then they were placed separately in 4% Formation for over 6 hours; then they were separated and cut longitudinally and placed on a solution of 1·5% Silver Nitrate exposed to light for 2 minutes and then transferred to Distilled water and examined. It was at once noticed that a white line which was the unstained, uncalcified, ricketty Epiphyseal line was marked in the bones. In female this was found better demonstratable than in any other bone and so this bone may be taken as most serviceable in young mice.

No. 18's bones showed absence of such line evidently because it was on a non-rechitic diet.

20-5-30. It was time, therfore for starting the oil administration. For comparison a well-known Maker's Cod-liver oil and malt was used.

RIVANOL IN EYE PRACTICE.*

BY

DR. G. JOSEPH GNANADICKAM,

Medical Officer, Eye Department, Swedish Mission Hospital, Tirupatur, Ramnad Dt.

Rivanol is known as a non-irritating bactericide in suitable dilutions. I do not propose to deal here with its composition or mode of action. Of late, it has got into a prominent place in the therapeutic arsenal of surgical clinics in the west and also in India. Its advantages in the treatment of certain eye diseases are not less conspicuous. Our experience with the drug in more than 200 cases may be worth reporting.

LACHRYMAL Sac.

Before the introduction of Rivanol, one generally hesitated to extirpate the sac after an incision for Lachrymal abscess. To wait till the whole inflammation settled down meant considerable delay and perhaps another abscess in the meanwhile. On the other hand, to operate on the inflamed tissue was to court disaster. There was the constant danger of the infected material being thrust into the deeper parts, or sometimes into a blood vessel, either through the force of the injection of the anaesthetic fluid, or during the operative manipulations. What was required was an antiseptic which, added to the anaesthetic solution injected, could make the infiltrated area an antiseptic field for operation and which even if forced into a blood vessel or the healthy neighbouring tissues, could act as a potent disinfectant on the infected material carried along with it. There are many drugs which answer these requirements but the disadvantages with them are that they are neither non-irritant nor non-poisonous if used in their potent strength. It is here that Rivanol comes in handy. In a strength of 1 in 2000 or even 1 in 1000, it causes no irritation whatever to most tissues, and yet, is a reliable bactericide.

The way to prepare this combination is simply to dissolve the Rivanol powder in the Novocaine-Adrenaline solution that is to be injected. Formerly, we used to prepare it as follows :—

Rivanol	...	0.01.
Novocaine 2% solution	...	20. c.c.

It was ·ying job to take out with any amount of exactness this minute ty of Rivanol and certainly an impossible task to prepare a antity of the solution. After all, the solution

*A paper rea hettinad Medical Association and specially sent to the Antiseptic fo on.

used for one case was less than even one-fourth of the quantity prepared. The rest was a waste, as fresh solutions are always preferable for another day's use.

Some surgeons have advised the combination in this way.

Novocaine 4% solution	...	5 c. c.
Rivanol 1 in 1000	...	5 c. c.

which makes a two percent and 1 in 2000 solution of Novocaine and Rivanol respectively. The most convenient way that we have found is to dissolve the Novocaine in the Rivanol solution itself as follows :—

Novocaine	...	0.10.
Rivanol 1 in 2000	...	5 c. c.

Adrenaline as usual

In this way the required quantity, however small, can be easily prepared to the exact strength.

CONJUNCTIVA.

Another field for the use of Rivanol is in the treatment of purulent conjunctivitis, especially Gonorrhœal ophthalmia. The conjunctival sac is in these cases irrigated with 1 in 1000 Rivanol solution. The number of irrigations a day depends on the virulence of the infection and the copiousness of the discharge. Generally, we have found a considerable dimunition in the amount of discharge and in the swelling by the third or fourth day; and, in a week's time, there is complete subsidence of active symptoms. Of course the usual treatment with Ag. Nitras, milk injections, etc., is given at the same time. But the addition of Rivanol hastens the recovery.

Rivanol drops 1 in 500 are sometimes good in acute conjunctivitis, but there is nothing to replace silver in its treatment.

There are some cases of chronic catarrh which yield to no treatment whatever. We usually see a chronic irritation, constant lachrymation, photophobia and generally a thready discharge. Beyond some staphylo and streptococci and a few pneumococci, no other organisms are found in the conjunctival smear. Powerful antiseptics and astringents irritate the conjunctiva still more and weaker ones are powerless over the bacteria. These are the cases for the non-irritant, bactericidal action of Rivanol. Irrigations with 1 in 2000 or even 1 in 1000 Rivanol have shown marked results in many instances.

They reserve debridement for that group, as in other wounds in which there is localized destruction, not attempting it unless the local and systemic conditions warrant. If used indiscriminately it may be a source of real danger. The greatest sphere of usefulness for debridement is that form of burn associated with localized wet or dry gangrene manifested by demarcated sloughing, or parchment like attempted repair. There is also a small group of burns in which early debridement and immediate plastic repair may be attempted to prevent inevitable contractures leading to later plastics. Chemical debridment e. g. tannic acid procedure seems to have the greatest merit.

They know of no method to prevent Keloidal formation, but from their experience, they say that it is less prevalent since the adoption of exposure method. It is their practice not to interfere surgically early in Keloids because many of them spontaneously recede and others are softened by X Rax therapy.

For burns of minor degree there is no real objection to occlusive dressings of the paraffin type; but obviously a retentive covering has no more place in a discharging burn than it has in a discharging wound from any other source. (*Bulletin of the New York academy of medicine.*)

(*f*) F. W. Bancroft and C. S. Rogers state that some important points should be observed in *the late treatment of burns* even when they have been treated with acid tannic. The splinting of the granulation tissue by the rigid acid tannic membrane, while epithelization is in progress seems to prevent contractions of the scar tissue. Infection, however, frequently occurs beneath the tanned membrane, and in such cases the eschar should be debrided and the underlying cellulitis treated. Acriflavine, 1 : 5000, applied as a wet dressing, tends to diminish infection and apparently aids the epithelization. In deep third-degree burns, apply skin grafts soon after the sloughs separate. When granulating areas have been infected and there has been a delay before grafting is attempted, it is advisable to excise the scar tissue down to the underlying fascia. Pinch grafts immediately applied are usually successful. (*Archieves of Surgery, May 1928*).

(*g*) Tomb prepares Lint calcis chlorinata in the same way as B. P. Lint Calcis, substituting liquor calcis Chlorinata B. P. for liquor calcis. He reports that burns of all kinds treated with Lint Calcis chlorinata heal quickly without suppuration or rise of temperature and that slough and dead tissue rapidly separate. The liniment should always be prepared fresh. (*B.M.J., April 24.*)

(*h*) Wulff praises the Rooring dressing for extensive burns—The injured area and the neighbouring skin are first thoroughly cleansed; an anaesthetic may be required. The entire wound is then covered with rubber tissue (sterile) containing many small slits; over this a thick sheet of 1% silver gauze is applied covered by absorbent cotton and bandage.

(*i*) Dodge gives the following new dressing for burns:- melt together with equal parts of lamb's tallow and castor oil; heat the mixture until blue smoke is produced. Dip roller bandages in the solution, and lay over the surface in overlapping fashion.

(*j*) Straling Loving recommends the following in 1st and 2nd stages:—

℞

amyli Zea maidis 2 oz.
ol Gossypii Misce 5 oz.

Sig.—Spread thickly on a sterlized surgeons' gauze or cotton bathing and apply as a dressing.

(*k*) Bamberger recommends the common household washing soda as a remedy for burns. A crystal of soda is dipped into water and then gently rubbed over the burnt spot; the pain ceases almost immediately in burns of 1st degree; in 2nd and 3rd degree burns a compress wet with a 10% solution of soda may be applied, or the soda may be added to the continuous water bath. If used at once, the treatment seems to prevent the formation of vesicles.

(*l*) The foollowing has yielded most excellent results in burns of 1st and 2nd degree on many occasions:—

℞

acid carbolic grs. v - x.
Bismuth subnit dr. i.
Petrolati oz. i.

Misce, Sig:—Apply on a lint; on application the pain subsides at once and rapid granulation and healing of the wound follow.

(*m*) Ohleyer treats the burn of third degree as follows:—

Twice daily the wound is covered fairly thickly with magnes carbonas, and over this a double layer of gauze, upon which a layer of absorbent cotton and finally bandage is applied. On redressing the portions of dressing which adhered to the wound are carefully removed with pads of absorbent cotton dipped in a 1 : 1000 solution of lysol.

(*n*) T. S. Wassiljew records a case of extensive burns in which the chest, abdomen, penis and scrotum and fingers of both hands were all burned. Treatment consisted in soothing inflammation and

Misce

Dextrin is mixed with Spt. camphor and tincture aloes. Lead nitras and tannin are dissolved separately in water and mixed. This mixture is gradually added to the dextrin suspension and the whole thoroughly mixed to a homegeneous mass.

Sig :—Spread on a burnt surface. Immediate relief from

Ichthyol	
Liq. Petrolati	drs 4
Lanoline	drs 6
	drs 6

M. In burns of 1st degree apply locally on a gauze.

7. Wash with 1:4000 bichloride lotion; dust lightly with Iodoform; apply protectives and dress antiseptically.

XIV. *Biochemic treatment of burns* :—

(1) Ferrum Phos—In inflammatory condition, pains etc.,
(2) Kali mur—after ferrum phos, internally and locally.

XV. *Drugs usually employed* in *Burns* in *Ayurveda* :—

1. Basella alba (Hind-Poyi)—the leaf-juice thorougly rubbed and mixed with butter is a soothing and cooling application.

2. Cocos Nucifera (Hind-Nariyal)—the fresh oil prepared by boiling the milk of cocoanut is an useful application.

3. Gossypuim Indicum (Hind-Kapas)—the leaves of the plant are crushed and applied as a poultice to burns and scalds. Cotton is burnt and applied to ulcers to promote healthy granulations.

4. Indigofera Tinctoria (Hind-Nila)—Indigo applied.

5. Lawsonia alba (Hind-menhdi)—the bark is applied in the form of a Decoction.

6. Linum usitatissimum (Hind-Alsi, tisi)—applied in the shape of Canon oil.

7. Magnifera Indica (mango)—the ashes of the leaves are a popular remedy.

8. Manjishtadya Ghrita—pepared with ghee and a paste composed of equal parts of madder, red Sandal wood, and the root of Sanseviera. zeylanica and applied to burns.

9. Oryza sativa (Rice)—Rice flour dusted thickly over the surface forms a very cooling and soothing application. It allays heat and irritiation. It should be used soon after the injury and dusted thickly over the whole burnt area, so as to absorb any discharge present. and at the same time exclude air as far as possible. If in a few days, this becomes hardened and irritating, a warm rice poultice should be applied, so as to soften it and allow its easy removal, the surface should then be dressed with liniment.

10. Portulaca Oleracea (Common Indian [illegible]plane; Hind-chota Lunnia)—The plant and seeds are used in the form of paste.

11. Rubia Cordifolia (The Indian Madder; Hind—Manjit), used as a paste.

12. Rumex crispus (yellow dock; Hind— chukkh).

13. Saccharum Officinanrum (sugar cane)—In cases of burns by fire, treacle is applied instantaneously on the burnt parts. It alieviates pain.

14. Sesamum Indicum (Hind-Til)—Equal parts of Sesame oil and lime water is a popular dressing.

15. Silicium Salts.

16. Solannm Tubosum (Potato)—a household popular remedy, applied as a paste with much benefit.

17. Terminalia chebula (chebulic myrobalan; Hind -Harr)—a fine paste made by rubbing the fruit with a little water and mixed with carron oil and applied to buand and Scalds, effects a more rapid cure than with carron oil alone.

18. Trigonella Foenum (Fenugreek; Hind methi)—a poultice of leaves is useful owing to their cooling properties.

19. Triticum Sativum (wheat)—wheatened flour used as a dusting powder.

20. Urtica Dioica (the common stinging nettle)—though a native of Europe, large number of its species are found in India. The tincture diluted with an equal quantity of water and put on a cloth is applied.

21. Zinc (Jasta) Salts—chiefly oxides etc., used as a dust or an ointment.

Cases & Comments

AN INTERESTING CASE OF FOREIGN BODY IN NECK

BY

T. S. SHETTY

Medical Officer, and Secretary, Chettinad Med. Association.

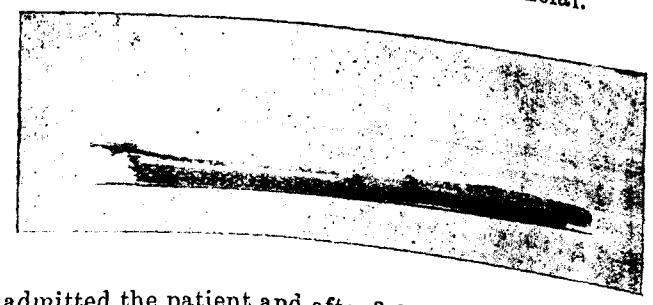
A young man of about 35 years came to the Hospital about a month ago from a distance of over 80 miles, with a sort of wry neck on the right side with slight swelling, pain and with head slightly tilted to the opposite side.

History of the case:—He is a poor farmer. While he was grazing his cattle about 13 months back he climbed a tree to cut some leaves for the goats. Just then a thunderbolt fell near him and with the shock of it, he fell down unconscious to the ground He was lifted home and there, after consciousness had returned, found a small wound in the anterior triangle of the neck which was bleeding. Apart from it nothing could be found.

Ordinary dressings were applied but it refused to heal. The swelling, however, gradually subsided with fomentations. He attended for a number of months 2 or 3 hospitals and with all dressings nothing came out. There was plenty of swelling which subsided with fomentations. He was disgusted with life, all treatments having failed. He could not carry any load on his head as a farmer, and he came to this hospital from such a long way without the knowledge of his people prepared to live or die as the case may be.

Condition on admission:—Patient pretty well built. Right side of the neck swollen, head tilted to left side. Three sinuses on anterior triangle of neck on a level with the hyoid bone. Three sinuses on posterior triangle of neck, separated from the anterior by a distance of nearly 5″, and from all of these few drops of thick pus coming out.

I put a probe and made a thorough examination. I could feel some grating sensation 2¾″ deep from anterior sinus openings and 3″ deep at posterior sinuses. As there was no history of a foreign body, I thought it was possibly a carious bone or a hypertrophic styloid process of the mastoid. But styloid process to my feeling ought to have been felt more superficial.



I admitted the patient and after 3 days of careful examination though nothing could be made out except that some foreign body ought to be there, I put him under *rectal narcosis with avertin*, made an incision 3″ long along posterior border of sterno-mastoid, burrowed down below the scalinei muscles, and at a depth of 3″ from the surface extracted a piece of a twig 4″ long. The other sinuses were laid open and scraped and the incision closed with fine sutures.

The wound healed by 1st intention. On the 10th day he was discharged, all sinuses having closed and the swelling disappeared. The interesting points in this are, to my mind, the difficulty to imagine such a big sized foreign body to be there in spite of the repeated findings on probing. Secondly its quiet stay for 13 months in the patient's neck, thirdly his ignorance of its presence and fourthly the narrow escape of the carotid vessels, with which the foreign body was in close relation.

AN INTERESTING CASE OF DOUBLE MULTILOCULAR CYSTIC TUMOURS OF BOTH OVARIES

BY

CAPT. SHYAM LAL B. A. M. B.

Civil Surgeon, Ballia

Patient:—A widow aged about 50 years was admitted into Ballia Female Hospital for tremendous enlargement of abdomen, on the 29th June 1930.

Duration:—About six months.

The abdomen gradually began to enlarge and in three months it assumed a big size. After that it began to enlarge more rapidly and in the next three months, it became three times bigger than what it was three months before. According to her statement, the enlargement began in the lower part of the abdomen. On being asked where it began, sometimes she put her hand just to the right of the middle line and sometimes distinctly to the right side. No other history could be obtained from the patient.

Present condition:—Feels much dragging pain and discomfort in the abdominal walls, bowels constipated, appetite poor, oedema on both lower extremities present, patient weak and debilitated face drawn and thinned out.

Menstrual History:—Before six months it had been very regular. For three or four months she had continuous bloody discharge. For the last two months bleeding stopped and in these two months the abdomen began to enlarge at an enormous rapidity

Menstruation commenced at the age of 14 and it had been very regular, free and without pain, except for the last 6 months

and during pregnancy and lactation. She had 11 children, all at full term, all deliveries normal; last child is 9 years old; 5 children living,, 6 died; husband died 6 years ago.

Inspection:—There was irregular enlargement of the abdomen—abdominal wall oedematous, superficial veins dilated, tumour filling all the regions of the abdomen.

Palpation:—Abdomen very tense; felt hard mass filling the abdominal cavity; the right part of the tumour felt like a cystic-like tumour and was to a certain extent moveable; on the right side the dullness of the abdominal wall continued and mixed with the dullness of the liver; however, by dipping the hand into the abdominal wall a gap was felt which showed that the tumour was not continuous with the liver; on the left side there was a hard solid mass extending from the left illiac region to the left hypochondriac region, just like an enlarged spleen; a notch was also felt as is felt in spleenic enlargement. However, a depression between the two tumours which could be well demonstrated by dipping the hand, gave the idea that there were two distinct tumours.

The difference in the consistency and feel of the tumour also suggested the same.

Circumference and measurement of the abdomen:—

1.	Umbilicus to xiphoid	
	Umbilicus to symphysis pubis	... 10″
	Umb. to right supr illiac spine	... 9″
	Umb. to left supr illiac spine	... 10″
	circumference above the umbilicus	... 11½″
	circumference at the level of umbilicus	... 40″
	circumference below umbilicus	... 42″
		... 44″

Examination per vagina:—Os patulous, cervix normal, uterus felt slightly enlarged, admitted sound up to 3," drawn to the left side, was novable, and did not feel forming part of the tumour. A lump could be felt in the right fossa.

Diagnosis after the above examination:—It was diagnosed that there were two distinct and separate tumours, the right side one quite different from the left. The right side one was diagnosed as cystic tumour of the ovary and the left one as the big enlarged spleen.

Operation:—Under ordinary aseptic precautions, the abdomen was opened, a long incision from just below the umbilicus to the

symphysis pubis was made, and a big cystic tumour of the right side was felt; it was filling the right side of abdomen and partly went up to the left of the middle line in the lower part of the abdomen; on pushing the hand up on the left side, a hard, separate tumour was felt just resting on and in touch with the right one.

So the diagnosis made by external examination seemed to have been confirmed, that the left tumour was the spleenic enlargement. The right tumour was tried to be pushed out of the abdomen and incision had to be enlarged about 2″ above the umbilicus as well. Some of the loculi were tapped; the tumour was pushed out of the abdomen, pedicle ligatured, and the tumour removed.

The tumour was a large one about 5 seers in weight. However, when the right tumour was removed, the left one slipped down and presented itself in the wound. Now on examination it was found that it was also another multilocular tumour of the left side, the feel of the tumour was harder, and the notch was due to a space between the two parts of the tumour.

It was also pushed out, pedicle ligatured and removed. It was a big one weighing about 4 seers in weight. The abdomen was afterwards closed. The patient made an uneventful recovery, sutures were removed on the 10th day and the patient discharged as cured on 20-7-30.

My thanks are due to Dr. Anand Swarup and Lady Doctor Miss A. Ram for their help during operation and to Lady Doctor Miss A. Ram for her after-care of the patient.

Points of importance in the case:—1. Difficulty in diagnosis.

2. Both ovaries were nearly equally affected, and both the tumours were big and nearly of equal size.

3. The history of the case distinctly points out that the tumours began about the period of meno-pause, probably due to sudden changes in the ovary at this period.

A CASE OF UNUSUAL CLINICAL INTEREST

BY

DR. PARMANAND AHUJA, M.B., B.S., KARACHI

Being first of its kind in my experience and paucity of such cases recorded in the medical literature are my apology for publishing my notes of the following case:—

A Hindu adult male, past the meridian of life, consulted me on 3-7-30 for fever, cough and catarrh, sore throat, pain all over the body, specially marked on the right side of his head; duration 3 days.

A cursory routine examination led me to prescribe for him as a tentative case of Influenza. Apparently the Influenza mixture and analgesics prescribed, failed to relieve him as I did not see the man till the 6th. During the small interval of three days he had passed through the hands of two medical colleagues who, as was related to me by the patient, were of the same opinion as mine. I impressed upon him the undesirability of changing hands so frequently without allowing sufficient time to watch and study the symptoms to treat them effectively. He bitterly complained of agonising and excruciating pain on the right side of his head which made him restless by day and sleepless by night, and drove him from door to door to seek relief but without avail so far.

This time, by appointment, I gave him a thorough examination and collected full facts of his history which are detailed as under:—

GENERAL REMARKS.

Patient belongs to the mercantile class, has led life of luxury and ease, with plenty to eat and to spare, sedentary in habits with a garry and a horse to carry him about. He has been an epicurian, a hard drinker, inveterate flesh eater, 'peg & plate' his constant companions after dusk, married at the age of 18 years but unblessed with any issue so far.

PAST HISTORY.

Gives history of Gonorrhoea in young age, no history of syphilis; suffered from painful swellings at the bases of both the big toes 7 years back, accompanied with fever and general constitutional disturbance. There was slight swelling and pain (which,

necessitated confinement to bed for several days) of the knee joints in subsequent years during spring season. There was recrudescence of the big toe inflammation 2 years back.

HISTORY OF PRESENT ILLNESS.

About ten days back he had an attack of fever with cough, cold and catarrh, running of the nose, watering of the eyes, sore throat, pain all over the body, especially marked on the right side of the head, frontal, parietal and occipital regions. He was treated by a Hakim who gave him some palliative medicine but without any relief.

PHYSICAL EXAMINATION

General:—Patient is stout and well nourished with a protruding belly. General expression is anxious and angry-looking.

Gastro-intestinal system:—Teeth normal, gums bit congested and bleed readily. Tongue is furred at the back and dry; bowels are constipated. Throat and tonsils congested, and red. Abdominal viscera can be felt with difficulty owing to thick layers of adipose tissue intervening between them and the examining fingers.

Respiratory system:—There is slight dry cough with little or no expectoration. There is slight catarrh of the upper respiratory passages. Lungs are normal.

Cardio-Vascular system:—Pulse is 90, full bounding. Temperature 100·40° F. at 6-30 P. M., regular in rhythm, high tensioned. Vessel-walls seem to be sclerosed and feel cord-like. Heart sounds are weak with accentuation of the 2nd Aortic sound, no murmurs.

Genito-urinary system:- Urine is scanty and high coloured Sp. Gravity 1030. Strongly acid in reaction, no other abnormality detected.

Loco-motor system:—Movements are free, no node or nodosities to be felt in the neighbourhood of any joints with the past history of swelling and pain etc.

Nervous system:—No other abnormality present.

Right side of the scalp from above the eyebrow in front to the occiput behind is tender on pressure which makes the patient draw up his facial muscles on that side in an angry frown. Pain is

throbbing in character, constant more or less but unbearable at times. Superficial veins on the temple stand out prominently.

Eyes.—Conjunctivae are dull and dusty in colour.

There is general baldness of the scalp.

DIAGNOSIS.

This time from full facts of his case I was strongly inclined to lay the charge of his complaint to his Gouty diathesis causing neuritis of his cephalic nerves. This was subsequently corroborated in consultation with a medical colleague.

TREATMENT.

Full doses of Salicylates with alkalies and colchicum were given which resulted in the amelioration of the symptoms to some extent. Acute exacerbations of the pain at night were controlled by analgesics like Pyramidon, codein etc. Patient still continued to run temperature up to 100° or so in the afternoon. Blistering at the temple and occiput was tried and proved helpful. During the course of treatment both the ears began to discharge and were treated topically.

Owing to unreliability of Colchicum preparations in the market it was thought desirable as suggested by my consulting colleague to try dependable antigoutic remedies like Murry's "Specific and Lavilles' Sol"; the latter proved more efficacious of the two and ultimately relieved the symptoms. It was not before a fortnight or so before the patient was able to move about. He was suggested to continue the treatment for some months and, coupled with discretion in diet and change in climate, he was reasonably assured of keeping his gouty outbursts under check.

POINTS OF INTEREST.

1. Conflicting character of the symptoms to lead astray the unwary.
2. The important bearing of full facts of past history without which the diagnosis, as in this instance, would have been far from easy.
3. The therapeutic test conclusively corroborating the clinical symptom-complex.

It is hoped that other medical men will give their views and references of cases of similar nature in their practice.

A PECULIAR CASE OF KALA-AZAR

By

DR. DEBENDRANATH BANERJEE, B.A., L.M.F.

Pantihal, Howrah.

It is a general belief that a person suffering from Kala-azar must have a huge spleen, but the case I am going to narrate below will clearly show that this cherished belief does not hold good in every case.

Jiban Kristo Samanta, a poor man of about twenty-five years of age, came under my treatment as a last resource, when he became tired of the treatment of a good many physicians of every rank. None of them could give a definite diagnosis but every one tried his best, in his own turn, to treat him with injections, drugs etc., for a few weeks. Thus the patient passed a tiresome period of about a year.

I examined the patient thoroughly. He was much emaciated; both the legs were oedematous to some extent. The spleen was very small but I was surprised to find his liver which was very very big. It was hanging about 4" (four inches) below the right costal arch up to a little above the umbilicus. His hair became rough and scanty. He complained of bleeding from his gum and he passed Dysenteric stool for the last three months.

The very appearance of the patient led me to diagnose the case to be a Kala-azar one. However, I took 5 c.c. of blood from his vein and kept it in a test-tube for the purpose of making a Formaldehyde test. I did not wait for the result but at once pushed ·05 gr. of stiburia dissolved in 2 c.c. of Distilled water, into his vein. The following mixture was prescribed for him :

℞

Ferri et Quinine Citras	g. v
Liq. Arsenicalis	m. iii
„ Strychnine Hydro	m. ii
Tinct. Card Co	m. xv
„ Gentian Co	m. x
Aqua ad.	℥iv

Mist. Send 12 such.

To be taken 3 times daily.

I asked the patient to come after 3 days.

An hour after, I took out the serum from the test tube, and put it into another one. To my utter astonishment, as soon as I dropped a single minim of Formalin, into the serum, it at once became cloudy, and in a few seconds, it became completely coagulated. Now my previous diagnosis was confirmed.

The patient required only seven injections of Stiburia, for his complete recovery, of which two were ·05 gram, two ·10 gram, two ·15 gram and one only ·20 gram. I asked the patient to take a few injections more but he was very poor and could not afford it. However, a few months later I saw him and, to my entire satisfaction, found him much improved in health. His liver was a little below the costal arch, but he complained nothing of it.

The peculiarity of the case was this, that there was no enlarged spleen, though the patient suffered for about a year, from Kala-azar, and that there was the presence of huge liver, which also yielded to the injection of Stiburia.

AN INTERESTING CASE OF CHRONIC RHINITIS

BY

DR. M. N. PALADHI L. M. F. (BENGAL),

Baijnath Hospital, almora Himalayas

On the morning of 3--11—30. a young Mahommedan of the name of Barkatulla came to my Hospital with the following symptoms :—

(i) Constant pain inside the nostrils.

(ii) passing of thick, yellowish, sticky cough specially early in the morning.

(iii) sticking of dry flaps inside the nostrils.

(iv) Congestion of the skin of both nostrils accompanied with swelling.

(v) Constant headache, with redness of the eyes and insomnia due to the ailments noted above.

Next I examined the case medically which revealed the case to be of chronic Rhinitis.

Treatment :—Locally—I gave him a (*a*) nasal spray once in the every morning containing :—

℞

Sodii Bicarb	3ii
Acid Carbolic	m x
Ammon Chloride	3 iii
Aqua Distillata ad	1 pint
Fat mix to	tio i

(*b*) Chromic acid 2% applied to the Nostrils twice a day.

(*c*) Wash with Hydrogen peroxide in the evening. Internally :—the following mixture was prescribed :—

℞

Sodii Salicylas	...	gr. viip
Spt. ammon aromat	...	m XV
Tr. Camphor	...	„ XX
Tr. Zinger	...	„ XXV
Aqua chloroform ad	...	„ ʒi

Ft. mix One. Send 12 such.
Sig to be taken every 6 Hrs.

Treating the patient in the above times for a fortnight almost cured him of his Nasal ailments and the patient was discharged from the indoor ward,

Next he took medicine from the outdoor department for another ten days and I am lucky enough to see the man totally cured. Still I advised him to take malt Extract of Codliver oil, for a month or two.

Note.—My object of producing this case before the medical world is that the rapid response which I got in treating this case in the above lines.

Medical Men's Success in their Career.

"Lancet" endorses the following outlook on the part of the Editors of the "Antiseptic'. as practical.

"The medical profession in their dealings with the lay public, have a hard time in convincing them of the benefits of fresh air, pure water, nutritious food, good exercise, sound sleep and a host of other things which are indispensable not only to cure them of their maladies but also to prevent them from contracting fresh ailments. The lay public consequently require to be educated too in matters of health and hygiene if the medical profession should claim absolute success in their career."

"Health" the popular illustrated monthly on health topics edited and published by the Editors of the "Antiseptic" since 1923 in English, Tamil, Telugu and Canarese aims at educating the public in matters of health.

It tells the very things which Medical Men want their patients to know. It promotes confidence and understanding between them and their patients. "Health" is in short their representative, the ideal magazine for their waiting room tables.

Notable health authorities write to "Health" in entertaining non-teachnical style.

Shall I enlist you as a subscriber ? If so, for which edition ?

"Health" is attractively and neatly got up and hereunder is given the contents of the latest issue. The annual subscription is only Re. 1-8 inclusive of postage for and edition. A specimen copy will be sent to you free if desired. Please address your communications to the Manager. P. O. 166, Box Madras.

CONTENTS, DECEMBER 1930 ISSUE.

Short articles of about 2000 words from you are also welcome.

The Antiseptic

ESTD., 1904.

A Monthly Journal of Medicine & Surgery.

Editors: DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

Editorial and Publishing Offices:—323, Thambu Chetty St., Madras.

Annual Subscription Rs. 5. Foreign, 10 Sh., Post Paid.

Vol. 27] DECEMBER, 1930 [No. 12

THE SURGICAL TREATMENT OF PULMONARY TUBERCULOSIS

Surgery in the treatment of pulmonary tuberculosis is not the usual surgery. It is not the performance of an operation, producing a cure and healing but the healing of the wound and convalescence. It is only an "adjunct to medical treatment, aimed to overcome those obstacles which are causing sanatorium treatment alone to fail, and designed to re-adjust the anatomical, physiological and pathological intra-thoracic balance, so that sanatorium treatment can play its part without an overwhelming antagonistic handicap."

The objects of surgery are to rest the lung, to remove the tension and strain of pathological fibrous tissue formation, to abolish abnormal cavities whether in the lung parenchyma or in the pleural cavities and finally to prevent haemorrhages. All these are obtained by one means only and that is by collapse of the lung, and surgery resolves itself into the manner of procuring this collapse, in some cases of the whole lung and in others mainly local areas.

The first and most important surgical procedure is the production of artificial pneumothorax. Normally there is a negative pressure in the pleural sac. If this sac is thorefore filled with air until intra and extra pleural pressures are both at atmospheric pressure, the normal lung will collapse by virtue of its elasticity. This is

arrived at when artificial pneumothorax is done for disease. When a complete collapse is possible, this is one of the best methods for treating cases of pulmonary tuberculosis. But its realisation, however, often fails. One reason for failure is that a lung extensively fibrosed or with thick-walled cavities, or containing areas of consolidation is incapable of such complete collapse. An excessively mobile mediastinum may also cause a failure. The presence of adhesions between the two layers of the pleural membranes is also a frequent and serious difficulty. There are also contra-indications to the production of artificial pneumothorax. Failing heart, nephritis and extensive tuberculous enteritis are the chief ones. If in the opposite lung there is only a slight root involvement, or a localised lesion of a lobe it is justifiable to attempt a complete pneumothorax on the more affected side. But if in the other lung more extensive disease than what has just been indicated is present it is wiser to aim at a "partial" or "selective" collapse. Sometimes a 'Bilateral collapse' is also attempted but in this case great care is required to control the total collapse so that too great a strain is not placed on the heart. The production of an artificial pneumothorax is not unattended with dangers. Excessive mediastinal displacement and of hernia of the pleura, tearing open of thin walled cavities when partially held out by adhesiones, pleural effusions and the difficulties of dealing with the lung that refuses to stay collapsed are some of the problems to be faced by the surgeon. Of these the presence of adhesions is considered to be the most important. Apart from preventing the proper collapse of a lung these adhesions contain blood vessels. The presence of these blood vessels may result in serious haemorrhages when these adhesions are removed or divided. The use of diathermy in the removal of adhesions has however considerably diminished the risk of haemorrhage. Pleural effusions are however the commonest complications. It may be transient, being rapidly absorbed and in such cases it is beneficial as it may lead to a less rapid absorption of the gas; the effusion may however tend to become chronic when trouble will arise. It may be clear at first but after repeated aspirations it becomes richer in cells and fibrin and consequently difficult to aspirate. It may cause increase of intrapleural pressure and do harm. On the other hand it may also cause lung to become adherent and to re-expand. The one great danger, however, is that of secondary infection. An effusion that causes signs of distress must be aspriated and replaced with air if however the liquid contains tubercle bacilli it should be sterilised at first and later on replaced with olive oil and gomenol; if however the effusion is persistent the only method indicated is thorocaplasty.

Oleothorax is also practised though not as an alternative to pneumothorax. The oil used is olive oil or paraffin to which is added. 5 to 15 percent of oil of gomenol, which last has a disinfectant action and also produces changes in pleural membrane, making them rigid and impermeable and thus having a compressing action on the lung. Oleo-thorax is therefore done in all cases of Pyo-or-Pyo-pneumothorax, whether occurring as a complication of artificial pneumothorax or from other causes, in cases of pyopneumothorax complicated by bronchial fistula, in cases of pyopneumothorax with herinia of pleura and in those cases of artificial pneumothorax where frequent refills of air are required. The only precaution to be observed is that an extensive oleothorax must never be done in a virgin pleural cavity on account of the very severe reactions that may result.

Phrenic evultion is also done. Originally this consisted in simple section of the phrenic nerve. But this was a failure because of the presence of an accessory phrenic nerve arising from the brachial plexus or from the nerve to the subclavius and sometimes jointly with the suprascapular nerve and which joins the true phrenic in some part of its intrathoracic course. So nowadays the phrenic nerve is exposed as it crosses the scalenus anterior muscle and divided and the distal end is drawn out together with the terminal filaments detached from the diaphragm. The result is hemi-diaphragmatic paralysis and this results in reduction in size of the hemithorax and consequently in a partial collapse of the lung. This treatment is therfore done for all cases of basal tuberculosis as an accessary to artificial pneumothorax when the base is held out by adhesions and as a preliminary to thoracoplasty. The abolition of the tonic contractions of the diaphragm and the consequent relaxation of the strain on adjacent structures make this very useful in relieving the constant purposeless cough characteristic of diaphragmatic irritation, and also in removing the tachycardia and dyspnoea produced by the displacement of the heart and mediastinum by chronic fibroid contraction. Extrapleural pnelmolysis is usually done over the apex. The pleura is usually stripped away from the deep surface of the chest wall. The lung in part retracts or is pushed by the operator and a space is left between the outer surface of parietal pleura and the chest wall. As the air in the space would soon be absorbed with consequent re-expansion of the lung it is usual and necessary, to fill the cavity with either paraffin, transplanted fat, packing of gauze, rubber strips, and grafts such as the pectoral muscles in men and the breasts in women. These however are removed later and the cavity is allowed to be closed by granulation tissue. This operation is chiefly done in cases with apical

lesions with or without cavities. It is also done after Thoracoplasty to supplement the collapse obtained by that operation.

Thoracoplasty is another surgical procedure which has a value in the treatment of pulmonary tuberculosis. Its object is to obtain collapse of the lung by mobilising the ribs so that they may fall in towards the spine and mediastinum and so diminish the corresponding side of the chest. So lengths of ribs, varying from 2·5 cm. to 12 or 15 cm. are resected from the posterior ends right up to the transverse processes. This operation is indicated in those cases which are not responding to sanatoriun treatment or in which hæmorrhage is a serious and recurring symptom and in which an artificial pneumothorax has failed. In long standing cases of intense fibrosis with multiple cavitation and sacculation of the bronchi, this operation is preferable to artificial pneumothorax. But it is very essential that the other lung must be a healthy lung. The results of a successful operation are however very gratifying as the collapse is permanent and not a continually varying one as in artificial pneumothorax. The resulting deformity is small and there is no question of recurring attendance for treatment by refils nor the risk of pleural complications.

These operative measures described here show that surgery has a real value in the treatment of pulmonary tuberculosis and emphasise the necessity of surgical facilities in every sanatorium.

Gleanings from Medical Press

SURGERY

Diphtherial vulvo-vaginitis.—A. Stammer (*Zeit. f. Kinderheilk.* August 23rd, 1930, p. 132), who records an illustrative case, states that diphtherial vulvo-vaginitis is a relatively rare condition, being found chiefly in children who are already suffering from nasal or faucial diphtheria. As a rule, the patients are either neglected and dirty individuals, or their resistance has been weakned by measles, chicken-pox, or typhoid, and they have become secondarily infected with diphtheria. In rare cases diphtherial vulvovaginitis is a primary condition, the infection being conveyed from diphtheria patients to healthy persons by the hands. The prognosis is almost always favourable, and it is only when the ulceration is extensive that septicaemia is likely to arise. Stammer's patient

was a girl, aged 8 years, suffering from threadworms; she was admitted to hospital with inflammatory oedema of the labia minora, the inner surface of which was covered with whitish-yellow deposit. There was a haemorrhagic discharge from the vagina, which was also covered with thick pseudo-membranous deposit. Micturition was very painful. Numerous diphtheria bacilli were found in smears and cultures. Recovery followed the injection of 6,000 units of antitoxin, the use of sitz-baths containing a bright red solution of potassium permanganate, and the application of 5 per cent. precipitate ointment to the labia.

Ureteroperitoneal Fistula, with Urinary Ascites and Chronic Peritonitis:—Guy L. Hunner and Houston S. Everett, Baltimore (*Journal A. M. A.*, Aug. 2, 1930), report a case of a nutliparous coloured woman, aged 34, who entered the clinic because of pelvic discomfort chiefly on the left side, menorrhagia during the two previous monthly periods and moderate leukorrhea. Clinical and operative examination revealed multiple uterine fibroids and chronic pelvic inflammatory disease as the evident cause of the patient's complaints. There had been no symptoms referable to the urinary tract, but subsequent events showed that the patient had probably had bilateral ureteral stricture previous to admission of long duration which had given rise to the gastrointestinal symptoms. An operative injury to the right ureter was apparently due to the passage of the needle and a catgut suture through the lateral wall of the ureter in the act of tying off the right ovarian vessels near the pelvic brim. This suture gradually sloughed through the ureteral wall and resulted in urinary leakage, which on the eleventh day found its way extraperitoneally to and out through the cervical stump, giving rise to incontinence which was interpreted as being of urethral origin. At the same time there was probably some leakage directly from the ureteral fistula into the peritoneal cavity, as indicated by the high temperature and general symptoms. About seven weeks after the operation and three weeks after the patient's discharge, the ureteral–extraperitoneal-cervical fistula ceased functioning, and urine was shunted into the peritoneal cavity, as evidenced by cessation of the incontinence for one day and the development for several days of all the signs and symptoms of a severe peritonitis. About three weeks later the cervical urinary drainage ceased permanently and the abdominal symptoms returned, and when the patient presented herself a week later she had the marked abdominal distention for which the authors subsequently operated. At a repair operation three months after the primary operation they found the fistula near the pelvic brim, in-

volving the outer wall of the slightly dilated ureter and on attemp- ting to pass dilators from the fistulous opening to the bladder they were surprised to encounter a dense annular stricture about 15 mm. below the traumatic fistulous opening. Had this stricture not been present with urinary stasis and tension above it, it is quite possible that the ureteral lumen would have coninued to drain with suffi- cient volume to allow the natural forces of repair to take care of the later ureteral injury without the formation of a fistula. Ex- perience has shown that ureteral stricture is practically always bilateral and it was this knowledge that later, during the patient's convalescence, led them to investigate the left ureter. The disco- very of bilateral stricture placed them in a position to hasten not a little the patient's recovery to complete health, including the cess- ation of previous annoying digestive disturbances.—*Northwest Medicine.*

Diagnosis of Neuro-Syphilis:—G. R. Lafora is convinced that in most cases of locomotor ataxia careful enquiries will furnish a history of premonitory symptoms. He deplored the fact of so much priceless time being lost by the mistaking of the special gastric symptoms for those of dyspepsia, or in the confusion of the ano- malous symptoms in the lower limbs with the pains and tender- ness of rheumatism. Lafora reminds us that even in an advanced case of tabes the cerebro-spinal fluid may apparently be healthy, the reflexes normal, and a Wasserman test negative, and he com- ments on the curious fact of his having met with such chiefly in patients who were medical men. His explanation of the cause of delayed symptoms where at most, only one or two signs are present, is that the morbid process may be confined to a single spinal nerve-root. (*Vienna: Wiener Klinische Wochenschrift*, XXXVII.)—*Medical World.*

Treatment of Infantile Eczema:—Harry D. Grossman, M.D., Chicago (Arch. of Ped., August, 1930, Vol. XLVII, No 8). The treatment of infantile eczema is entirely empirical today, despite the large amount of work which has been done attempting to show that this skin disease is due to the various factors in the diet of infants, such as proteins, fats, carbohydrates, and fruit juices.

Except in very rare instances, removal of butter-fat, excess sugars, orange juice and food proteins produces no relief from eit- her the subjective symptoms or the objective findings, unless local treatment is used at the same time.

Infantile eczema responds, usually, very nicely and fairly quickly, to crude coal tar used in a suitable ointment base, so that

it seems rather sorrowful that it is not used more extensively by the medical practitioner generally, and the dermatologist specifi- cally.

In severe cases, characterized by marked redness with much weeping and marked crusting accompanied by severe itching, the author usually starts with the following onintment applied twice daily, morning and night:

Crude coal tar	6.0
Zinc Oxide	...
Powdered starch	4.0
Petrolatum q. s. ad.	30.0

The ointment is removed in the morning with sweet oil or olive oil, and then new ointment is re-applied.

The stage in which the weeping and crusting are absent, and in which the skin is red and rough, may be characterized as of moderate severity, and for this the author reduces the strength of the ointment to ten per cent crude coal tar, using the same base.

The redness and roughness of the skin disappear more slowly than do the weeping and crusting, but usually in 7 to 14 days on this second salve the skin is smooth and may be almost normal in color or a bit pinker than normal. As the skin improves, the strength of the ointment should be again reduced, this time to five, per cent, and applied twice daily seven to ten days even though the skin looks normal.

Any tendency to recurrence of the eczema is countered by an application of the five per cent ointment.—*Minnesota Medicine.*

Treatment of Furunculosis—The article by M. G. Leo on "How to treat a Common Boil" is descriptive of a series of measures which, according to the author, makes it possible to obtain immediate results in ordinary cases of furunculosis of average severity. This claim may be regarded as one more instance of the advance of modern therapeutics; nevertheless, it seems to be lacking in one important particular, namely, by making no reference to the systemic source of the disease. Thus does a dermatologist of note deal with this aspect of the subject: „When furunculi occur simultaneously on different parts of the body, and reappear frequently, the disease is termed furunculosis, and the source of the affection is due to general malnutrition." Its systemic origin is also confirmed by its occurrence in diabetes. These remarks, however, are "only by the way," and with interest the reader will learn from the article some progressive views on the subject to which the author has drawn attention as the outcome of his original work; it is not to be denied that his results are

entitled to the definition of being attractive, although the method he has elaborated involves the practice of a highly specialized local technique. The full details of this will be found in the article, and doubtless command commendation owing to the novelty of the treatment suggested.—*Franco British Medical Review.*

Toxic Reactions Produced by the Application of Trinitrophenol (Picric Acid).—One of the widely used applications in burns and various infectious skin conditions is picric acid in solutions or ointments. It is often used in industrial surgery and for sterilizing the skin preliminary to surgical procedures. Recently it was reinforced by butyn for anæsthetic purposes and introduced as butesin picrate. Considering that picric acid is a derivative of phenol, the possibility of toxic effect is not surprising. The combination with butyn renders the untoward effect more likely. The writer, having an aversion and prejudice against phenol and its derivatives, never uses it nor picric acid. From time to time dermatologists see cases of local dermatitis from picric acid, but no systematic study of this subject has been reported so far.

We note, therefore, with great interest, the publication of a clinical and experimental study, by Dennie and McBride of Kansas City on the potential toxic effects of picric acid applications.

The authors have made a series of skin sensitization tests to picric acid on one hundred students. On one arm an area of two centimeters square was painted with five per cent alcoholic solution of trinotrophenol; on the other arm, a similar area was painted with five per cent aqueous solution of tannic acid. There were no reactions to the tannic acid, but four per cent of the patients showed positive reactions to the trinitrophenol, two reactions being severe and extending far beyond the area of application.

They concluded that dermatitis occuring at a distance from the area from application was produced by a protein picrinate which was carried by the blood stream or lymphatics to these areas where it was split up into its component parts, and the trinitrophenol radical or some of its modifications reunited with epithelial cells.

The animal expriments undertaken to check up this hypothesis yielded a confirmatary evidence. Experimental subcutaneous injections in dogs have shown also that the lethal dose of trinitrophenol is between 0.1 and 0.125 gram per kilogram of body weight, and the subcutaneous fat, even at points removed from the area of injection, is stained yellow. The lungs are often stained yellow. The dog's skin does not have nearly the same ratio of absorption as the skin of a human being, since it has no sweat glands. Fifty cubic centimeters of a five per cent alcoholic solution of trinitrophenol was applied to the intact skin of the dog. The blood showed a positive reaction for trinitrophenol after twenty-four hours. Tests for trinitraphenol in blood of human beings who have received applications of trinitrophenol would be positive. They consider the application of a solution of trinitrophenol to burned or abraded skin dangerous even for nonsensitive persons, since deaths have been reported from its application.

In conclusion, Dennie and McBride advised against the use of trinitrophenol to sterilize the field of operation and recommended the substitution of tannine acid in proprietary ointment cases.—*California Western Medicine.*

OPHTHALMOLOGY,

The Treatment of Ocular Tuberculosis with Tuberculin. Gay, L. N. *Arch. of Ophth.*, 259, March 1930.

An extensive article is summarized as follows:—

1. Thirty patients with ocular tuberculosis, choroiditis, chorio-retinitis, uveitis scleritis, iritis, and intra-ocular hæmorrhages, were treated with tuberculin of Denys.

2. Tuberculin may be used intradermally as a diagnostic method, and subcutaneously as a safe method of treatment.

3. The use of minute doses of old tuberculin (0.001 mg.) in the diagnosis of the disease is more accurate and is safer than the use of larger doses (from 1 to 5 mg.)

4. The treatment consists of subcutaneous injections of bouillon filtre, beginning with 0.000001 mg., gradually, over a period of months, reaching a maximum dose of 100 mg. The maximum dose should then be repeated at weekly intervals for at least three months.

5. The use of a bacillus emulsion leads to inaccuracy because of the infinitely small dilutions which are used in this treatment (1 : 100,000,000).

6. Constant observation of the eyes is of the greatest importance. A focal reaction should be avoided; if it occurs, the subsequent dose should be reduced to a level of safety.

7. The thirty patients presented here are a selected group who had been treated unsuccessfully by other ophthalmologists before they were admitted to the Wilmer Clinic. In this clinic no abnormality was found, other than tuberculin hypersensitivity.

to account for the disease. The result of treatment has been restoration of the impaired vision, with the arrest of a disease which ultimately would have blinded the patient.

8. In the author's opinion, tuberculin does not produce healing by a non-specific reaction; the healing is due possibly to an immunological desensitization of diseased tissue.

9. In order that patients with ocular tuberculosis may be properly treated, ophthalmologists must appreciate the wide difference between immunological antigens and chemical reagents.

10. The use of tuberculin should never be considered in the treatment of a patient with a diseased eye unless all foci of infection have been removed. It should be used if after a lapse of from three to six months the removal of infection fails to bring about improvement.

Retinitis in Diabetic Patients.—Cammidge, P. J., *Arch of Ophth* 3: 248, Feb. 1930.

This paper, given before the Royal Society of Medicine, is founded on the last thousand of the author's cases of diabetes mellitus. Of those 48 patients, or 4·8 per cent, suffered from retinitis and retinal hæmorrhages as a complication. The percentage in Joslin's cases in America was 5.2 per cent, but van Noorden gave 17. The writer thought that this difference was due to the particular form of diabetes seen in the various countries. It should be remembered that the cardinal symptom of diabetes, *i.e.* glycosuria, might arise from a variety of causes. It could be divided into two main varieties: (1) the "anapothetic" or alimentary, in which there was difficulty in the storage of carbohydrates; and (2) the "achriatic," in which there was a deficiency utilization as well as defective storage. As a rule the former was found in elderly persons and the latter before middle age. Retinitis was generally associated with the first of these forms. In 40 per cent of the cases of retinitis, there was a history of diabetes in immediate relatives. It was now regarded as dobutful whether a retinitis due to diabetes alone ever occurred; moreover, there was not that relation between the severity of the diabetes and the incidence of the retinitis which would be expected if the retinitis was the direct result of the metabolic disturbances consequent on the primary disease. In these patients there was a calcium deficiency in the blood, and the resulting diminished coagulation of the blood was one of the factors in the production of those locally recurring hæmorrages which were of such grave prognostic significance. Many patients improved rapidly in vision, when the hyperglyæ nia and glycosuria

were controlled by treatment. The œdema was probably the result of alterations in the osmotic pressure in the tissues, caused by the presence of an excess of sugar in the blood. An accurate differentiation of the various types could be made only by chemical analysis of the blood under test conditions that enabled one to estimate the functional efficiency of the kidneys.

In giving insulin it was important to commence with small doses, *i. e.*, one should avoid a sudden reduction of the blood sugar. The author had found that five grains of calcium lactate daily sufficed to maintain the percentage of calcium in the blood within the normal range and prevent hæmorrhages. Dr. Cammidge had been experimenting with both parathyroid and vitamin D, but his experience with them was not sufficient to enable conclusions to be drawn. Finally, he said that the administration of lime salts by mouth in sufficient quantity to maintain the percentage of calcium in the blood at the normal level prevented local hæmorrhages in diabetes retinitis.—*C. M. A. J.*

Recurrent Haemorrhages into the Retina and Vitreous—Calcium deficieney as a possible cause: Charles A Young. (Trans. of Amer. Acad. of Ophthal & Otolaryng., 1929, p. 191). In one of the three cases reported, low blood calcium seems to be definitely the cause of recurrent hemorrhages. This patient had eight hemorrhages in the past three and a half years. Blood calcium was 6.5 mg. per 100 c.c. The following treatment was instituted for a period of three weeks out of every three months:

Gluco-Calx 5 c.c. intravenously twice a week.

Parathyrin 1 c.c. intra-muscularly twice a week.

Thyro-Calx tablets, 1 t.i.d.

There were no hemorrhages for the next two years.

The early hemorrhages seem to clear up rapidly, but in cases of repeated hemorrhages the vision is usually lost as a result of proliferating retinitis and detachment of the retina.

There seems to be many causes for repeated retinal hemorrhages and it might well be that two or more factors are present, but calcium deficiency should always be considered as a possible cause—*Minnasotra Medicine.*

MEDICINE.

Prevention of Hypostatic Pneumonia.—C. I. Bastrup (*Ugeskrift for Laeger*, August 14th, 1930, p. 782) draws attention to the risk of hypostatic pneumonia when an elderly patient is confined to bed. The alternative of making the pationt sit up in bed has the disadvantages of causing fatigue and giving rise to stiffness about the hips; further, this device does not greatly raise the level of the lower part of the thorax. Baastrup insists that his patient

shall lie half an hour during the morning, midday, and evening on the right side, and half an hour on the left. He remarks that although numerous practitioners doubtless avail themselves of this or a similar device, the text-books consulted have been practically silent on the point. While it is natural to suppose that simply for mechanical reasons, expectoration coming from the right lung escapes by the right bronchus most easily when the patient lies on his left side, and vice versa, this is not the most important factor which comes into play. When the patient lies on the right side an x-ray examination shows outer edge of the apex of the heart to be 7 cm. from the outer limits of the left thorax, whereas this distance is reduced to 4.5 cm. when the prtient lies on his left side. When the patient lies on the right side the vault of the left side of the diaphragm is 3.5 cm. lower thah when he lies on his left side. Lying on his right side, the patient displaces the vault of the right side of his diaphragm 4 cm. higher than when he lies on his left side. It will thus be seen that by the simple device, of changing from one side to the other very considerable movements of the intrathoracic organs are effected. Measurements of the dimensions of the lungs in the two postures, right-and left-sided decubitus, showed, by the help of x-rays and paper mapped out in square centimetres, that when a patient reclined on the right side the area of the left lung in view was 213 square cm., whereas this figure was reduced to 155 when the patient lay on the left side. Similarly, the surface area of the right lung visible to the x-rays with the patient on his right side was 190 square cm., whereas when he lay on the left side this figure was increased to 236. Another advantage of making the patient lie by turns on the right and the left side is the diminished risk of bed-sores.

Early Diagnosis of Whooping-cough.—ACCORDING to L. W. SAUER and LEONORA HAMBRECHT (*Journal American Medical Association.*, July 26th, 1930 p. 263), the coughplate method introduced in 1916 by Chievitz and Meyer is the best way of obtaining an early diagnosis in whooping cough. A plate containing a medium of potato-blood-organ is held three or four inches from the mouth, and the patient gives several deep expulsive coughs; the plate is incubated in an inverted position within a few hours after exposure. Examination for colonies of B. *pertussis* should be made at the end of the second day; if they are very numerous they appear as minute, glistening, mercury-like droplets amid the larger saprophytic colonies. If the colonies are few, they may not be recognized until the fourth or even the fifth day. On staining by Gram's method or by toluidine blue the organisms are seen as small delicately staining ovoid bacilli, some of which show bipolar staining. Although the course of the whooping-cough is little influenced by early diagnosis, the patient and any susceptible children exposed to infection can be quarantined before they infect others.—*B. M. J.*

When writing to advertisers, please mention "The Antiseptic."

Book Reviews

A System of Clinical Medicine.--By Thomas Dixon Saville, M.D., 1930. 8th edition, 1019 pages, illustrated. Price sh. 28 net. [Edward Arnold & Co. London.]

This standard text-book of clinical medicine needs no introduction from us. Practically every medical man, in our parts at any rate, uses it as the standard reference work for all clinical purposes. Its great usefulness lies in its approaching diseases from the standpoint of symptomatology. In this important respect it differs from the usual text books of medicine.

In this, the eighth edition, nearly every part of the book has been carefully revised. Amongst the completely new matter may be mentioned:—Coronary thrombosis, Quinidine treatment, Insulin coma, Nephrosis, Uroselectan in Pyleography, Liver therapy, Tularaemia, Amoebiasis, Malarial treatment of G. P. I., Schilders disease, Narcolepsy, Pyknolepsy, Abortus fever, Heat cramp, the Parkinson syndrome, the methods of Localisation of the cerebral and spinalian tumors, Thallium acetate treatment and some rare skin diseases. The chapter on diseases of the lungs has been reviwed by Dr. Reginald Hilton ; that on fevers by J. D. Rolleston; that on diseases of women by Prof. Louise McIbroy ; that on the eye by Fleming; that on Tropical diseases by Col Byam; that on nervous system by Dr. Harvy campbell and that on the stomach by Dr. Patterson.

The high reputation which this book has earned in the past is maintained in its latest edition, the eighth. We cordially recommend the book to students and practitioners.—*U. K. R.*

Clinical Methods in Tropical Medicine.—By G. T. Birdwood, M.A., M.D., D.P.H. Lt. Col. I.M.S. 1930, 4th Edition 366 pp. Price Rs. 8-8. [Thacker Spink & Co., Calcutta.].

This little handbook of Clinical methods is a mine of information. In its pages much valuable information is contained regarding the various diseases and the numerous tests and examinations which the common general practitioner will be called upon to diagnose and do practically everyday. Some of these, strictly speakings are not clinical methods but they are

points which will be of real practical value to students and practitioners in this country. Some of the sections are written by men who are recognised as authorities in India. In this new edition several sections have also been added on the value of vitamins, the essentials of a good diet, on renal efficiency tests, urea-concentration, the Schick test, Spahlinger's treatment &c. Special mention can however be made of the sections on Malarial fever and Mosquitoes written by Col. S. R. Chrstophers, of the section on examination of the fœces written by General Megaw, of the section on Preservation of Pathalogical material by Dr. H. B. Newhans of the London School of Tropical medicine, and of the sections on Plague, Microscopes, Tuberculosis, leprosy, Syphilis Cholera, Hookworn and snakes.—*U. K. R.*

Medicinal Drugs of India.—By Kaviraj Balwant Singh Mohan, Vaidya Wachaspati (Pb.) A. M. A. C. (Mad) Research Scholar, Lahore, I Edn. 256 Pages, 1930, Price Rs. 2.

This book presents a few reliable and simple account of the Indigenous medicinal herbs and drugs, which abound in India in all climates. It suggests medicinal significance over those of the foreign imported phramaceutical preparations. Though the book is not exhaustive on the subjec yet it is an aid in the study of Indian medicinal plants The drugs are arranged according to their Sanskrit (Vernacula rised) name followed by one or two synonyms of the India Vernaculars for identification. In the end some useful prescriptions have been inserted. Appendix A contains some research of Indigenous plants in India. Appendix B treats on Ayurvedic system of medicine. We recommend this useful book to the students of Indiginous system of medicine.—*U. R.*

Jacobi's Atlas of Dermochromes.—By Henry Maccormac, C. B. E., M, D., F. R. C. P. Physician for diseases of the skin, Middlesex Hospital etc., etc., in two Volumes with 322 coloured illustrations and 2 half-tone figures on 169 plates. IV Edition. 186 Pages Price of each Volume £5—5. 1927. *William Heinemann (medical books) Ltd., 20 Bedford St, London W. C*$_2$.

This useful, instructive and exhaustive work on skin diseases, contains beautiful, clear and magnificent plates illustrating the common diseases of the skin and Venereal affections, which the general practitioner has often opportunities of observing in his daily practice, beautifully reproduced in natural tints by a four-

coloured process. Each plate is accompanied by a page or more of explanatory text containing practical points in Etiology Diagnosis, Prognosis, and Treatment. The plates on venereal diseases is of special value and very instructive. In India such varieties of skin diseases are not commonly seen owing to the climatic conditions and the habits of the Indians. Still the knowledge of various skin diseases is absolutely necessary for every general practitioner in India. Skin diseases are not taught in Indian medical colleges and schools, as a special subject, though a beginning has been made in Madras. Under the circumstances, we recomend the book to every general practitioner and students. This work must find a place in every medical liabrary in India, especially in every medical Institution. We congratulate the author on the production of such an useful work.—*U. R.*

Those teeth of yours.—By J. Menzies Campbell, L.D.S., D.D.S., F. R. S. E., 17 illustrations, 141 pages, 3/6 net. William Heinemann (medical works) Ltd. London 99 Great Russel Street London W.C.

This book is a popular guide to better teeth. The author deals with the subject in a popular style, avoiding as many technical words as possible. The subject is dealt with under the following few headings among others. The ways and wherefores of the *dental caries*; *Pyorrhoea alveolaris* and what it is ? Cause and treatment; extraction of teeth and insertion of artificial dentures ; children's teeth; teeth in relation to health etc. The illustrations are clear and very useful. We recomend the book to our readers— *U.R.*

Diseases of the Nose Throat and Ear.—By A. Logan Turner M. D., L. L. D., F. R. C. S. E., Consulting Surgeon, Ear and Throat Dept., Royal Infirmary, Edinburgh Second Edition. Revised and enlarged with 234 illustrations and 12 plates—440 pages. The Price is 20/ net. John Wright & Sons Ltd., Bristol.

The first edition, based on the III Edition of " Porters ' Throat, Nose and Ear" was published in 1924. A reprint in 1925 and now, in this edition the work has been completely revised. This useful book which is intended for practitioners and students contains plenty of useful informations. The book is divided into a number of sections viz. *Diseases of the Nose*, *The Pharynx* and *Nasopharynx.*, *The Lyrynx.*, *Peroral Endoscopy*. Each section has been carefully revised and a certain amount of new matter added. In the section on diseases of the ear, the chapters descriptive of *Otosclerosis*, the *interncranial complications* of *suppurative otitis media and the Labyrinth* and *Eighth Nerve* have been recast and re-written. The large number of a neatly printed illustrations are very valuable

and enhance considerably the value of the book. The book contains a fund of information. The subjects are very well dealt with. No general practitioner should be contended with his library without this book. We recommend this book to practitioners and students.—*U.R.*

An Introduction to the study of the Nervous System.—By E. E. Hewer, D. S. C. and G. S. M. Sandes M. B. B. S. M. R. C. S. L.R.C.P. 1929, 104 pages, illustrated. (William Heinemann. (Medical books) Ltd., London.

For a proper understanding of the functions of the human body it is necessary to have a clear knowledge of its structure. In no system of the body is this more essential than in the central nervous system, where in the midst of the interactions based upon an intricate series of relations and connections, the student, graduate or practitioner finds himself all at sea. In this book the text and the very instructive diagrams are the outcome of teaching, chemical and laboratory experience which has enabled the author to weigh and value the various contributions to the study of the nerous system and present them in a form which will be highly appreciated by students and other workers.

The book is divided into two parts. Part I deals with the nerve-cells and nerve fibres with the spinal cords and its descending and ascending tracts, with the cerebrallar connections and also with the connections of cranial nerves and basal ganglia. The cerebro-spinal fluid and the autonomic nervous system are also described. Part II describes the normal physiology of the sensory and motor paths and the result of interference with the sensory and motor paths at various levels and also the result of interfenence of paths from visual centre, and cochlea, and olefactory paths. The mechanism of co-ordinated muscular movement and Reflex action are also fully described.

We recommend the book to all senior students and to general practitioners interested in neruology.—*U.K.R.*

Partnerships, Combinations and Antagonism in Disease.—By Edward C. B. Iboston, M. D. (Lond) B. S. Fellow of the Royal Society of Medicine, London. 1929. P. p. 348. Price $3·50, Philadelphia. F. A. Davis & Co.

With the advancement of physics, biochemistry and biology the old and rather inaccurate conceptions as to diathesis, infection, and immunity have been thoroughly changed, and the author describes and discusses these in the light of modern researches in this book.

It is well-known to everybody that an attack of disease either makes a patient more exposed to another disease or increases his resistance to it. That there is a tendency or diathesis towards disease has been proved beyond doubt; and these are mostly explained as faults or abnormalities in the blood chemistry, most of them being hereditary or familial.

That there is an association of diseases in one patient may be explained by the fact, that patients suffering from, say influenza, harbour several other micro organisms as evidenced by cultural examination and other serological examinations. Therefore it is not quite out of the way to find one disease associated with or followed by another. To cite a striking example, Tubercolosis, after some other pulmonary affection, such as whooping cough, Broncho pneumonia or influenza as a sequalae of these diseases. A very good example of antogonism in disease will be seen between malaria and nervous syphilis, Tabes etc. The treatment of G.P. by malarial inoculation has been found on this principle that the causative organism of malaria and their toxins have a deleterious effect on the spirochaeta lodged in the protoplasam of nerve trunks.

The inter relations of various organs of the body and the endocrine glands are discussed fully in Health and Disese. It is an admirable volume for all those interested in the study of this subject.—*V.C.S,*

The Modern Treatment series: 1. Modern treatment of diseases of the Throat, Nose & Ear.—By H. Lawson, Whale, M. D., F. R. C. S. Jonathan Cape, 30, Bedford Square London. Can be of Messrs. Butterworth & Co., (India) Calcutta. Price Rs. 3-12.

In this remarkable little book Doctor Lawson Whale gives a lucid and vivacious survey of modern practice in respect of the treatment of the affections of the Ear, Nose & Throat. He places before the reader an account of the various methods, operations and procedures advocated or practised in England and abroad. He does not hesitate to state candidly his judgments and to avow his inclinations. Those who read Mr. Whale's pages may be sure that they will miss very little that is modern and will have the extra pleasure of knowing that praise will be given only where it is deseved.

Modern Treatment Series: Liver in the treatment of Pernicious and other Anaemias.—By S. C. Dyke, D. M. (oxn), M. R. C. P. (Lond) 1930. P.p. 128. London. Jonathan Cape, 30, Bedford Square. Copies can be had from Messers. Butterworth & Co., (India) Ltd., P.O. 251 6, Hastings Street Calcutta. Price Rs. 3/12 net.

This little book contains all the available information regarding the latest developments in the treatment of Pernicious anaemia.

The pathology and Diagnosis of pernicious anaemia are well described and discussed in the light of the results of the researches to the last few years.

The treatment of pernicious anaemia with liver has been very well described after giving a brief history of the discovery of the amazing therapeutic potency of liver. Many of the practical aspects of the 'liver treatment' have been fully explained.

Treatment of secondary and other diseases of the blood with liver is also described.

This is an extremely useful book both to the general physician and to the practitioner.

The Physiological Principles of Hydrology.—By R. G. Gordon, M.D., D.Sc., F.R.C.P., Ed., and F. G. Thomson, M.A., M.D., F.R.C.P., 1930, Pp. 131. Jonathan Cape, 30, Bedford Sq., London. Can be had of Messrs. Buttterworth & Co., (India) Calcutta. Price Rs. 3-12.

This volume presents in a concise, yet clear, form the physiological principles necessary to be observed for the proper and safe administration of this branch of speciality in the treatment of diseases. In the first chapter a brief historical introduction on hydrology is given.

The physiological action on the Normal Skin, Nervous system, circulation, metabolism of the various natural baths and hydrological procedures are given in the first part.

The second part explains the usefulness of these procedures in certain selected diseases which will be found helpful by all the practitioners. The authors have given a rational and balanced survey which must be of material assistance to the general and special practitioners who wish to ensure to their patients the best advantage that may accrue from the just use of "healing waters."

The Surgical treatment of Pulmonary Tuberculosis.—By Bernard Hudson, M.D., M.R.C.P., 1930, Pp. 128. Jonathan Cape, 30, Bedford Sq. London. Copies can be had of Messrs. Butterworth & Co., (India) Calcutta, Price Rs. 3-12.

The theme of this book seems to be a survey of the general principles and progress of modern surgical treatment of pulmonary tuberculosis, in a useful form to the physician.

It deals exhaustively with the artificial pneumothorax and with the thorocoplasty, while some of the other methods as oleothorax, phrenic avulsion, etc. have been given due attention.

Though not a detailed book for the specialist, the general practitioner will find it more helpful.

Infant Feeding.—By Bernard Myers, C.M.G., M.D., M.R.C.P. 1930, Pp. 160.

All the latest methods of infant feeding have been included in this book. The usual difficulties that often confront us in the feeding of an infant with disgestive disturbance are clearly set forth. The methods and measures advocated in this volume with

regard to infant feeding are those which have yielded the best results to the author in an experience of 677 babies, in the Babies Hospital Alexandra Road, and 700 at the children's clinic and many hundreds at the Rural Waterloo hospital; it is highly practical and up-to-date, we have no hesitation in recommeding this book to all those interested in infant welfare.

Preparations and Inventions

A New Remedy for Diabetes.

Ever since the discovery of Insulin attempts were made to find out a method for the oral use of Insulin in diabetes, but the results were not satisfactory. Recent work, we understand, has shown that the Phosphotungstate of Insulin definitely lowers the blood sugar level in rabbits and also in diabetic patients. Bengal Immunity has issued it by the name of Oralin which is a Phosphotungstate of the active principle of pancreas prepared for oral use in diabetes Mellitus.

Quadranox and Quadronal.

Quadranox is a valuable German preparation, reputed to be a certain cure for insomnia and mental debility, from which the modern generation mostly suffer, in consequence of the competitive race for power, wealth and fame. It is a harmless remedy and is said to bring on sound natural sleep.

Quadronal is another German preparation said to be efficacious for Colds, Neuralgic pains and Headache. This is a compound of four ingredients: Antipyrin, Phenacetin Lactophenin and caffein. It regulates the blood pressure and produces no ill after-effects. Both these preparations can be had of the sole agents, Messrs. C. S. Brothers, Dhal's Street, Ahmedabad, or of Messrs. Srikrishnan Brothers, Post Box. No. 166, Madras.

PROCEEDINGS OF ASSOCIATIONS, SOCIETIES, COUNCILS. &c.

Indian Medical Association.

A meeting of the Cenral Executive Committee of the Indian Medical Association was held on the 26th October 1930, at which Sir Nilratan Sircar presided. Among much business of a routine nature resolutions were recorded regarding the political conviction of Dr. B. C. Roy, President of the Association and of two other

invaluable and active members, Drs. M. A. Ansari and Charu Chandra Banerji. It was decided not to fill the President's place in the meantime.

It will be of interest to learn that Col. Bhola Nath, a Vice-Presient of the Association, has been requested to act in the capacity of General Organizer in opening out branches in various centres of the country, for which purpose a fund to meet the requisite expenditure has been started. Branches at Bareilly, Poona and Patna have already been opened in addition to others elsewhere prior to this and it will be noted that the rules of the Indian Medical Association are being subject to a thorough investigation by a committee, particularly with a view to facilitating the affiliation or amalgamation of sister bodies.

A strong committee was also formed to go into the questionnaire issued by the Indian Durgs Committee and to formulate a reply thereto, while a resolution was passed deploring the omission of a representative of Indian drug manufacturing interests. Having regard to the fact that a representative from a European firm had found a position on the committee, it was felt that much suspicion would be allayed even at this hour if a representative of Indian drug manufacturers was co-opted on the Indian Drugs Committee.

Indian Medical Association, 1-11-30

K. S. RAY.
Jt. Hon. Secretary.

NOTICE

Messrs. Brand & Co., Ltd., London, whose advertisement for Brand's Essence of Chicken appears in the first page of this journal have been Invalid Food Specialists for nearly ninety years and during the whole of that time have held the appointment to supply their products to the Royal Household.

Brand's Essence of Chicken is a marvellous Stomachic without an equal in cases of Gastric Trouble, Fevers, Impaired Digestion, Nervous Prostration and similar diseases and is prescribed by the leading medical men throughout the world.

Their Indian representative Mr. J. P. Cronin, P. O, Box. No. 2229, Calcutta, will at all times be pleased to supply literature and price lists.

ERRATA.

In Vol. XXVII, No. 10, October 1930, issue of the Antiseptic, in Page 738, Diagram (Head of the table) for 'Assistants table' read 'Anaesthelist table.'

In page 741 l. 5 for 'click' read 'and'

In page 742 l. 23, for 'fourth day' read 'third day.'