

The Antiseptic

Vol. XXV
No. 11.

NOVEMBER, 1928.

ANNUAL
SUBSCRIPTION
Rs. 5.

ORIGINAL ARTICLES.

*ON SEASONAL VARIATIONS IN BODY WEIGHT IN PULMONARY TUBERCULOSIS

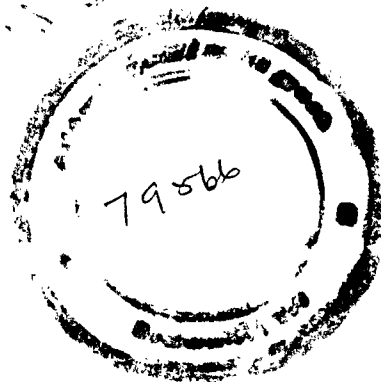
BY

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Gain in weight has been recognized as one of the cardinal points in the prognosis of tuberculosis. Pulmonary tuberculosis being a disease of adolescence, an age when weight will naturally be on the increase in the healthy individual as a result of growth, a slight and steady increase of weight is nothing more than a normal physiological factor. It is with the comparatively rapid gain or loss of weight in the tuberculous individual that we are concerned in this paper.

With the exception of the obese form of tuberculosis in which the increase of weight is perhaps not of so great value in prognosis, an increase of weight is now generally recognized as a sure sign of improvement just as the reverse is known to be a sign of breakdown. In a wasting disease like consumption the natural process of repair as a result of adequate treatment is attended with a marked gain in weight quite out of proportion to the normal growth of the individual and it is not unusual in the clinical records of hospitals for a patient to gain 30% or even more in weight in a few months as a result of rest, nourishment and other favourable conditions. Such phenomenal rises of weight will, in fact, be considered pathological in the normal subject.

*Specially contributed to "The Antiseptic".



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THE ANTISEPTIC
1928

NOVEMBER 25-11

DECEMBER 25-12

JL
Lm 2, No 4
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In calculating the rate of increase of weight in a disease like pulmonary tuberculosis the weight curves of individual cases are of no value. On the one hand, a patient may either have a slight gain of weight or no gain at all though his condition is perceptibly improving. On the other hand, another may show a decided gain in weight whilst the lung condition is progressing towards caseation and breakdown. To eliminate such errors of experiment one has therefore to collect figures from a large number of cases.

Again, the object of this investigation being to understand the effect of the climate and of the seasons on the patient suffering from tuberculosis and progressing under hospital conditions, it is important to eliminate a number of disturbing factors which interfere with a normal weight curve under such conditions. Thus a large number of 'galloping' cases may vitiate the average figures on account of the rapid loss of weight in these hopeless and acute toxic cases. Epidemics of Influenza, dysentery etc., which interfere with the normal weight curve, may also disturb the calculation. A large number of cases simultaneously commencing artificial pneumothorax, sanocrysin or tuberculin treatment may similarly vitiate the figures; as also a large number of convalescing cases beginning graduated labour. For it is now known that there is apt to be an initial fall of weight in these different methods of treatment in spite of general improvement. Again a preponderance of patients in the final stages of convalescence when increase in weight is slight or none at all, will interfere with the rising line in the curve. It is therefore important that to obtain the normal weight curves in tuberculosis, all such disturbing factors should either be eliminated or their influence minimized by a moderating process. In this investigation, therefore, the hopeless and galloping cases have been excluded and the influence of the other disturbing factors has been brought down to a minimum by dealing with monthly figures instead of weekly figures, so that accidental causes that might crowd into one week and disturb the curve might be excluded.

The causes that lead to increase in weight during improvement according to Lunde¹ are (1) the deposition of fat resulting from good feeding, rest and assimilation and (2) the retention of water in the system depending on the temperature and humidity of the air. Lunde considers that in the hottest parts of the summer there is greater evaporation, less of water retention and decreased assimilation due to heat, all these factors

leading to loss of weight. During spring and early summer less heat is lost from the body than in winter with maximum deposition and minimum burning up of fat, and increased food elimination; all these leading to gain in weight. In winter again there is decreased assimilation due to the severe cold, increased loss of heat by radiation from the body with the consequent increase in the combustion of fat and lessened fat deposition; and increased kidney function and discharge of water from the system; all these leading to loss of weight. He corroborates the above hypothesis by producing weight curves from his hospital in Norway showing a slight rise in spring and a higher rise in late summer and autumn, periods of the year when the temperature is neither too high nor too low and the humidity of the air is favourable for water retention, especially in the autumn. For converse reasons there is a fall of weight in mid-summer and winter.

Frimodt-Møller's² observations at Arogyavaram show similarly interesting figures. At Arogyavaram the skies are cloudless and the air is dry and hot from March to May. From May to September the south west winds cool down the atmosphere and bring some moisture with them and from September to November the north-east winds bring rain and moisture and cool down the air still further. The cold months November to February are the most pleasant and cool. Corresponding with these seasonal variations there is a fall of the weight curve in March to May, a slight rise or a level in June to September and a marked rise from October to December and a slight rise or level from January to March. Frimodt-Møller's observations are therefore identical with those of Lunde, the difference in their respective weight curves being due to the difference in the climate.

Strandgaard,³ from an investigation in Danish Sanatoria, whilst laying some stress on the importance of dietary, considers that climatic and seasonal variations have an important bearing on the weight of tuberculous patients. Thus in July there was a loss of weight in the majority of the Danish Sanatoria, with a gain in September and a fall in December. In fact Strandgaard thought that the weight curve closely followed the meteorological factors including sunlight, temperature and rainfall.

From a comparative study of the figures of different countries and sanatoria, Strandgaard pointed out that autumn

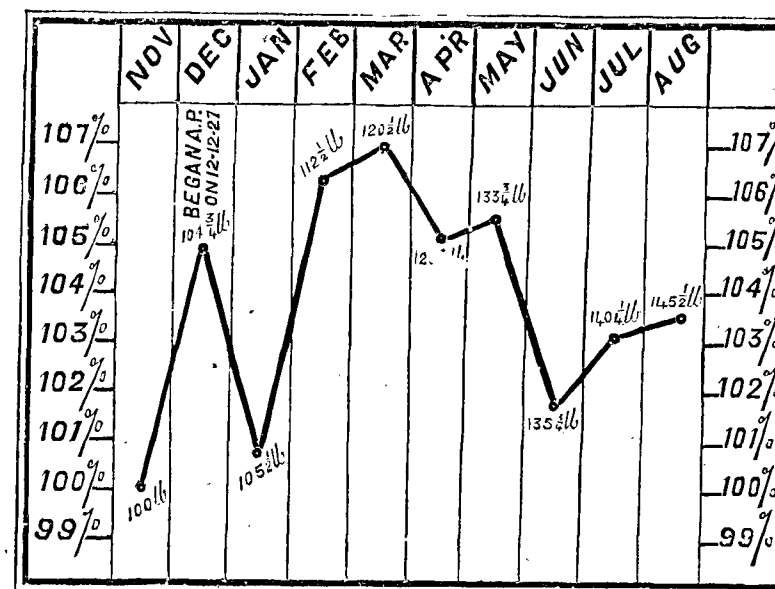
in all countries was the season for increase in weight, being August in Norway, September in most other countries of Europe, October in the United States and November in India and that the gain of weight was usually higher in colder countries than in the tropics. That the weight curve has a direct bearing on the effect of the seasons on the general health seems according to Strandgaard to be proved by the fact that the weight curve closely followed the morbidity and mortality curves of the year in Denmark and other European countries.

The climate of Madras being quite different from that of the other countries mentioned above the weight curve is naturally different in type, though it quite agrees with the principle of the mutual relationship of weight and climate. Madras has a strictly tropical climate and being on the sea coast the absolute humidity of the air does not vary much though the relative humidity naturally varies with the temperature, being less in the hotter months, March to October, and greater in the cooler part of the year viz., October to March, the latter period coinciding with the wet season. The mean temperature of the air from March to October varies between 80° F. to 90° F., maxima of 105° F. to 110° F. being experienced on several days in May, June and July. The mean daily temperature from October to March varies from 74° F. to 80° F. and the total rainfall of about 30 inches for the year occurs during these months. In fact compared to European countries, Madras may be said to have a summer climate all the year round, though the three months November to January are comparatively cool and pleasant. It is clear therefore that though the weight curve rises during the months November to January the variation in the curve of these three months and the rest of the year is not so great as at Arogyavaram or in Europe. The distinct rise of November to January and the dip of April to July are however quite characteristic and significant.

The curves on the accompanying charts are sufficiently explanatory by themselves. The temperature and humidity curves are seen to run inversely, which is natural in the case of a coast town. The weight curve has been represented in percentage of increase in weight and not as actual increase. This is a more accurate method of representing the weight curve for comparative purposes, especially as the average weight increase of the individual in South India is much less than that in Europe. It is interesting to note that the weight and humidity curves run parallel to each other.

A few words of explanation are required in connection with the curves in the charts. In chart 1 which gives the curve of weight of an individual case who was under artificial pneumothorax treatment, there was a steady rise of weight from the day the patient was admitted into the hospital up to the date of writing this paper viz. from 100 lb to 145½ lb. The falls in the curve seen in the months of January and June respectively do not indicate an actual fall of weight but merely a fall in the rate of increase of weight. There was an increase of the weight from 104½ lb. to 105½ lb. and 133½ to 135½ lb. even when the curves showed a dip. It merely implies that the rate of increase of weight was ¼% in January and 1½% in June. In this case the fall in the rate of increase of weight in January was

CHART I



due to the commencement of artificial pneumothorax treatment, for as mentioned already a certain amount of fall in the rate of increase of weight or even in the actual weight may occur when certain methods of treatment like artificial pneumothorax, sanocrysin, tuberculin etc. are begun, which gives place later on to an increase in the rate.

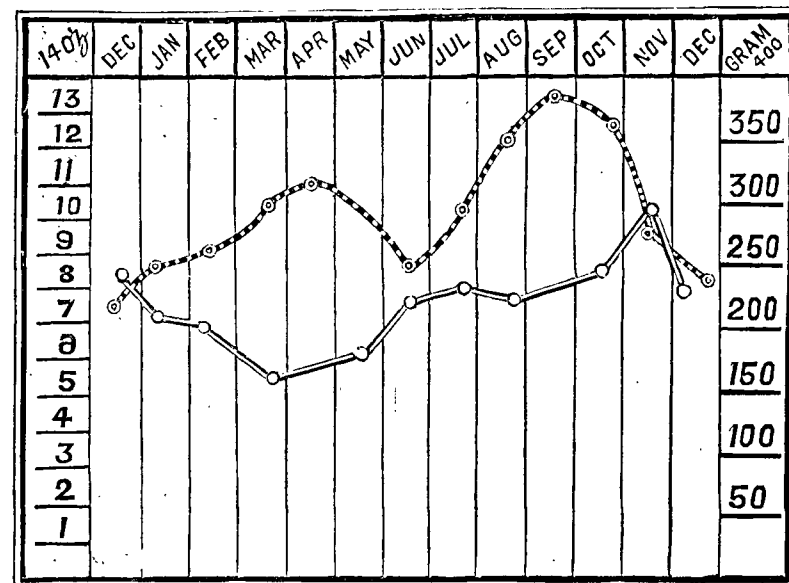
Chart II which gives a relative curve of temperature, atmospheric humidity, rainfall and body weight of about 560 patients that were treated in the Madras Tuberculosis Hospital during the five years 1923-27 shows very interesting features

CHART II

It will be seen that the temperature curve varies inversely as the humidity curve all through the 5 years' period and that the weight curve runs parallel to the humidity curve and therefore inversely as the temperature curve. It is significant that in the year 1923, the weight curve is seen to run above the humidity curve, whilst in succeeding years it is below this latter. This is due to the fact that till the end of 1923 very early cases were as a rule admitted into the hospital which showed marked rises of weight after admission, whilst during

CHART III

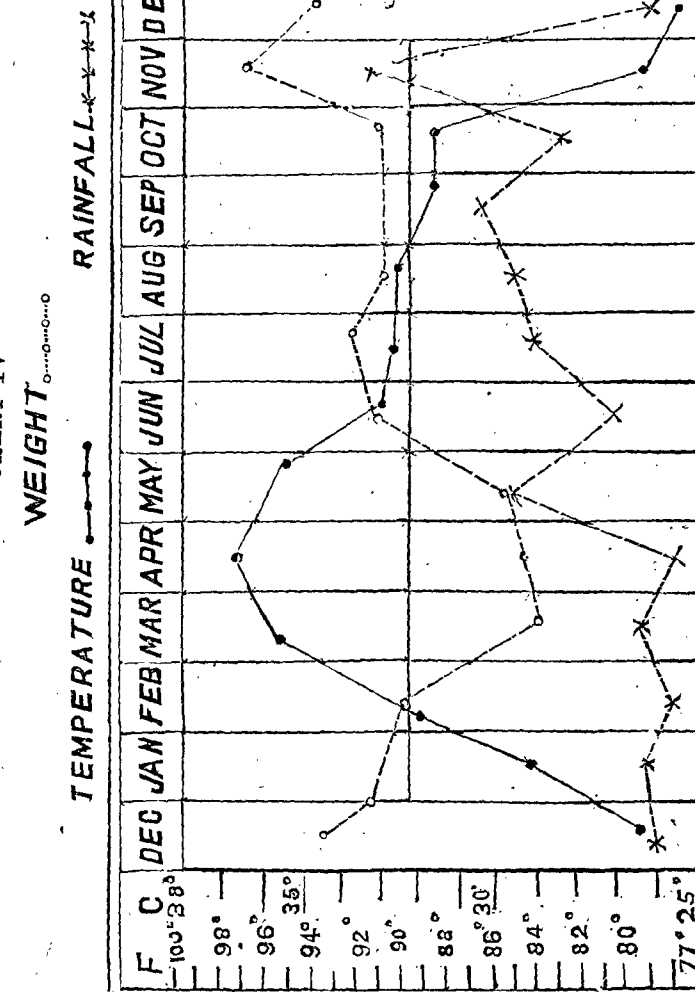
DENMARK AROGYAVRAM



1924 and succeeding years more advanced cases were admitted as a result of the introduction of artificial pneumothorax treatment and the increases of weight were naturally not as marked in these advanced cases. It will be seen that the rainfall has in fact on weight.

no effort III shows the relative weight curves of Denmark and Arogyavram. The rises of autumn and spring and early summer of the Denmark curve, whilst the slight rise of summer and the marked rise of the cold season and the fall of late summer, the

CHART IV



earlier summer characterize the Arogyavaram curve. The Madras curve as seen in Chart IV shows only one rise for the cooler months and the dip for the hotter months.

There is thus seen a general agreement of weight curves in all parts of the world; the apparent differences being due to the differences in the climate of the localities where the observations are made. Madras has practically two seasons with 2 variations in the curve, a rise in November to January and a fall in February to October. Arogyavaram has 3 main seasons with three variations, a fall in March to May, a slight rise in June to August and a bigger rise in September to February. In colder countries like Norway there are 4 variations viz., a fall in the hot and dry months, a rise during late summer and autumn, a fall in winter and a rise again during spring and early summer. Extremes of heat and cold and dryness of the air cause a fall of weight, whilst a pleasant temperature like that of summer in colder countries and the cold season in the tropics produces a rise in the weight curve. The rains have no particular effect on body weight.

The temperature and the humidity which conduce to personal comfort and promote metabolism and assimilation cause an increase of weight, whilst contrary conditions produce a fall of body weight.

The factors discussed in this paper have an important bearing on the location of sanatoria in India. These should not be constructed on the plains where it is hot or on the West Coast where it is both hot and moist. Too dry a climate may not also be congenial. A moderate elevation with a cool summer and moist, cooling winds during the hotter months will be quite ideal and suitable on condition that the place is not malarious, as unfortunately such places usually are in this country.

I am grateful to the Government Meteorologist of Madras for supplying me with the figures for temperature, humidity and rainfall for the city.

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* FILARIASIS

BY

DR. D. N. FORMAN, M. D. ALLAHABAD.

It can be stated without fear of contradiction from any one who has taken pains to investigate the question that filariasis can be included as one of the major medical problems of the United Provinces and of Allahabad City. For decades, perhaps centuries, the public and the profession have been familiar with elephantiasis in its various manifestations. But only comparatively recently has it been realised that the disease can exist without evidencing any of the pathological lesions which we have learned to associate with the presence of *Filaria bancrofti*: Lymphangitis, acute and chronic, Orchitis, Hydrocele, Funiculitis, Lymphangiovarix, Adenovarix, abscesses, fugitive swellings, etc. Surgeons of ability in various parts of this province have reported from the wealth of their experience the high incidence of such outstanding pathological conditions as varicocele and elephantiasis. The districts most heavily infected are:

Fyzabad, Gonda, Baraich, Basti, Gorakhpur, Azangarh, Balia, Ghazipur, Benares, and Mirzapur—all of which lie to the north and east of Allahabad.

In some of these places, thousands of hydroceles have been operated upon by individual surgeons during comparatively short periods of service. They and intramuscular abscesses are perhaps the commonest surgical conditions dealt with here in Allahabad, yet how seldom is the possibility of an underlying filarial infestation seriously considered, though it is not unreasonable to suppose that it frequently exists.

It is not, however, as a surgical problem, but rather as a major medical and public health problem that filariasis is being stressed here. Only recently by the aid of the Rivas concentration test, have we been able to prove to our own satisfaction that filariasis is one of most prevalent and baffling conditions met with in our dispensaries. As high as 16% of the concentrated night bloods in ordinary dispensary cases have revealed the presence of microfilariae, only about half the patients showing any external pathological evidence of the disease. These present a very wide range of symptoms which may or may not be always attributable to filarial infection:—repeated attacks of chills and fever; persistent head-ache, general aches and pains; vague ill-health, malaise, impotency;

* Specially contributed to "The Antiseptic"

occasional dysmenorrhœa; some times a refractory type of diarrhœa, etcetera *ad infinitum* are some of the complaints made by patients who are found to harbour filaria. A perusal of the records of these patients shows quite strikingly how frequently the clinician was floundering amongst such diagnoses as chronic relapsing malaria, latent tuberculosis, amœbiasis latent syphilis, focal infection, etc. To be sure, filariasis, like malaria in this province, may seldom be the immediate cause of death; however, there is little doubt but that it so undermines the health of the victim that bacterial infections find him an easy prey.

FILARIASIS.

Our plea is that here in Allahabad the Rivas concentration test be made just as much a laboratory routine as the urine test, and be performed in every case in which the clinician does not feel that the diagnosis is clear; and certainly in every case with constitutional symptoms, which shows even the slightest external pathological evidences which we know to be associated with filarial infestation.

You are doubtless all familiar with the simple concentration test which was originally used for the detection of malarial parasites:—Into a small tube containing 10 cc. of a 2 per cent acetic acid solution are taken 20 drops of blood from the patient's finger, at the laboratory. He is then given a pin and a small bottle of the diluted acid, and asked to repeat the procedure himself between 12 and 2 in the morning, after having slept for two or three hours, and to bring the bottle to the laboratory. The contents are centrifuged, and the supernatant fluid poured off; the sediment is spread on a slide, and searched with the low power. The test is simplicity itself, needs no stain, in fact can be done by substituting water for the acetic acidand is vastly more productive of positive results than the smear.

As far as treatment is concerned, needless to say, there is no specific. But we have been agreeably surprised to find that 60% of our patients have experienced considerable symptomatic relief from the intravenous administration of antimony. Nothing will sharpen our diagnostic acumen as far as filariasis is concerned, so much as the discovery of a specific. In our dispensaries, we have stressed the continuous use of the mosquito net, a much-neglected feature of personal hygiene because of the financial outlay involved.

*ACTIONS AND USES OF KALMEGH (ANDROGRAPHIS PANICULATA.)

BY

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Synonyms:—Beng—Kalmegh, Hindi—Mahatita, Gujrati—Kiryata, Tamil—Nilvembu, Telugu—Nilvema, Sans.—Bhunimba.

Habitat:—An annual bitter shrub common throughout the plains of India from Lucknow to Assam and Ceylon. It is cultivated in the gardens in some parts of India, specially Bengal.

Chemical Composition:—The intensely bitter taste appears to be due to an indifferent non-basic principle, since the usual reagents fail to indicate the presence of an alkaloid. Tannic Acid produces an abundant precipitate. The infusion is but little altered by salts of iron. It contains a considerable quantity of Sodium Chloride.

Preparations, Doses, Compositions:—Roots and leaves are only used.

1. Tinct. Andrographidis Co., Dose—1 to 4 drams.

R:—Kalmegh root bruised	1 ounce.
Orange peel dried and bruised	1 dram.
Coriander bruised	1 dram.
Proof Spirit	4 ounces.
Cold Water	16 ounces.

Macerate for 24 hours, boil and strain.

2. Inf. Andrographica. Dose— $\frac{1}{2}$ to 1 fluid ounce.

R:—Kalmegh root	6 ounces.
Myrrh }	
Alœs }	each 1 ounce.
French Brandy	0 ii

Macerate for 3 days and strain.

Physiological Actions:—The leaves and the root of the plant are febrifuge, stomachic, tonic, alterative and anthelmintic.

Therapeutic Uses:—It is used as a tonic, stimulant and gentle aperient in the treatment of several forms of Dyspepsia. In general debility, in convalescence after fever and in advanced stages of dysentery it has been found of considerable service. It is useful in sluggish liver and acts as a Cholagogue.

* Specially contributed to "The Antiseptic".

It has also given excellent result in Infantile Liver, a common complaint in Calcutta. It is also very efficacious in low remittent fevers of the children when combined with Arsenic. It is efficacious in Eczema.

Domestic Uses:—Fresh juice of the leaves is given with Aniseed (4 to 20) as stomachic and anthelmintic. It is often called Indian Chiretta and used as a tonic. It is the principal ingredient of the domestic preparation known as "ALUI", which is extensively used in Bengal for the relief of griping, irregularity of the bowels and loss of appetite of the children.

ALUI is prepared as follows:—

Take Cumin, Aniseed, capsules of greater Cardamoms, pound them well, mix with juice of fresh Kalmegh leaves. Make a mass and divide into several small pills and dry them in the Sun. One pill rubbed and mixed with human breast milk is an ordinary dose, generally repeated every alternate day or twice a week.

Some use it as an antidote to cobra poison. They make pills of fresh Kalmegh leaves with tamarind pulp. A pill made into a paste with water is applied to the bitten part and some of it is put into the eyes. Two pills are given every hour or two internally. The action is very doubtful.

* THE NERVOUS SYSTEM OF THE ANCIENT HINDUS

BY

ASHUTOSH ROY, L. M. S., HAZARIBAGH.

To study the nervous system of the ancient Hindus one should consult not only Ayurvedic books but also books on Hindu Yoga System including the Tantras.

As in modern western books, the nervous system of the ancient Hindus consist of

- (a) Nerves Cerebro-Spinal and Sympathetic including nerves of special sense.
- (b) Chakras or plexus of nerves.
 - (i) Subtle situated inside the Cerebro-Spinal axis.
 - (ii) Sthula outside the vertebral column.

Dr. Brojendranath Seal, Vice-Chancellor, Mysore University, had stated that in Tantric books, "The enumeration of the spinal nerves with the sympathetic chain of ganglia is a distinct improvement on the old anatomists" (e.g. Charak and Sushrut).

*Specially contributed to "The Antiseptic"

THE CRANIAL NERVES.

Seven important cranial nerves are specially mentioned besides the nerves of special sense. These are as follows:—

JASASVINI AND HASTIJIVA, PUSA AND GANDHARI.

These nerves supply the eyes and are probably the 3rd, 4th, ophthalmic division of the 5th and the 6th cranial nerves, each of which receives a branch from the superior cervical ganglion of the sympathetic. They should not be confounded with the "Rupa-baha Nadi" or optic nerve, the special sensory nerve of the eye.

PAYASVINI AND SANKHINI.

These supply the ear and are probably auricular branches of the 5th and 7th cranial nerves. These should not be confounded with the special sensory nerve of the ear.

SARASWATI

This nerve gives branch to the tongue and is probably the vagus or 10th cranial nerve. This should not be confounded with the special sensory nerve of taste.

THE SPECIAL NERVES OF SENSE

These are six in number as follows:

- (1) Gaudha-baha Nadi—olfactory or 1st cranial
(special nerve of smell)
- (2) Rupa-baha Nadi—optic or 2nd cranial
(special nerve of sight)
- (3) Sabda-baha Nadi—Auditory or 8th cranial
(special nerve of hearing)
- (4) Rasa-baha Nadi—Glosso-pharyngeal or 9th cranial
(special nerve of taste)
- (5) Sparsa-baha Nadis—Tactile nerves.
- (6) Mano-baha Nadis—Nerves of general sensation.

The Mano-baha Nadis, says Prof. Seal, are vehicles of consciousness or channels of communications between Jiva (Individual Soul) with the Manas Chakra (Sensorium in the Brain). It is not enough for sensation to rise to the level of discriminative consciousness, unless it is communicated from the Sensorium to the Individual Ego.

The non-sensory afferent fibres do not go to the cerebrum but to the cerebellum.

THE EFFERNET OR MOTOR NERVES.

These are known as the "Agha-baha-Nadis", nerves which carry the orders from the cerebral cortex to the periphery.

THE SPINAL NERVES.

Four groups of nerves are particularly mentioned.

- (1) *Varuna*—These distribute fibres to the chest and upper extremities.
- (2) *Vasvodhara*—These distribute fibres to the upper abdomen.
- (3) *Kuhu*—It is the dorsal nerve of penis supplying the sex glands.
- (4) *Alambuse*—These distribute fibres to the anus (Pudic) and to the lower extremity (the Great Sciatic), the two terminal branches of the sacral plexus of spinal nerves.

THE SPINAL CORD AND THE TWO SYMPATHETIC CHAINS.

These are the three important nerves of the whole lot of 14 nerves specially mentioned of which again Sushamna is the most important.

THE SUSHAMNA.

This consists of

- (1) The Spinal cord proper (middle portion)
- (2) The Filum Terminale (lower portion)
- (3) The Medulla and Pons (upper portion).

MINUTE ANATOMY OF THE SUSHAMNA

The Sushamna or the Spinal Cord is composed of

- (a) White matter situated externally known as Sushamna proper.
- (b) Grey matter situated internally round the central canal known as Bajra fibres.
- (c) Central canal of the cord known as Brahma-Randhra.
- (d) Fibre of Reissner known as Brahma Nadi or Chitra Nadi—a slender filament situated inside the central Canal.

COURSE OF THE FIBRES.

The "Bajra" fibres (grey matter of the cord) extend below up to "Muladhar Chakra" (Pelvic plexus of the sympathetic) where it meets the sympathetic fibres from Ida and Pingala (the two lateral chains of the sympathetic) forming the "Traipur Chakra" (Ganglia Impar or coccygeal ganglia).

It enters the cranium where it is continuous with the grey matter of the medulla and Pons.

The "Brahma-randhra" (central canal) is continued upward (as the 4th and 3rd ventricles) to the "Brahma-dwara" (Foramen of Monroe).

The Chitra or Brahma-Nadi (Fibre of Reissner takes its origin above the Brahmawara (cerebral ventricles) and runs down the Brahma-randhra (Central Canal) as a fine thread of spider's web.

The "Kundalini Shakti" (vyan vayu of Ayurved, the force in the human body which reacts against his environments, pass as a centripetal force along the Chitra Nadi.

THE IDA AND PINGALA.

These are the two lateral chains of the sympathetic, one on each side of the spinal column, the "Ida" is the left and the "Pingala" the right chain.

COURSE OF THE FIBRES.

They are connected with each other as well as the Bajra fibre at the tail-end forming the Ganglia Impar. Above they join between the eye-brows at the "ajna-chakra" (ganglia of Ribs) the last relay of fibres going to the nose.

The fibres of the Ida and Pingala freely communicate with each other as well as the Sushamna all along at the region of each chakra. Special mention has been made of the three "granthi" (knots) formed by the fibres of "Ida, Pingala and Sushamna" at the sites of three chakras as follows:

(i) *Rudra-Granthi*.—"Traipur chakra" or the plexus associated with the Ganglia Impar at the Muladhar Chakra (pelvic plexus.)

(ii) *Vishnu-Granthi*.—"Trikone chakra" at the "Anahata chakra" (cardiac plexus.)

(iii) *Brahma-Granthi*.—"Trikone chakra" or Triangular plexus at the (Subtle) "Agha-chakra" (Sajons' sympathetic centre at the floor of the 4th ventricle in the medulla oblongata).

The nasal terminal branches of Ida and Pingala (Filaments from the cavernous plexus of the sympathetic) distribute fibres to the nasal septum and the outer wall of the nose.

THE CHAKRAS OR PLEXUSES.

These are nerve-plexuses with or without ganglia and are of 2 kinds as follows:

- (i) Subtle centres in the Sushamna,

(ii) Gross chakras.

- (a) Associated with the sympathetics.
(b) Associated with the spinal nerves.

CHATA-CHAKRA.

These are six important gangliated and non-gangliated plexuses associated with each region in which the body is anatomically divided e.g., head, neck, chest, upper abdomen, pelvis.

Prof. B. N. Seal (Positive Science of the Hindus) considers these six chakras as the plexuses of spinal nerves. Dr. Rile (Mysterious Kundalini) considers them as gangliated plexuses of the sympathetic. Sir John Woodroffe (Serpent Power) considers these as subtle centres inside the Sushamna. Finally the Revd. Mr. Leadbeater (Chakras) consider these as both gross and subtle plexuses connected with the sympathetic, the former outside the vertebral column and the latter inside the Sushamna. Just as *vayu-pittya-kaphya* of Ayurved include both Humours and Hormones, as well as metaphysical and physiological "Tridosh", the various aspects of which had been described conjointly in Ayurvedic books, so also Yoga books like *Chata Chakra Nirutanam* and others give simultaneously the descriptions of the subtle and gross plexuses in the spine and outside associated with the sympathetics as well as the spinal nerves.

THE SIX CHAKRAS ARE

Spinal plexus

- | | | |
|----------------|---|----------------------------------|
| (1) Muladhar | } | (1) Prithivi Chakra and (2) Jala |
| (2) Svadisthan | | Chakra = Sacro-coccygeal plexus. |
| (3) Manipur | | Lumbar plexus |
| (4) Anahata | | Brachial plexus |
| (5) Vishuddha | } | Cervical plexus |
| (6) Ajna | | |

*Sympathetic plexus.**Subtle centre in Sushamna.*

- | | |
|-----------------------------|---------------------------------------|
| (1) Pelvic plexus | opp. 4th Sacral |
| (2) Sup. Hypogastric plexus | opp. 1st Lumbar. |
| (3) Solar plexus | opp. 8th Dorsal |
| (4) Cardiac plexus | opp. 8th Cervical |
| (5) Sup. Cervical ganglia | opp. 3rd Cervical |
| (6) Ganglia of Ribs | Sajono Sympathetic centre in medulla. |

Below Ajna is described a small chakra called "Lalana Chakra" of special importance in yoga, situated at the root of palate and corresponds to cavernous plexus. Its subtle centre is situated in the cerebellum.

THE FORCE OF THE CHAKRAS

I. *Spinal Chakras.**Name of force*

Prithivi Chakra (Earth plexus) in Muladhar—Dakini
Jala Chakra (Water plexus) in Svadhisthan—Rakini
Teja Chakra (Fire plexus) in Manipur—Lakini
Vayu Chakra (Air plexus) in Anahata—Kakini
Akash Chakra (Ether plexus) in Vishuddha—Sakini
Manas Chakra (Mind plexus) in Agna—Hakini.

These forces are different manifestations of "Kundalini" or "Vyan Vayu" of Ayurved which absorb the helpful forces and repel harmful forces acting on our body and mind from our surroundings etc., e.g. Earth, Water, Fire, Air, Ether and celestial bodies (e.g. Sun and moon which excite our mental emotions.)

They also supply nerves to the following regions respectively:—Dakini acts on lower extremity (Prithivi)

Rakini acts on pelvis	(Jala)
Lakini acts on upper abdomen	(Teja)
Kakini acts on chest	(Vayu)
Sakini acts on neck	(Ether)
Hakini acts on head	(Moon)

II. *Sympathetic Chakras.**Name of force.*

Muladhar—Pelvic plexus	}	Apan Vayu
Svadhisthan—Sup. Hypogastric plexus.		
Manipur—Solar plexus		Saman Vayu
Anahata—Cardiac plexus		Pran Vayu
Vishuddha—Sup. Cervical ganglia		Udan Vayu
Agna—Ganglia of Ribs		Maha Vayu

THE ACTION OF THESE FORCES.

Apan Vayu is concerned in the process of urination, defaecation, erection and ejection and gestation.

Saman Vayu is concerned with katabolism and digestion of food.

Pran Vayu is concerned in respiration and heart's action.

Udan Vayu is concerned in speaking, deglutition &c.

Maha Vayu is the force of the higher brain centres, the lower centres of which are situated as subtle centres inside the Sushamna.

The ancient Hindus believed that each centre in the spinal cord has a corresponding centre in the brain e.g. Sex Centre in spinal cord opposite 4th sacral vertebrae has the corresponding higher psychic centre in the "Kama-kala" inside Sahasra (Cerebrum).

PETALS OF THE CHAKRA.

Each chakra has got different number of petals from which, says Sir John, issue a nerve-branch (of communication or distribution).

Mula Chakra—4 petals.

Inf. Hæmorrhoidal plexus to Lower Rectum and Anus

Vesical plexus to bladder

Prostatic plexus to Prostate

Vagino-uterine plexus to Sex glands.

Svadisthan Chakra—6 petals.

Two branches form Inf. Hypogastric or Pelvic plexus.

Two communicate above with aortic plexus

Two communicate with Lumbar ganglia of the Sympathetic.

Manipur Chakra—10 plexuses as follows:

(1) To Phrenic or diaphragmatic plexus.

(2) To Supra-renal plexus.

(3) To Renal plexus.

(4) To Spermatic plexus.

(5) To Cardiac plexus which divides into 5 plexuses as stated below:—

(6) Gastric plexus.

(7) Splenic plexus.

(8) Hepatic plexus

(9) Superior mesenteric plexus

(10) Aortic plexus.

Anahata Chakra—(Superficial cardiac plexus) has got 12 petals.

It is formed by

(1) The left superior cardiac nerve

(2) Inf. cervical cardiac branch of vagus.

(3) Receives filaments from the deep cardiac plexus

which gives 8 branches.

(4) Forms the chief part of the anterior coronary plexus and sends filaments to the anterior pulmonary plexus. Making the total number as 12.

Vishuddha Chakra:—16 petals as follows: It divides into carotid and cavernous plexuses:

(i) Carotid plexus gives 4 branches: Communicating with

(a) Gasserian Ganglia

(b) 6th cranial

(c) Meckel's Ganglia

(d) Jacobson's Nerve.

(ii) Cavernous plexus gives 8 branches communicating with—4

(a) 3rd Cranial

(b) 4th Cranial

(c) Ophthalmic division of 5th

(d) 6th Cranial

(iii) Distribution (terminal filaments)

(a) to Pia-matter

(b) To orbit

(c) To interior of eyeball

(d) To Ganglia of Ribs

(iv) Descending branches—4

(a) Middle Cervical ganglia

(b) External branches

(c) Internal branches

(d) Anterior branches.

Agna Chakra:—2 petals—from two lateral Sympathetic chains Ida and Pingala.

STRUCTURES INSIDE THE CRANIUM:

These are divided into 3 groups as follows:

I. *Lower Brain* (Head End of Sushamna)

(a) 12 Petalled lobe—Medulla and Pons from which arise 12 cranial Nerves.

(b) A-Ka-tha triangle—3rd ventricle.

(c) Hansa—Pineal gland.

(d) Manipitha—Velum Interpositum on which is seated the

(e) Guru or Param Shiva—Fornix resting his two legs on the Basal ganglia in mid-brain. The triangle so formed is called Kama-kala.

(ii) *Mid-brain*.

(a) Suryamandal—corpus Striatum

(b) Chandra mondal—optic Thalamus Inside which are:—

(i) Chandra-kala or Am-kala Choroid plexus secreting Nector (C. S. fluid).

- (ii) Within is Nirban Kala seat of Nirban shakti (force of Salvation)
- (iii) Within is Para-vindu where Shiva and Shakti are united.
- (iv) Nibodhika-region of fire Below Nirban kala.
- (iii) *Upper brain.*
 - (a) Brahma-Randhra—Foramen of Monroe.
 - (b) Maha-Shankhini—Prolongation upwards of grey matter of Susahmna via basal ganglia—the seat of maha-vayu (higher centres of spinal cord in brain. These are regulating centres).
 - (c) Manas chakra—Sensorium (Sensory tract in upper brain)
 - (d) Sahasra—with its thousand petals corresponds to numberless convolutions at the top (motor tract in upper brain).

BIRTH CONTROL

BY

KIRPAL SINGH, L.S.M.F., GUJRANWALA.

It is one of the medico-social problems of the day. Every youngman newly or lately married is seen talking of it even when he might have no knowledge as to its real merits and demerits.

As many youngmen seek advice on this point the following might be of help to the medical practitioners in finding out the exact cases where to advise Birth Control.

Taking it from a religious point of view it is a sin against God and man. Husband and wife are co-operating with God for the future of the race.

Now what is the reason underlying its propagation. There are few who take the economic and the social point of view. With many it is lust wearing against soul.

Anything like unlimited multiplication would imply wrecking the physical constitution of most mothers and thus remorselessly penalising the half of mankind to be sacrificed to the all devouring idol of death. Similarly while a woman might give fair attention to say 3 children and succeed in establishing them in life, a number more than this will demonstrate the truth that happiness seldom accompanies married life in case when the merciful angel of death did not compassionately end the struggle at an early age.

*Specially contributed to "The Antiseptic"

With some it is an overpopulation problem, the problem to feed so many mouths in the near future, but it is not the overpopulation problem which we have to consider nor even the naked and cruel fact of high deathrate but we have to take into account the humanity of the mother and the fate of the children as physical beings.

Let us now admit that women are human beings invariably absorbed in sex-passions or that they have no other kind of intimate life with those of other sex.

There are different reasons why some women like to avoid pregnancies. Never so long as I live, shall I forget the look of abject misery which filled the eyes of a woman who was to become the mother of a 3rd baby. I have seen the look of shame in the eyes of the unmarried girl who is found likely to step into motherhood. I have seen the look of annoyance in the eyes of butterfly type of woman who although wedded hated the thought of motherhood because it might spoil her figure and would certainly curtail her pleasures but that look of misery in the eyes of one of tenderest and dearest of mothers was beyond me. She worshipped her two babies a long legged girl and a cheruby little son. My dear! she said as she thought of their mouth to feed.

Woman may grow newer and newer. They can never be so new as to despise the old old story and no one would like to sit long in a childless stage and do not anticipate little children tugging at their knees.

There is irresistible and universal tendency to find pleasure somewhere and this pervades in all life from the highest to the lowest. In all conditions life calls to life and each life craves for its union with its opposite by which it may perpetuate its kind. Although it is not illegal to use contraceptives, it is tacitly acknowledged with a shake of head as something only to be referred to in a whisper.

Methods of Birth-Control.

There are 4 methods that can be used.

1. Prevention of the entrance of spermatazoon into the vagina. This can be from both the male and female sides.

Female.—Use of Pessaries. These are small implements so arranged and set inside to avoid discharges from the female side. These are positively harmful because retention of the fluid after discharge will cause congestion and subsequent erosion. Further

its long continued presence inside is un-hygienic. There have been cases where patients have forgotten them and had to be removed only when found by accident. These are either rubber or vulcanite ones. Some special rubber pessaries are in the market, which are in the form of rubber rings with convex upper surface towards the uterus. The ring rests on the bone on the front. It does not in the least stand in the way of the fulfilment of sexual desire for the wife and the husband because both are unconscious of its presence. The wife can put it in the evening and put it out in the morning. It is made in different sizes from 50 to 90 m. m. in diameter and must in the first instance be filled by a doctor.

Male. Condous. These are small sheaths as are called generally by the name of French letters. They are safe and quite useful and least harmful. Each sheath needs individual testing by water and must be large enough to avoid risk of its rupture by seminal fluid. The one with an emission pouch in front is better.

Destruction of spermetazoo by chemical agents:—

There are many chemical agents which can kill the spermatazoa.

Use of Quinine pessaries.

They help at body temperature and thus kill the spermatazoa but it harms the uterine surface as well.

Immediate touching:—It is advocated by some. This cannot affect at all times because uterus has some suction action of its own. It is a good example of locking the door after the horse has been stolen. Interrupted intercourse is suggested by some. It should never be attempted as it puts a great strain and is similarly harmful as masturbation and leaves the woman unsatisfied in a nervous state and its constant use may result in nervous derangement. Further it is dangerous for both male and female as some congestion does remain which is ultimately harmful.

In short contraceptives sometimes do a great good and little harm and sometimes more harm and little good.

Every contraceptive will do away with the natural instinct of the males to woo his mate and for the woman to be wooed before she is won. The act is reduced to gratifying animal instinct and is shorn of romance and poetry. Marriage with contraceptives seems more to the parties a legalised prostitution.

Strict voluntary abstinence is the only right and useful means of avoiding the natural result of marital connection



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Love and not passion is the law of home. Not till passion is transformed into the calm steady face of love is the will of God fulfilled.

The next best thing is to intercourse in safe periods. It is thought that the fertility and curve rises to the highest point on the 6th day remaining there till 12th and gradually diminishing on 21st day. Between 22nd and 28th day of menstruation there is very little likelihood of "pregnancy" occurring.

CASES AND COMMENTS.

TWO CASES OF CANCER OF THE TONGUE OPE- RATED UNDER COLONIC ÆTHER ANÆSTHESIA

BY

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Mr. President, Ladies and Gentleman,

The first case that I wish to show is one of cancer of the tongue which I operated upon a few days ago with preliminary laryngotomy and under colonic ether anæsthesia. The cancerous ulcer was on the right margin of the tongue extending from the tip backwards. It was about an inch and a half in length and about a little over $\frac{1}{2}$ of an inch in width. Before explaining my reasons for resorting to this untried—at least untried in Poona—method of anæsthesia I want to consider some points as regards cancer in general and cancer of the tongue in particular.

The ideal surgical procedure in a case of cancer is to remove the primary focus with a wide margin of its lymphatic field so as to include the centrifugally permeated lymphatics en bloc. This ideal is most approached in the case of cancer of

the breast as the wide margin of tissue involved in the cancerous process can be removed with impunity, being free from any very serious or vital structures. Of course, even this does not exclude the danger of "distant dissemination" such as in the abdominal viscera through the blood stream. Mr. Sampson Handley in his book on "Cancer of the Breast" has put in the plea for the modification of the operation for cancer of the breast by making the primary focus as the centre irrespective of its position in the breast in view of this same theory of centrifugal permeation or "crowding" of the cancer cells along its lymphatics. I did three operations of mammary cancer by the method advocated by Handley under whom I had the pleasure of working as his House Surgeon for some months in England. Out of the three, one which was done over a year ago, is doing quite well as I saw her only recently. The second one which I did only a few months ago is also well. The third one, however, had a fungating scirrhus with enlarged shotty glands. I did her in the same way and she was perfectly alright for about six months after which she showed signs of secondary deposits in the liver and died 2 or 3 months afterwards. Now to turn to the case of cancer of the tongue the situation here is very different and difficult. In the first place the involvement of the glands is very early. As a matter of fact the infection of the glands commences even from the time when the ulcer is in its early, insignificant and suspicious stage. Secondly, the lymphatic system of the face and neck is so free and complicated in its inter-communications. The glands are not restricted to any particular facial or muscular stratum. As a rule the sublingual group, the submaxillary group and the deep cervical glands from the parotid above to the root of the neck below are all involved sooner or later. The deep fascia of the neck goes to form the carotid sheath and the radical operation means removal of the same involving careful dissection in close proximity to such structures as the common carotid, the vagus and the jugular vein, some of which are sometimes involved in the affection. Moreover, even after such radical and extensive removal of the glands of the neck on the affected side, the glands of the opposite side sometimes get affected later on.

Then again these patients are generally old, enfeebled and famished due to their inability to take nourishment because of the presence of a foul-smelling and painful ulcer in the mouth and hence are not likely to stand the shock of the one stage operation. Moreover the necessity of opening the mouth

through the neck in this one stage operation involves the risk of neck infection from the mouth howsoever you may be careful. For all these reasons I believe most of the Surgeons are agreed on doing the operation in two stages. One author especially gives a very pessimistic view, namely, that while unoperated cases of cancer of the tongue live for about 18 months the operation gives them only 7/8 months longer perhaps in comparative comfort. I may add here that distant dissemination is not common in this form of cancer. For all these reasons I decided to do the operation in two stages. Now the question arises again as to which operation is to be done first, the cervical or the buccal. Theoretically speaking the cervical is to be preferred. The advantages are that you do the more severe and tedious part of the operation first and that you have the advantage of removing the affected lymphatic area from the circumference towards its primary focus thus removing it *en bloc*; so also you get the advantage of being able to tie the lingual artery either of one or both sides during the same operation, thereby excluding the risk of haemorrhage during the buccal operation and simplifying the procedure very much. Of course the buccal operation must not be deferred after the cervical for more than ten or twelve days for fear of establishing free collateral circulation. The points against the cervical are that there is the risk of squeezing out the cancer cells from the tongue into the cervical region while doing the buccal part; of course, there is the plea that the fibrous scar, especially if situated below the submaxillary region, offers an effective bar against such happening. Now in my opinion the point of great importance and which made me undertake the buccal operation first is this:—Here in a patient of this class you have to take into consideration the psychology of the man. He comes with his mind firmly concentrated on the troubles in his mouth and if you did his cervical operation first howsoever deftly you may do it or howsoever theoretically correct it may be, he will be displeased thinking that his real trouble is unattended to and something else for which he did not bargain has been done and he has been made to undergo all kinds of hardships and inconvenience on account of the operation unnecessarily; and hence he may refuse the buccal operation. Now as you know death from a foul smelling and painful cancerous mass in the mouth is very much trying and horrible for the patient as well as the people surrounding him. Such is not the case with the secondary de-

posits in the glands. It is therefore of greater importance to have done with the buccal operation first. Hence I was faced with the situation of doing the buccal operation first without the facility of having been able to tie the lingual artery beforehand. To tie the lingual artery of one or both sides is not an easy undertaking and may involve a lot of waste of time before proceeding with the buccal operation if you mean to take the two procedures together. Now comes the point why I thought of trying the colonic ether anaesthesia. You can imagine the difficulty and annoyance that the operator is put to when he has to operate through a small opening like the mouth and on such a vascular structure as the tongue with one or two assistants and the anaesthetist and the nurse, all crowding and encroaching on the small space at his disposal and also perhaps obstructing the light which is essential. A good way of anaesthesia for such a case is perhaps by Crile's method of introducing tubes along the nasal floor to the entrance of the larynx or the intratracheal method which, however, means a special apparatus together with an anaesthetist skilled in the administration of it. As I had no facility for either of these methods I determined to resort to colonic ether anaesthesia. I had opportunity of witnessing the administration of it while I was House Surgeon at the Royal Infirmary at Sheffield. After my experience now I think it is quite an ideal anaesthesia in such a case as this. You get rid of the crowding as well as the tyranny of the anaesthetist and you are left absolutely undisturbed and concentrated on your operation. The method of inducing this anaesthesia is as follows:—You give the patient a cathartic the night before and wash out the bowel thoroughly early in the morning with soap and water and afterwards with simple tepid water till it is returned clear. You repeat the same process of washing out the bowel one hour before the operation. You also give the patient a hypodermic injection of morphia, atropine and scopolamine half an hour before you induce the anaesthesia. The anaesthetic mixture is to be made with ether and olive oil. The proportion of ether in the case of adult should be about 60 to 70 per cent. and in the case of children about 40 to 50 per cent. There should be one ounce of ether to every twenty pounds of body weight. The patient is put in the left lateral position with his buttocks raised and the freshly made emulsion is administered through a glass funnel with a flatus tube attached to it and introduced into the rectum about 7/8 inches.

The mixture must be run in slowly not exceeding one ounce to a minute. The patient comes to the stage of narcosis, the mixture is being slowly run in and this is followed by general anaesthesia. In my case I gave an emulsion of 4 ounce of ether, 2 ounces of olive oil, and 2 drachms of paraldehyde. By the time I washed my hands and changed into the surgical outfit the patient was brought in the operating room having lost his corneal reflex. So that this really in my opinion took a shorter time than the usual orthodox method of chloroform anaesthesia. As soon as he was brought in I did the preliminary laryngotomy and tied in the tube. Then I opened the mouth with the gag and put in two tension stitches of medium silk, one on each side of the tip and pulled them right forward and packed the pharynx with sterilized gauze looped with silk, taking care that the tongue was not pushed back while doing it. You have to change this packing if it gets soiled during the operation. Now instead of splitting the median raphe of the tongue from the foramen caecum along the dorsum of the tongue I took a slightly different course for reasons which I will presently explain. I started splitting the mucus membrane along the under surface of the tip through the sublingual groove and went back splitting the mucus membrane along the lower alveolar process as far back as the anterior pillar of the fauces which I snipped. I separated the under surface of the tongue from the floor of the mouth all along this line snipping by short cuts the Genio-hyoglossus. When the tongue was free I inserted with a semi-curved needle a deep tension stitch of stout silk inserting the needle on the dorsal surface immediately in front of the epiglottis and bringing it out on the under surface, thus transfixing the posterior third of the tongue as a control for bleeding from the lingual artery later on. Now comes the most ticklish part of the operation when you have to divide the tongue transversely at least an inch behind the cancerous ulcer and catch the lingual artery while doing it. Catchart has put this procedure on a methodical basis. His method depends upon the fact that when the tongue is freed along the floor of the mouth, from the alveolar processes, and when the anterior pillar of the fauces is snipped and the tongue pulled right out, you can reach the posterior third of it where the Hyo-glossus muscle is attached and under which the lingual artery runs. After dividing the mucus membrane of the side and dorsum of the tongue transversely, one inch behind the posterior margin of

the ulcer, you do blunt dissection making the wound gape by keeping a pull on the tension stitch at the tip. Then you define the anterior edge of the Hyo-glossus and gently insert a director underneath it and divide it to about two third of an inch. In the depth of the wound thus left you find the lingual artery as a bluish cord. You catch it and tie it. Now I come to the point of not having divided the median raphe in the beginning of the operation. The right course is to divide the tongue with a margin of one inch of healthy tissue—at any rate not less than $\frac{1}{2}$ of an inch—from any part of the cancerous ulcer. Hence the slavish way of dividing the dorsum along the median raphe irrespective of the distance of the margin of the cancerous ulcer is to be condemned. So I took an elliptical incision encroaching a little on the further side of the median raphe on the dorsum. This involved, of course, certain amount of fresh bleeding which was however easily controlled. After dividing the tongue, I carefully approximated the raw surfaces by curving the healthy half of the tongue on itself and co-opting it with the truncated portion of the affected side with 3—4 equally placed catgut stitches. I applied Whitehead's varnish to the two opposing raw surfaces before tying the stitches. Another point I may mention here is that after tying the lingual artery I transfixed the same in the muscular tissue and buried it. I found this almost a bloodless operation. After removing the patient to bed we washed out his bowels with soap and water and left in some olive oil inside the rectum. I removed the laryngotomy tube the next morning and commenced feeding the patient by the mouth with milk on the second day. The deep tension stitch was removed on the fourth day. The patient was gargling the mouth with Condy's fluid all the time and was fairly comfortable and sitting up on the third or fourth day. In a week's time the wound was perfectly healed and the patient was able to swallow and talk quite well. The risk of colonic ether administration is mainly confined to unhealthy states of the bowel. As long as you are sure that the bowels are healthy and as long as you limit the dose according to the calculation given above and ensure free airway and inhalation of oxygen, if necessary, there is no risk in this method of anaesthesia. If the anaesthesia is insufficient you can hold a towel wrung out of lotion over the mouth or the laryngotomy tube as the case may be and make the patient inhale the exhaled ether thus increasing the anaesthesia. So

also we can diminish the anaesthetic effect by drawing out a little of fluid from the rectum by an assistant passing a rubber tube; but it is better to err on the safe side and give a little less than more, never exceeding eight ounces of the mixture. If the anaesthesia is less, you may give a few whips of chloroform in the usual way. In my case I never required even a single whip of chloroform. The only disadvantage of this method of anaesthesia in a case like the above is that the patient is under for a longer time after the operation and the laryngeal reflex does not return soon enough. The danger in these cases is the development of broncho-pneumonia by the blood getting sucked into the air passages and the early return of the laryngeal reflex is hence of great importance in the prevention of that condition. The attendant nurse therefore has to be more careful and vigilant until the patient has come round.

Since demonstrating the above case I operated on another case of Cancer of the Tongue under the same anaesthetic. As the cases were so similar and the technique was the same all the above remarks apply to the other case as well.

CONGENITAL CATARACT

BY

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Cataract in the old is very common, but in a small percentage of the young persons too one often comes across lenticular opacities. It may be congenital or acquired. The former may be anterior polar cataract, posterior polar cataract, capsular cataract or the opacity may be in the substance of the lens—lamellar cataract. The congenital lamellar cataract may be stationary or progressive. Patients in this country do not worry for the cataract so long as they are able to carry on their daily work. It is only in the progressive form of cataract that they seek the medical aid.

Etiology of congenital cataract is obscure. Some believe that it is due to intra-uterine disturbances. Others attribute it to malnutrition after the birth of the child. Just as deficiency of proper food in rickets causes disturbance in the growth of bones, so does the epithelial tissue of cataract suffers in its development under such conditions.

Diagnosis of lamellar cataract is easy. In dark room oblique illumination is enough to detect it in a fairly advanced

case. Otherwise ophthalmoscope settles the diagnosis in no time.

Treatment of progressive form of lamellar cataract in the young is long and tiresome both for the patient and the surgeon. Since there is no development of the nucleus and in the lens in young persons usual method of extraction of the lens is not possible. Smith's operation of intra-capsular method of extraction is not free from risks. Hence, *descision* is almost always resorted to. I shall narrate below the treatment of an interesting case of cataract.

On April 10, 1928, was admitted into Sir Gangaram Free Hospital, Lahore, a female patient named Kako. She was twenty-five years of age, was married and had had children. She had congenital cataract of lamellar type in each eye. The cataract was of progressive nature. Her vision at the time of admission was 3/60 in the right eye and counting of fingers at a distance of two feet in the left. Projection of light was good in each eye. Fundus reflex in ordinary state of the pupil could not be obtained, but when it was dilated with Homatropine drops, the fundus reflex could be faintly seen in each eye.

On April 4, 1928, R. S. Doctor S. N. Kaul, M. B. Ch. B., Honorary Ophthalmic and Aural Surgeon, performed the operation of *descision* in the left eye. Next day when the eye was opened the lens was swollen up. There was, however, no rise of tension to warrant an immediate curette evacuation.

14-4-28. *Descision right eye.* The second eye began to follow the course taken up by the left eye. The lens became swollen and the progress was satisfactory. The eye, however, became injected after a few days. It was due to rapid swelling of the lens pushing forward the iris and thus impeding the proper flow of the aqueous Humour. Curette evacuation was therefore decided and carried on. A keratome incision was made in the upper quadrant of the limbas of the right eye and with a curette slight pressure was exerted at the region of the lower limbus. Most of the lens matter came out with the aqueous Humour through the wound.

At the same time *descision* was repeated in the left eye. It was believed at that time that recovery now would be uneventful. But on 7-5-28 the patient began to complain of pain in each eye. The eyes were slightly injected. No cause of the troubles could be ascertained. It was thought that the

trouble was due to acute catarrhal conjunctivitis. She was therefore put on washes and protongol 5% lotion drops, two or three times a day. There was no relief after a few days' treatment.

10-5-28. The cause of the trouble became evident. Examination with oblique illumination in the dark room revealed keratitis punctata in each eye, and signs of Iridocyclitis in the way of a yellowish exudate in the upper quadrant of the pupil became apparent. How did this come about, was difficult to answer.

Blood was sent for Wassermann's test and the result was negative. The patient was put on sodium salicylate mixture 3 times a day.

15-5-28. The patient was relieved of her pains. Keratitis still was just the same and had not abated at all, along with it some injection of the conjunctivae was still present. Vision had, however, improved a little. The patient could discern the movements of hand in front of her eyes.

24-5-28. Right vision = fingers at one meter. The lens matter was absorbing and there was a little black hole in the right eye forming its pupil. Still keratitis was just the same.

Blood was once again sent for Wassermann's reaction under a pseudonym and was once again found to be negative. In spite of all that the patient was put on potassium iodide mixture.

31-5-28. Right eye—the upper part of the pupil was dark. The cortical matter was fast absorbing. Left eye—showed unabsorbed cortical matter. The keratitis in the right eye was a little better. The spots had gradually begun to disappear.

7-6-28. Right eye vision = 1/60. Condition of keratitis in the left eye was just the same. The patient was given an intravenous injection of Neosalvarsan (25 g), in spite of the fact that Wassermann's test had indicated no specific disease.

15-6-28. The keratitis had much improved almost half of the cortical matter in the right eye had absorbed. The remaining half was fast absorbing. The patient was still on Potassium Iodide mixture.

25-6-28. Keratitis Punctata entirely disappeared in each eye. Even the yellowish exudate in the anterior chamber vanished. Another week injection of Neosalvarsan (30 g) was administered.

29-6-28. The pupil was almost cleared of the cortical matter. With +12.0 D Sph. the vision improved upto 6/36. No

sign of Keratitis Punctata was left behind. The cortical matter in the left eye also began to absorb.

9-7-28. Another week injection of Neosalvarsan. (30 g.) was administered. The cortical matter in the left eye was absorbing in a curious manner. A part of it would dislodge from its place and proceed to the posterior surface of the cornea. It would then remain stuck to that place for a day or two; then fall to the bottom of the anterior chamber and gradually begin to absorb.

9-8-28. The lens matter almost absorbed by this time. Vision with + 12.0 D. Sph. came up to 6/36. Glasses were prescribed for both eyes and the patient was discharged with instructions to report again in a month's time.

Certain cases of congenital lamellar cataract require four or five needlings. In the above case it may be noted that the left eye had to be handled only twice. It took a long time for the lens matter to absorb. Keratitis Punctata disappeared with injections of Neosalvarsan and Potassium Iodide mixture. It is strange that the Wassermann's test was found twice negative; once under original and second time under a Pseudonym. There was absolutely no history of Leu's infection. In spite of all that anti-syphilitic measures proved of real value. It is quite possible that the disappearance of Keratitis Punctata was an event in the usual course of the disease, and the coincident injections of neosalvarsan got the credit thereof. The facts, however, are there.

A CASE OF CONGENITAL STENOSIS OF THE RECTUM SIMULATING DYSENTERY

BY

N. CHATTERJEE, M.B., MEDICAL OFFICER, UNION
SOUTH MILL, P.O. BARTALLA.

I was asked to see a case in consultation with a friend of mine for passage of blood and mucus in a child 2½ months old. The case was diagnosed as a case of bacillary dysentery, as that was epidemic at that place and time.

Gradually the patient went down with very slight improvement. The stool was sent for examination to a well known Pathologist in Calcutta and the report came as one "Monila Spirillum" found in the stool, and no Amœba.

But one of my drawbacks in practice is to accept the Pathological report with caution. Specially if it does not

tally with clinical diagnosis. I disagreed with the pathological diagnosis and took the case to Lt. Col. V. B. Green Armitage who like me refused to believe the case to be Sprue. He just put his little finger (though sufficiently big to call little) smeared with vaseline into the rectum. The child was in marasmus condition and I thought he was going to die of the shock. A few drops of blood came out. But to my utter surprise, I found the tenesmus much reduced, and the child made uninterrupted recovery. Only occasionally, his rectum had to be dilated with finger.

By this note of the case, I don't mean any disrespect to the pathologist, but what I mean to say is that pathological reports must be accepted only when it coincided with the clinical diagnosis.

NOTES ON A CASE OF BLACKWATER FEVER

BY

S. K. BASU.

Patient N. B., Hindu male aged 18 years, who had been a victim to Malaria and albuminuria lately got fever on 17-1-28, which came on with a little shivering and headache. The temperature went up to 100°F. in the evening. Next morning it fell below normal to rise again in the afternoon to 103°F, accompanied with severe rigor, headache, nausea, anorexia, bilious vomiting and restlessness. On the third morning the temperature came down to 96°F. but rose again in the afternoon to 104°F. ushered in with rigor and other symptoms of the last evening. The symptoms were more pronounced than those of the previous evening and he began to pass bloody urine copiously. Next morning (*i. e.* on the 4th day) the temperature did not come down below 100°F and took a remittent type varying from 100°—102.8°F. for the two succeeding days, coming down to normal by lysis on the 10th day with proper treatment.

On the morning of the fourth day, the patient looked very ill; extremely pale; slight jaundice was noticed which deepened the day following. Intense pallor, restlessness, and jaundice were the outstanding features in the general appearance of the patient. The other troublesome symptoms were nausea, retching, thirst, headache, hurried and difficult respiration and mild symptoms of acidosis. The intellect was clear all along.

On Physical examination (of the circulatory system) the pulse was found to be about 116 per minute; the volume and tension

were low. Hæmic murmurs could be heard in almost all the areas of the heart. The skin of the entire body was tinted lemon-yellow, the conjunctiva and Sclera deep yellow.

Of the alimentary system:—The tongue was dry and red. The tonsils were found greatly enlarged, almost meeting in the middle line, and looked extremely angry and red, thereby disclosing the seat of great mischief. The liver and spleen were found enlarged from 2-3 inches. There was some dysphagia as well.

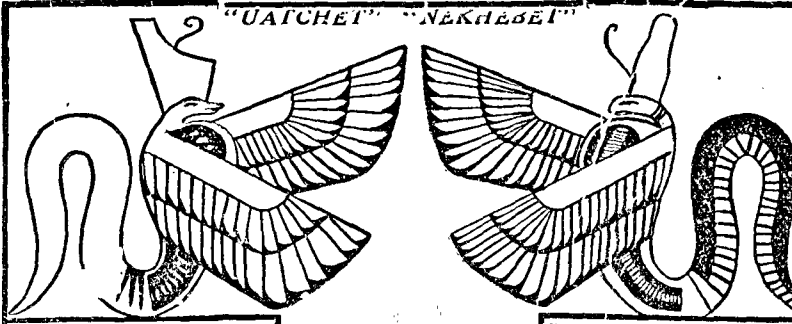
Of the Respiratory System.—Nothing beyond slight cough, dyspnoea, and air-hunger could be noted.

Of the Nervous system.—Restlessness and prostration were the only symptoms present.

Urine Examination.—Reported the presence of Blood and Albumin (copious) Acetone, diacetic acid, a few W.B.C. hyaline casts and Micro-Organisms but No. R.B.C.

Blood Examination.—Report showed—Hb.—25%, R. B. C.—1,250,000, W.B.C.—18,000. No parasites (M.P. or L.D. bodies). As the condition of the tonsils suggested the probable source of infection, a throat-swab was taken and the culture, made from it, revealed the presence of *Streptococcus hæmolyticus* in enormous numbers. Adequate treatment was adopted and the patient made an uninterrupted recovery. The hæmoglobinuria, Jaundice and fever gradually disappeared within the course of the next week.

Remarks —We are yet in the dark about the ætiology of Blackwater Fever. Considering the clinical findings of this case (viz., the plentiful presence of *Streptococcus hæmolyticus* in the culture made from the throat swab and absence of M.P. or L.D. bodies in the blood or other microbes in the urine), one might reasonably think of the possibility of a certain strain of *streptococcus hæmolyticus* being the cause of hæmoglobinuria in this case at least. Of course, one could have gone still further (if circumstances permitted) to confirm this, by finding out whether the organism obeyed Koch's Laws.



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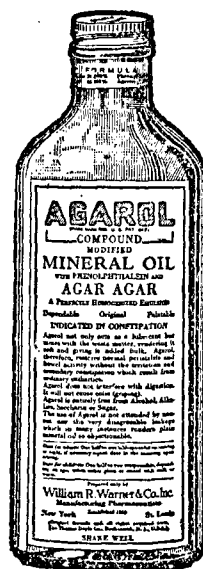
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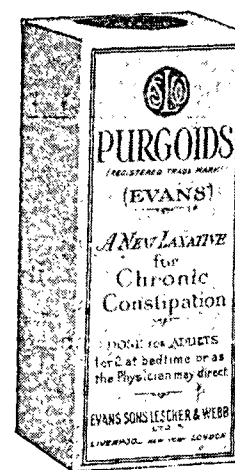
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The Antiseptic

NOVEMBER, 1928.

THE GRIEVANCES OF RURAL MEDICAL PRACTITIONERS.

Full three years have rolled by since the Rural Medical Relief Scheme was inaugurated during the 2nd Panagal Ministry and we think it is high time now to take stock of the situation and pronounce our verdict on it. The aims and objects of the scheme are indeed laudable, in that (1) it serves to extend the much-needed medical relief to the rural population in remote parts of the Presidency, and (2) it seeks to solve in a way the problem of unemployment among medical men which is becoming more and more acute. But, in practical working, innumerable difficulties and obstacles have been encountered and several disabilities have been imposed, which seem 'to cast an ominous conjecture on the whole success'. We shall try to enumerate some of the glaring defects in the scheme and the grievances of the Rural Practitioners, so far as we have been able to gather, and commend them for the earnest consideration of the present head of the Medical Department, who is reputed to be not only a broad-minded and sympathetic officer but also one endowed with high professional gifts and attainments and of the Hon'ble the Minister in charge of the Medical Portfolio.

The first item which we wish to draw the attention of the authorities to, is the meagre subsidy allowed to the Rural Medical Practitioners. Out of this pittance, they are expected to rent, a decent building, not inconsistent with the dignity and the aseptic conditions which the profession demands, engage a whole time servant and meet all contingencies, which cut away a big slice therefrom, say Rs. 20-30 a month. What is then left for appropriation by the Practitioner himself can be expressed only in a single digit

which can in no sense be called a 'living wage' for a medical practitioner, who has spent some Rs. 4000 to 5000 in all and undergone a course of 4 or 5 years in a Medical School or College, to equip himself for the practice of his profession. Of course, the Rural Practitioner is told he has his private practice to supplement his income. But, under clause (2) of the agreement he has entered into with his local authority, he has to provide 'the necessitous poor' with free treatment and free supply of medicines. 'Necessitous poor' has been defined as persons or members of the families of persons, whose monthly income does not exceed Rs. 30. We ask in all sincerity: "Is there at least one out of a hundred in a village, whose income exceeds Rs. 30 a month? Is the Rural Medical Practitioner furnished with a list of all persons in his area, whose income is above Rs. 30 per mensem, so that he can discern who are all paying patients and who are not? Rich men in rural parts, if they are enlightened, are always influential with the local demigods and woe unto the Medical Practitioners who demand prompt and adequate payments for professional services rendered! They must be satisfied with what the rich patients give and cannot claim fees as a matter of right. On the other hand, if their clients happen to be ignorant but rich rustics, they often consult their family quacks and are content with the treatment they give. It is only as a last resort that they approach the Rural Doctors but with either empty hands pleading poverty or with a powerful influence being brought to bear on them, for concessions, such as lowering the fees, etc. Furthermore, there is almost always a Local Board Dispensary situated in the vicinity of the Rural dispensary and in these days of quick transport, cases go there for free treatment and free medicines. Thus, it is clear, that under existing conditions of village life, in which ignorance and poverty play a conspicuous part—not to mention feuds, factions, jealousies and intrigues—there is not even the remotest chance of a rural practitioner hoping to get a decent income from private practice equivalent to the pay of a medical officer of his grade and qualifications in Government employ. Now what is the remedy? Either enhanced subsidy which would make up for the rent, servant's wages and contingencies now incurred by the Practitioners or better still construction of a combined quarters and Dispensary for the Rural Practitioners. We venture to make this latter suggestion, because we know that in almost every village

there exists a Chavadi or Court-house for the village official and the Rural Doctor is, in our opinion, no less important a personage than he. It is quite essential that the rural dispensary should be located at a safe distance from the village homes, which, from the sanitary point of view, are far from satisfactory. We understand that the Rural Practitioners have in Conference assembled passed a resolution requesting the Government to give them building advances, so that they may build their own houses and dispensaries and thus stabilize their practice. This is a very reasonable, desirable and modest request, which the Government ought not to ignore.

Secondly, we come to the question of the treatment of these Rural Medical Practitioners. At present, they are under dual control, the Presidents of Taluq Boards and the District Medical Officer. So far as we can see, there is nothing in the terms of the agreement to warrant unnecessary interference on the part of the Presidents of Taluq Boards, with the working of the Rural Dispensaries. The District Medical Officer should be the channel through which all correspondence should pass and the opinion of that officer should always prevail in dealing with this class of officers. Otherwise the Rural Practitioners will become the playthings of party factions and politics, much to the detriment of their work and status. We need not here iterate all the cases of ill-treatment meted out to the Rural Practitioners by the Taluq Board Presidents which have come to our notice. Suffice it to say that such ill-treatment had been the cause of resignations tendered by many a Rural Practitioner in the past and deep discontent now prevalent among the existing few. Such a state of affairs cannot certainly lead to the success of the scheme.

Thirdly, there is the vexed question of appointing midwives. The rural medical practitioners are denied the privilege of appointing midwives of their own choice, the Presidents of Taluq Boards and District Medical Officers vieing with one another in thrusting their own nominees on the rural practitioners. The contract stipulation is clear and unambiguous on this point. It says: "If the practitioner shall engage, maintain and employ a qualified midwife in the village, the Taluq Board will pay to the practitioner an additional sum of Rs. 100 per annum payable by equal monthly instalments." It does give an undoubted right to the Practitioner alone to employ such midwives. In order that he may have proper disciplinary control

over his subordinates, the power of appointment should rest only with him. Evidently, the absence of midwives in many of the Rural Dispensaries is attributable to such unnecessary interference on the part of these higher authorities in the internal administrations of the rural dispensaries. A Rural Dispensary with no midwife attached to it is no good and it is only through the practice of surgery and midwifery that a Rural Practitioner has to gain popularity. The relationship between the Presidents of Taluq Boards and Rural Practitioners being merely contractual, the latter must be given freedom to employ their own agency to fulfill their portion of their contract. We hope that the Government will intervene and set things right.

Lastly, there are certain minor grievances such as the lack of equipments to the Dispensaries due to failure on the part of the Presidents of Taluq Boards to supply for the treatment of the poor patients, especially surgical instruments and the like, leave facilities etc., about which the Rural Practitioners, we understand, have already memorialised the Government and which we trust will receive sympathetic consideration at the hands of the authorities.

To conclude, apart from its helping the formation and growth of the independent medical profession in this presidency, the rural medical scheme is beneficial to the State and the local bodies in that the burden of expenditure on medical relief is gradually shifted on to the people as in all other civilized countries, and unless sufficient encouragement is shown to the Rural Practitioners in the experimental stage, the scheme is bound to fail.

AN APPEAL

The Hony. Secretaries, All-India Medical Conference, 62, Bow Bazar Street, Calcutta, write under date 10th Nov. 1928, as follows:—

The All-India Medical Conference will be held in Calcutta during the Ensuing Xmas Holidays. Many important problems concerning the profession and Public Health are likely to be discussed at the meeting. The Scientific and Public Health Section (including Maternity and Child Welfare) will occupy an important place in such a Conference.

It is desirable that there should be placed before the Conference papers of outstanding merit such as would mark a distinct advance in our knowledge concerning the diseases peculiar to this country.

May we invite you to contribute a paper and take part in the deliberations of the Conference?

We would request you to forward a synopsis of your papers to the Secretary (Scientific & Public Health Section) by the 30th November, 1928. The papers should reach the Secretary by the 15th December 1928.

Fee for ordinary membership to the Conference is Rs. 2 and for the Reception Committee Rs. 5. [ED. ANTISEPTIC].

CURRENT TOPICS.

SURGERY.

The Tonsil Problem.—Richard Waldafel, M.D., Clinical Assistant, Vienna, Austria (Arch. of Otolaryng., Vol. 8, No. 2, p. 127). This research problem deals with the physiology and pathogenesis of the tonsils. The investigations were made in the clinic of Prof. Hajek and centered around the lymph stream drainage to, in and from the tonsils. The occurrence of tonsillitis following endonasal operations led to the opinion that the lymph stream courses from the nose to the tonsils, and that the latter are the regional lymph nodes of the nasal mucosa. Schlemmer made histologic, experimental and clinical studies of the problem. He determined that neither the palatine tonsils nor the remaining lymph tissue of the pharynx possess afferent vessels. Injection of a dye into the tonsil showed that the dye was transported only to the regional glands of the neck and never toward the pharynx. This was evidence against the theories which assume the presence of a pharyngeally directed lymph stream and a protective action of the tonsils in this sense. Carcinoma of the sinuses, turbinates, pillars and uvula cause metastases in the regional lymph nodes but never in the tonsils. These results proved that a tonsillar disease coming from the nose by way of the lymph stream does not exist.

In the subsequent investigations by the Viennese Clinic the problem was attacked from the bacteriologic standpoint. The following conclusions were reached:

1. Tonsillitis cannot be transferred by inoculation from tonsil to tonsil or by the transfusion of blood from diseased to healthy persons.
2. The phagocytic power of the patient's blood against the streptococci cultivated from the patient's tonsils increases in

direct ratio with the stage of healing, and the resistance of the organism against these streptococci increases likewise.

3. The streptococci in persons with tonsillitis are not accidental and secondary symptoms but are in close relation to the disease and its course.

4. Lacunar tonsillitis is not a superficial disease but is a deeply extending destructive disease of the tonsillar parenchyma. The pictures correspond to the phlegmonous stage of appendicitis described by Aschoff. It is not a simple catarrhal infection. The opinion is gaining force that the infection courses from the depth of the tonsil to the surface. The older prevailing opinion was the reverse.

5. The function of the lymph follicles is not exclusively, if at all, centers of production of lymphocytes V.C.S.—*Minnesota Medicine*, Oct. 28.

Causes of Intussusception.—W. E. Hartshon, in discussing intussusception, comes to the conclusion that the majority of cases of intussusception have as a back ground one of three things: First, an usually mobile cæcum or ileum; this is common in infancy, and is the reason why more cases occur at that time than at any other. Second, a tumour of the ileum near the ileocæcal valve; when this is present, and there is also a protrusion of the mucous membrane of the ileum through the valve, producing incompetency, an easy route is offered for the intussusception. Third, some factor producing hyper-peristalsis; this may be an obstructing band, a Meckels' diverticulitis, a typhoid or tuberculous ulcer, or any other inflammatory condition.—*Practitioner*, March '28.

Obstructions of the Vesical Neck.—Charles P. Mathe (*Am. Med.*, October, 1927) is strongly impressed with the value of the electro-cautery in the treatment of these cases. His conclusions are as follows: 1. A number of obstructions situated in the region of the bladder consisting of the median bar formation of Mercier, the fibrous band-like scar that sometimes occurs after prostatectomy, hypertrophy of the median lobe and of the sub-trigonal group of glands, hypertrophy of the trigone, papillomata of the neck and valve producing polypi, are a cause of urinary obstruction causing symptoms very much like prostatism. 2. Back pressure resulting from these lesions is a cause of stasis in the bladder, and kidneys, giving rise to the formation

of diverticuli of the bladder, hydroureter and hydronephrosis, and favouring infection of the genito-urinary organs. 3. Although numerous methods of removal have been described the simple procedure consisting of burning a trough-like tunnel through the obstruction of the electro-cautery, using the electrode of McCarthy through any modern cysto-urethroscope, gives as good results as any. This can be accomplished under direct vision. It allows for regulation of the amount of tissue removed and can easily be accomplished without pain under local novocaine anæsthesia. This method of removal is followed with less hæmorrhage, has no mortality and requires no hospitalization nor inconvenience to the patient. 4. The immediate and ultimate relief is uniformly good in practically all early cases. The more advanced cases often require two to three fulgurations and, although all of these are not completely relieved, they are greatly benefited.—*S. J.M.S.* Aug., '28.—V.C.S.

Traumatic Abscess of the Omentum.—H. K. Sowles (*New England Journal of Medicine* p. 554).—Traumatic abscess of the omentum does not seem to have been recorded.

A man, aged 43, employed by a milk company, was admitted to hospital on July 5, 1925. Six weeks previous while doing his regular work of lifting quart milk cans to the height of his shoulder and emptying them into a vat, he received a severe blow on the abdomen. A fellow workman who was lifting the opposite side of each can either slipped or lost his hold upon a can so that it slipped, and the patient, in an effort to keep it from falling, received the full weight of it suddenly upon the upper abdomen. He immediately suffered intense pain over the upper abdomen, more severe on the left. He sat down for a while and after an hour felt so badly that he went home. He remained away from work for a day or two and then returned but did not feel well and was unable to do any lifting. A large ecchymosis developed just to the left and above his umbilicus. He had not felt able to lift the quart milk cans since his injury. Four days before admission, after lifting a moderate weight, he was seized with a severe pain in the left lower quadrant. This pain gradually subsided. On the day of admission, without any warning, he suddenly had an attack of intense pain in the left lower quadrant followed at once by vomiting and later by chills.

The writer saw him 3 or 4 hours after the onset of the last acute pain. The skin and mucous membranes were pale and

the expression indicated acute suffering. Temperature 98.6°, pulse 100, respiration 30, white blood count 20,000. Abdomen was rigid throughout and extremely tender; no distention. Area of slight discolouration about 4 inches in diameter over the left rectus muscle just above the umbilicus—the remains of the ecchymosis. Although there was no definite history of gastric disturbance, acute perforation of the duodenum or possibly of the appendix was diagnosed. The story of the 6 weeks old injury was minimized as probably having nothing to do with the present acute symptoms; in fact, the minor details of this injury were not obtained until later.

Because the diagnosis was not certain, incision was made through the right rectus muscle just opposite the umbilicus. Some purulent fluid was found in the peritoneal cavity. Examination of the stomach and duodenum showed nothing. Therefore, the incision was extended downward and more purulent fluid was found in the pelvis than in the upper abdomen. The appendix was adherent behind the cæcum and was injected, but there was not enough inflammation to account for his symptoms. On exploring toward the left side of the abdomen, an inflammatory mass as large as a baseball was found. This mass was adherent to the under side of the abdominal wall directly beneath the site of the external discoloration. It was freed from the abdominal wall by dissecting with the fingers and was drawn up into the incision. It proved to be a mass of omentum and thick yellow pus was oozing from a small perforation on its posterior surface. The whole mass was excised. A drain was put in the left flank through a stab wound at the outer edge of the left rectus muscle. The incision on the right was closed without drainage. The patient was in fair condition following operation.

Convalescence was slow but uneventful. He remained in a rather critical condition for a week. There was considerable superficial sepsis in the abdominal incision and a good deal drained through the stab wound as well, but the incision and the stab wound cleared up slowly. The stab wound was entirely healed on the eighteenth day after operation. The incision was entirely closed and the patient walking about in 32 days.

Pathological Report.—A piece of omentum, 14 cm. in its greatest dimension, in the centre of which is an abscess cavity about 4 cm. in diameter. Microscopic examination showed

infiltration with leucocytes and the usual appearance of acute inflammation.

Diagnosis.—Traumatic abscess of the omentum with acute perforation into the abdominal cavity.—*V. C. S.—Medical Review* Oct. 28.

Diagnostic Difficulties in Hæmorrhage from the Gastro-Intestinal Canal.—J. Petermann (*Deutsch. Med. Woch.*, p. 1507).—

1. A man, aged 56, was sent to hospital with a diagnosis of gastric or duodenal ulcer. He had suffered for 4 years from gastric trouble. Two months previously he had a severe hæmatemesis which had recurred and in one of the recurrences he died. Necropsy: cirrhosis of the liver.

2. A man, aged 22, had been treated for 2 years for gastric ulcer without result. Operation revealed no abnormality in the stomach or duodenum. The patient died 2 months afterwards and necropsy showed cirrhosis of the liver.

In both these cases the symptoms were severe pain, heaviness in the gastric region, hyperacidity, which with the hæmatemesis had led to the diagnosis of ulcer.

3. A woman, aged 35, had suffered for a year from cramp-like pains in the upper abdomen and a feeling of heaviness in the same region, radiating to the right side. Cholelithiasis or ulcer were diagnosed. Shortly afterwards severe hæmatemesis set in, and the patient recovered. Later a recurrence suggested operation, but before it could be performed she died from severe hæmatemesis. Necropsy revealed myeloid leukæmia: no ulcer in the stomach or bowel.

4. A man aged 43, had suffered for 3 years from severe colicky pains in the upper abdomen. Two years previously cholecystectomy had been performed but no stones were found. The patient became weaker, and lost weight, and later suffered from melæna and hyperacidity. X-rays suggested an ulcer of the duodenum. On operation no ulcer was found. The patient died 24 hours afterwards. Necropsy showed pernicious anæmia. The presence of hyperacidity was remarkable.

5. A man, aged 45, had suffered for two years from symptoms pointing to duodenal ulcer. Later there were numerous hæmatemeses. On operation nothing abnormal was found in the stomach or duodenum. Careful examination of the blood showed

essential thrombopenia. The spleen was treated by x-rays and a year after the blood was found normal and the patient recovered.—*Medical Review.*

Cysticercus of the Brain.—F. Schmitz (Med. Klin., p. 894).—Over 80 per cent. of all cases of cysticercus occur in the brain. A great number have no symptoms during life and the condition is only found by chance on necropsy. Unless the cysticercus has been found in the eyes, skin or muscles the diagnosis is only a probability, save in the few cases in which lumbar puncture or puncture of the brain has revealed it. A characteristic of the condition in some cases is absence of all symptoms at one time and severe pressure symptoms at another.

A child, aged 9, had suffered for 3 months from headache and vomiting, but on some days was quite well. For some weeks her sight had been bad and double vision was present. She lay in a more or less unconscious condition at one time, but at others all the symptoms disappeared. On examination the only symptoms consisted of bilateral paralysis of the abductors and marked choked disc. There was no eosinophilia. To improve the vision palliative trephining was performed. On the upper surface of the brain three small cysts were seen and opened and were found to contain cysticerci. The child was much improved.—*Medical Review.*

Diagnosis of a Tuberculous Kidney.—The most deceptive feature is the complete absence of pain in either kidney until the later stages of the disease. It is difficult to realize that one of the kidneys may be eaten up with tuberculosis although there has been no complaint of pain in that kidney. Not until disease has been present for a year or two may one of the kidneys become painful and ache. Yet the painful aching kidney may be the healthy hypertrophied one. The healthy kidney may ache because it is heavy, having increased to double its size, and because it is doing double the work. It is often difficult to persuade the practitioner and the patient that the aching kidney may be the healthy kidney.

Occasionally there is true renal colic on the side of the diseased kidney, set up by the passage of cheesy material down the ureter. Nevertheless, renal pain is usually absent, and the only common and characteristic pain is that experienced at

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Annual Report of the Chief Medical Officer of the Ministry of Health for the year 1924, p. 115

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the neck of the bladder or in the end of the penis at the finish of micturition. Accompanying this pain is the most constant symptom of all, greatly increased frequency of micturition. This increases continuously and is not usually marked by intermittence over periods of weeks or months, as is the case with increased frequency set up by other forms of chronic infections of the kidney and bladder.—FRANK KIDD in *The Practitioner*.

The Painful Shoulder—J. Morley Hitzrot in *Minnesota Medicine* (March, 1928) discusses pathology and treatment of pain in the shoulder. Pathological causes may be traumatic (dislocation, fracture, arthritic changes of acromioclavicular joint; fracture of scapula, humerus; dislocation; synovitis and arthritis of shoulder joint; injury of supra-spinatus tendon, of long head of biceps, of teres major, of attachment of the latissimus; injury to brachial plexus; subdeltoid or other bursa) due to infection of bones, joints, tendon sheath soft parts or bursae, due to cervicobrachial neuritis or new growth. For diagnosis nothing equals a satisfactory x-ray picture. He takes up in detail those cases classed as periarthritis, subdeltoid bursitis and subacromial bursitis, and pathological conditions in the supra-spinatus tendon. The essential feature for which relief is sought is a stiff and painful shoulder, although the variations in pain and disability may be considerable. The lesion most commonly found is adhesive subdeltoid bursitis. Tuberculous infection is rare. Another lesion frequently demonstrated is a deposit of lime in the supraspinatus tendon, rarely in the infraspinatus one. Histopathology of the tendon varies with the lesion.

Examination: There is atrophy of deltoid and supra-scapular region with flattening of the shoulder and prominence of the head of the humerus. Points of tenderness are occasionally present and acute pain on pressure over the greater tuberosity is significant when present. **Treatment:** For this purpose the author separates such cases into:

1. Those with deposits in the tendon as shown by the x-ray.
2. Those with no deposits.

In the cases with deposits in the tendon we have the acute cases with severe pain, rapid atrophy of the deltoid and complete disability. For these complete rest, preferably in bed, a sedative, morphine, if necessary, and hot moist applications locally, give the most relief. As a rule the acute symptoms

subside in from three to seven days. In his experience dry heat, diathermy and massage increase the pain without benefiting the patient otherwise and are not indicated. Operation may be indicated (vide infra).

In a large majority of cases the acute symptoms subside and recovery is gradual aided by heat, massage and exercises and the gradual abduction method suggested by Brickner. In some the pain becomes of the chronic type.

In the chronic cases with deposits, abduction, massage and exercises usually give relief. When recurring attacks occur, especially with increase in the deposit in the tendon, operation is indicated and possible sources of infection should be carefully sought.

Operation.—Opinions as to operation vary. In Hitzrot's experience operation gives relief more quickly than any other form of therapy, especially in the acute cases with a large deposit. Just when to operate is a question, but the relief obtained after the release of the broken-down material by operation and the rapid return of function is striking.

Medication.—Except for morphin and codein very few drugs help. Occasionally atophan, cinchophen, tolysin given in seven and one-half grain doses every four hours gives some relief.—V. C. S.

Nerve Injuries Complicating Fractures.—The nerve most frequently injured in fractures, says R. W. Billington in *Southern Medicine and Surgery* (February, 1928) is the musculospiral in fracture of the humerus. However other bones from the scapula to the fingers and the pelvis to the toes with any or all of the neighboring nerves may be subject to such associated traumatism. Therefore an immediate examination for motor and sensory disturbance in the distribution of the extremity distal to the fracture is important. It is important to know whether paralysis was present immediately after the injury or later. The determination of motor and sensory loss and of returning function requires considerable knowledge and experience. Every muscle supplied by the suspected nerve should be carefully tested for response to voluntary effort and if this be absent, to faradic and galvanic current. If the reaction of degeneration fails to show within three weeks on, may wait longer for it or for returning function, but if it does

appear, which is usually ten to twenty days after injury, an exploratory operation should be considered immediately. The early signs of nerve regeneration are formication, shrinkage of areas of anesthesia from proximal towards distal portions of the limb, return of deep sensibility to pressure and of muscle tone and sensibility. The author believes that one should not wait longer than three weeks or so to explore the nerve, unless there is a compound fracture or if the skin shows abrasions or infection. In such cases one should wait a month or longer after complete healing of the soft tissues. Unfortunately 25 to 50 per cent. of all nerve injuries including a considerable proportion of those treated under the most favourable conditions fail to make a satisfactory recovery. The author reaches the following conclusions:

1. In all fractures an early examination for nerve injury should be made.
2. If evidence of a nerve injury is found, a thorough neurological examination of it should be made at once and repeated every few days to determine its extent and progress.
3. If at the end of three weeks there is total loss of motor and sensory function and the muscles show the reaction of degeneration, the nerve should be explored without further delay in most cases.
4. Proper mechanical and physical therapy should be employed from first to last.
5. Even when partial or complete failure of nerve regeneration occurs, function may be often improved or restored by skillful use of orthopedic operations and appliances.—V. C. S.—
I. J. M. S.

MEDICINE

Faucial Ulcers in Typhoid Fever.—J. Chalier and M. Levrat (*Presse Medicale* p. 929) since Bouveret in 1876 published a case of ulceration of the anterior pillar of the fauces in typhoid fever many writers have studied the frequency and diagnostic value of this sign. But only in 1908 did Trouillieur establish a relation between the ulcerations and the gravity of the attack. The writers have made observations on 605 cases of typhoid fever in which 83 showed ulceration of the pillars of the fauces. They usually occurred on the anterior surface of the anterior pillars and were frequently bilateral. They are

oval with the long axis parallel to that of the pillar. In length they range from some mm. to 1 or 2 cm. their margins are well-marked; the base is not hollowed out but flat and almost level with the surrounding mucous membrane and is whitish-grey or a little yellow. The appearance is so characteristic that once seen no mistake is possible. They are painless and if not looked for systematically will be overlooked. They do not produce glandular enlargement. The ulcer is covered with microbes but neither the typhoid bacillus nor Vincent's bacillus is found.

The time of appearance of the ulcers is variable; it is most often the second week, at the same time as the rose spots. Their duration is also variable—usually one to two weeks. They do not leave scars or cause local troubles.

Their diagnostic value is great. The writers have never seen typical ulcers apart from typhoid fever. In cases of doubtful rose spots they regard them as of absolute diagnostic value. But they may occur in paratyphoid fever.

The ulcers have a prognostic value. The mortality of the cases in which they occurred was 18 per cent. against 14·3 in other cases. The percentages of hæmorrhage and perforation were 21·6 and 7·23 respectively against 10·7 and 0·76. Nearly two-thirds of the perforations occurred in cases of ulceration of the fauces, although the latter amounted to only 13·7 per cent of the total. Other serious complications—myocarditis pulmonary, cholecystitis—were also more common. One or more serious complication occurred in 42 per cent. of the cases of faucial ulcers.—*Medical Review.*

Concerning Digitalis in Pneumonia.—In an article on "Digitalis in Pneumonia," by Drs Walter S. Burrage and Paul D. White, Boston, in the August 1927 issue of the *American Journal of the Medical Sciences*, No. 2, vol: clxxiv, p 260, they summarize their critical study as follows:

SUMMARY AND CONCLUSIONS. 1. In a group of 221 unselected cases of lobar pneumonia in adults, approximately one half received digitalis medication in varying amounts, the other half, none at all. Those who received digitalis showed a mortality two and a half times that of those who received none.

2. The patients receiving digitalis were divided into those who were digitalized and those who were not. The digitalized patients showed a mortality only five-eighths as high as those who were given no digitalis medication whatever,

Those receiving non-digitalizing doses showed a mortality three and a half times as high as those without any digitalis.

3. In the undigitalized group digitalis was administered unsystematically in many instances, being used as a last resort in about one-half of the cases at a time when they were very seriously ill.

4. In the groups here considered, among which the percentages of complications and danger list patients is very similar, the lowest percentage of mortality was found in those patients who were digitalized, and next in those who received no digitalis.

5. The definitely higher mortality among those cases receiving non-digitalizing doses should discourage this type of administration. If the drug is to be used, full digitalization should be accomplished.

6. It appears that the systematic administration of digitalis in digitalizing doses may have been of benefit in this series of cases.

7. No untoward effects from a toxic action of digitalis in the present series of cases were observed.

8. Larger series more carefully controlled than heretofore as to age, severity both of epidemic and of individual illness, complications, and amount of digitalis given, must be assembled before conclusive evidence can be obtained as to the value of digitalis in pneumonia. The data presented here, as in the case of Stone's series, do suggest that digitalis is of value in pneumonia when given in sufficient dosage; the cases, however, are inadequate in number to prove the matter.—*L.I.M.J.* Oct. 28—V.C.S.

Liver L. for Pernicious Anæmia.—In a note in the *Lancet*, Major-General C. E. Pollock, M.R.C.S., late A.M.S. gives some useful hints on the cooking of liver for the treatment of pernicious anæmia. Liver as usually cooked, as he points out, soon palls and the patient does not relish the prospect of having to eat the same preparation of liver four or five times a week.

When cooking liver the following general rules should be observed:—

(a) Fresh ox liver is more effective than calf liver.

(b) The cooking should be short, and the temperature should be kept as low as possible—just sufficient to make the liver seem to have been cooked.

(c) No more fat should be used than is actually necessary for each dish.

(d) Grilling makes the liver tough.

(e) Only a little salt should be used in the cooking; more can be added when it is eaten.

(f) Any sweet flavouring, such as chutney, should be used sparingly.

SOME RECIPES

Liver Sandwiches.—The following has been successfully used by friends for a child. Put the raw liver through a mincer and remove any fibrous parts. Spread the minced liver on thinly cut slices of bread and butter, or a piece of toast which has been split in two. In either case use little or no butter. Add pepper and salt according to taste, sprinkle it freely with fresh lemon juice, and a trace of grated onion. A few dabs of Bovril, or a thin layer of grated cooked ham improves the flavour. Finely chopped pickles may be used in place of ham.

Fried Liver.—Cut the liver into rather thin slices. Put a small quantity of butter, margarine, or a slice of not very fat bacon into the frying-pan and heat to low frying temperature. Cook gently for five to ten minutes to suit the individual's taste.

Dry Curry.—Slice the liver as above. Put into the frying-pan a little butter and a dessert spoonful of chutney with a squeeze of lemon juice. Heat this while stirring it to a low frying temperature. Roll the slices of liver in dry curry powder and place them in the pan. Cook gently for five to ten minutes.

Liver Purees.—(a) Prepare a white sauce. Stir in 6 oz. of grated raw carrot, if it is coarse, if young carrots are obtainable, the same quantity finely chopped. Boil gently for a few minutes. Stir in the minced raw liver and let it stand for three minutes on the warm top of the stove, away from the flame.

(b) Prepare a brown gravy, using as little fatty substance as possible. Bring this to the boil, then move the pan away from the flame, and stir in the minced raw liver. Let it stand for three to five minutes. Green peas or finely sliced young carrots improve the flavour. Serve on toast.

(c) Prepare a breakfast cupful of Bovril or Marmite. Bring it to the boil, stir in the minced liver, and let it stand for a couple of minutes on the top of the hot stove. This is very useful when the liver is required at short notice.

Liver Soups.—Prepare a breakfast-cupful of any of the following soups: tomato, veal broth, chicken, or rabbit broth. Many others, such as potato soup, game soup, milk and celery soup; make a pleasant variation. Bring the soup up to the boil. Take the pan off the fire, stir in the minced raw liver, and let it stand for a few minutes.

Minced Liver on Toast.—Prepare a tasty gravy flavoured with a sauce such as A. I. or Harvey's. Chop the liver and cook gently in the gravy for three minutes, spread it on the toast and serve hot.

Liver and Eggs.—Minced raw liver may be beaten up with milk and eggs and served as scrambled eggs. An omelette may be filled with minced liver cooked slightly in a tasty gravy.

Liver Roll.—Mince together 12 oz. of liver, 6 oz. of beef (preferably steak) and 6 oz. of rather lean bacon. Add a trace of finely chopped onion. Mix a teacupful of breadcrumbs with the minced liver and bacon. Beat up one egg and stir it into the liver mixture, flavouring the whole with a little tomato sauce. Wrap it in grease-proof paper, and cook in a steamer from one to one and a half hours. Let it get cold and eat it as a sandwich, or in place of cold meat. This is a useful preparation when travelling.

Risotta.—Boil some rice in the ordinary way. Cut the liver into dice of about half an inch, and cook in a savoury sauce, tomato for preference. Place the cooked rice in a hot dish, making a hollow in the middle. Put the liver into this. If preferred, the liver may be sprinkled with lemon juice and lightly fried. In this case a well-flavoured sauce should be served to pour over the rice. Cooked macaroni may be used in place of rice.

Stuffed Potatoes.—Bake or boil two large potatoes in their skins. When cooked cut off the upper third. Scoop out one-third of the potato. Into the space thus formed put minced liver previously cooked in brown gravy and well seasoned with ketchup and lemon juice. Mash the removed potato, and use some of it to form a cap to the liver. Place a thin slice of bacon over the top, and put them into a hot oven for three minutes.

Chicken and Liver Fricassee.—Minced liver mixes well with chicken fricassee prepared in the ordinary way.

Toad-in-the-Hole.—Liver may be used in this dish in place of beef. When making the batter stir in a teaspoonful of ketchup. Cold cooked liver and potato salad made with mayonnaise is excellent for an occasional change, but contains too much oil to be used frequently.

With experience other recipes will suggest themselves to the interested cook, and the anæmic brother will bless her ingenuity.—*Indian Druggist*, Nov. '28.

The Treatment of Prussic Acid Poisoning.—K. Feyerbend has found that large doses of sodium thiosulphate injected intravenously are successful in saving the lives of patients who are already moribund from Prussic Acid poisoning. An illustrative case is given of a patient who, having taken a poison containing 85 per cent. of hydrocyanic acid, was, at the end of a quarter of an hour, pulseless, cyanotic, with inactive pupils, and hardly perceptible breathing; 1 gram of sodium thiosulphate was injected intravenously. After a couple of minutes normal breathing was restored, the pulse reappeared, and consciousness returned. Half an hour later the patient was able to return home, and two days afterwards was reported to be in perfect health. So rapid a result, Dr. Feyerbend thinks, can only be explained by a chemical reaction which is proportional to the amount of thiosulphate given. For this reason, the small amounts from 0.1 to 0.2 grm recommended in the text books are quite useless, it being necessary to give at least 1 gram to ensure satisfactory results.—*Practitioner*, October 1928.

OBSTETRICS AND GYNÆCOLOGY.

The Treatment of Eclampsia.—Henry Jellett, formerly Master Rotunda Hospital, Dublin (*New Zealand Med. Journ.*, p. 66) quotes with approval the report published recently under the auspices of the Medical Research Council of Great Britain on the toxæmias of pregnancy, based on the investigations of the Research Department of the Glasgow Royal Maternity and Women's Hospital by J. N. Cruickshank, J. Hewitt and K. L. Couper. Two hundred cases of toxæmia were dealt with. They were divided into four groups, as follows:—

Group 1—Albuminuria without or with few toxic symptoms	... 55 cases
--	--------------

Group 2—Pre-eclamptic toxæmia	... 34 cases
Group 3—Nephritic toxæmia	... 42 cases
Group 4—Eclampsia	... 69 cases

"The method adopted was practically uniform throughout and in the case of the albuminuric, toxæmic, and nephritic groups (Groups 1, 2 & 3) was almost identical. The main points in this routine treatment were: (1) The withholding of all food (including milk) until the amount of albumen was less than 0.1 per cent. As, however, the Esbach reading fell slowly in the nephritic patients, it was frequently necessary to allow light diet before this stage. (2) Thorough evacuation of the colon; frequent loose stools were secured by adequate doses of magnesium sulphate and jalap. (3) Stimulation of moderate diaphoresis by means of warm clothing, hot bottles, and the electric cage, if need be. The patient was allowed to drink as much as she wished, but no attempt was made to obtain an excessive fluid intake. As soon as the urine contained less than 0.1 per cent. of albumen light diet was begun.

"In the eclamptic cases a specially-heated bed was used. The bowel was emptied by a soap-and-water enema, but gastric lavage was not practised unless the patient was vomiting severely. Small rectal salines were given until the patient began to take a reasonable quantity of fluid by mouth. In a few of the non-œdematous cases early in the series subcutaneous saline transfusion was employed, but we soon discontinued this practice, and we do not propose to return to it. When the fits were numerous or severe, veratrine ($\frac{1}{2}$ c.cm.) was given, provided the systolic blood-pressure was at least 160 mm. Hg., and the pulse-rate 120. If these conditions were not fulfilled, morphia (gr. $\frac{1}{4}$) was substituted. Milder fits were controlled by chloral hydrate and potassium bromide. Labour was terminated by forceps if fits continued into the second stage, but *accouchement force* and Cæsarian section were never performed. In the earlier part of the series labour was induced in some cases of the ante-partum type, but more recently we have abandoned this procedure. After the acute stage eclamptics were treated in the same manner as the other groups.

"In the first half of the series diuretic drugs were used in all cases; in the second half no such drugs were employed. No difference in results was noted.

"There were no fatal cases in the albuminuric group (55 cases), Group 1. One, a typical toxæmic patient, died (34

cases) Group 2. Of the 42 cases of the nephritic group, Group 3, six died. The number of fatal cases in the eclamptic group (69 cases), Group 4, was six. Of these, three died in the acute stage, one died of pulmonary embolus when about to be dismissed, and one of sepsis on her seventeenth day. The remaining case recovered from an attack of ante-partum eclampsia, but her systolic blood-pressure remained high, as did the amount of albumen in the urine. She refused induction for about three weeks, and when induced at last she took intra-partum convulsions and died.

"This maternal death-rate compares favourably with that of 22.4 per cent. reported by one of us (J. N. C.) as occurring in a series of 814 cases of eclampsia treated in the hospital by a variety of methods.

"It is worthy of note that, judged by the standard of the Eclampsia Committee, 75 per cent. of our eclamptics were of the severe type."

There are still a number of practitioners who adopt *accouchement force* in eclampsia, in spite of the fact that it has been condemned for years by every obstetrician of experience. There are a larger number who adopt Cæsarian section when there is no special indication for it, in spite of the increased mortality which attends the operation.—*Medical Review*.

The Prognosis of Appendicitis during Pregnancy.—Pankow (Archiv für Gynakologie p. 874) explains the greater mortality of appendicitis in association with pregnancy (25 per cent as against 6 to 12 per cent in non-pregnant subjects in 486 cases) as being due partly to the fact that in physiological conditions pregnancy is accompanied by a rise of the cæcum and appendix from its normal position. Abscess formation during pregnancy accordingly leads more often to communication with the general peritoneal cavity, and less often to communication with the pelvis. Pankow has furnished fresh proofs of this rise in the position of the cæcum by a series of radiograms taken from the third month of pregnancy onwards and also during the puerperium. Another reason for the unfavourable prognosis of appendicitis during pregnancy is the greater difficulty of diagnosis. Since pain is expected by the woman when near term, the doctor is summoned late for appendicitis occurring then.

The differential diagnosis from pyelitis gravidarum may also be difficult, and examination of the urine may not be conclusive, as a secondary *B. coli* infection of the right renal pelvis is not uncommon in acute appendicitis. Catheterisation of both ureters is helpful.

According to Schmidt abortion follows in 12 per cent. of operations for acute appendicitis, and 25 per cent. of cases treated expectantly. It is important to operate within the first 48 hours. Abscess in the pouch of Douglas may be opened by the vagina, or by the rectum when the patient is near term. When seen after the 48th hour expectant treatment is very dangerous. Interruption of pregnancy in acute appendicitis is not justifiable in the early months, provided that there exists no direct communication between the abscess and the uterus, but when the uterus or adnexa form part of the abscess wall or are adherent to bowel or omentum bounding the abscess operative termination of pregnancy is justified. After evacuation of the abscess, operation table and instruments are changed, and the uterus is emptied *per vaginam* after hysterotomy. The abdomen is now reopened and inspection reveals whether adhesions have ruptured or delimitation of the abscess from the general peritoneal cavity has been interfered with by shrinkage of the uterus.—*Medical Review*.

Treatment of Gonorrhoeal Vulvo-Vaginitis in Children.—L. Löwenstein (Medical Welt. 1928, p. 366) recommends the following treatment. In the acute stage the child should be kept in bed. Perigenital eczema is usually present and is best treated by 1 per cent. solution of resorcin or $\frac{1}{2}$ -per cent. boric acid. Once or twice a day should be given a warm sitz bath containing 1-4000 permanganate solution of potash or zinc sulphate (enough to cover the tip of a knife to a litre of water). Slight purgation is advisable. In order to avoid auto-intoxication the child should wear closed pyjamas in bed. Personal cleanliness is essential and all the usual objects employed, as thermometer, handkerchiefs, etc., should be carefully disinfected and kept for the child's use. The urethra is best treated by injections of solutions of silver nitrate and the vulva and vagina by chloride of zinc or permanganate of potash solutions. After the secretion is free from gonococci 0.2-0.5 per cent. of zinc is used. If the rectum be affected it should be washed out with 1 in 4-5000 solution of silver nitrate, or chloride of zinc or permanganate of potash and immediately afterwards an intrarectal injection of warm 5 per cent. protargol should be given. Intensive treatment should be carried out for 4-5 months and the child kept under observation for another 3-6 months.

NOTICE

"CURE FOR LEPROSY"

ESTHONIAN DOCTOR'S PREPARATION

(SPECIAL CABLE), *Riga, October, 18.*

"Four lepers have been released from the Estonian Leper Asylum on the island of Oesel as completely cured. They were treated with a gold preparation called "Solganal" prepared by Dr. Feldt of Riga who has been experimenting with it since 1914, and who is now working in the Koch Institute for infectious diseases at Berlin."

"Solganal" can be had of Messrs Schering-Kahbaum (India) Ltd., 4, Dalhousie Square, Calcutta.

ERRATUM.

In July Number, Vol. XXV, No. 7. Antiseptic 1928. Page 417, last paragraph first line read, 'that Sprue is *not* so common'—instead of 'that Sprue is so common'—*Ed. A.*

CORRESPONDENCE.

COBRA EGGS.

TO THE EDITORS, 'The Antiseptic', MADRAS.

DEAR SIR,

What is described as "Cobra Eggs" in the May number of the Antiseptic by Dr. B. N. Mehta, is more popularly known as "Pharaoh's Serpent", so called from the serpentine form of the copious ash yielded by it when burned. It is sold in little cones, each weighing about 3 or 4 grains, as a toy, in order to make money out of this peculiar property of the substance.

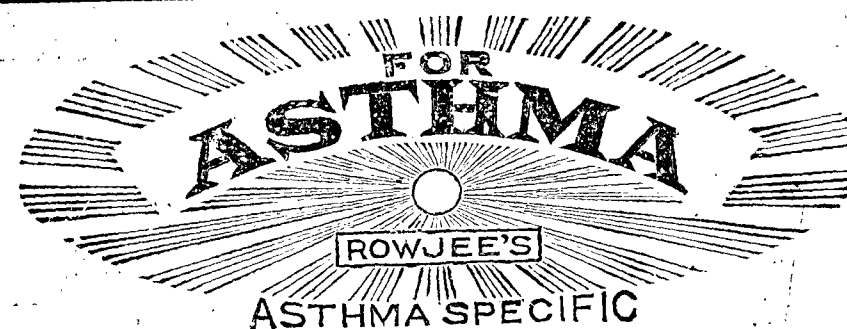
Chemically it is Sulphocyanide of Mercury, Hg. (SCN) 2, more correctly Mercuric Thiocyanate. Hence it is a metallic irritant poison allied to corrosive sublimate in its action.

Acute poisoning by this is very rare in Bengal, and death has not been known to take place. The symptoms observed are:—

- (1) Burning pain in mouth, throat and stomach.
- (2) Vomiting and retching.
- (3) Sleepiness and coma.
- (4) Weakness and prostration.
- (5) Dysuria.

The treatment would be—

- (i) *Elimination*:—Free vomiting, encouraged by copious draughts of warm water; in some cases emetics or the stomach pump may be required.



AN INSTANTANEOUS RELIEVER OF ASTHMATIC ATTACKS

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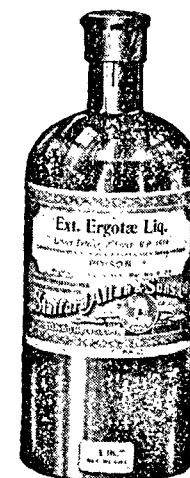
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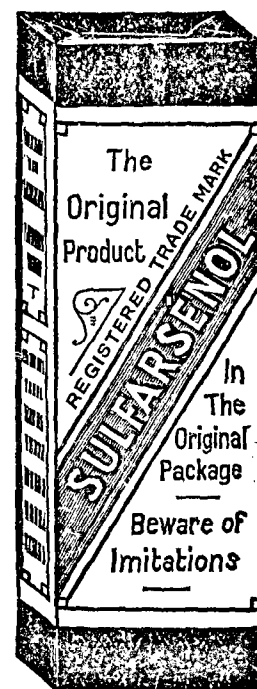
So cleverly did a gang of fraudulent patent medicine vendors make up and sell quantities of faked medicines to chemists in Paris and elsewhere in France that the proprietors of the patent medicines themselves when asked by the police were unable to distinguish their own products from the faked ones. The bottles, labels, printing and wrappings were all exactly imitated. Large shipments were made to Cuba and Mexico by deluded purchasers of the counterfeit medicines. Several arrests have been made but the police do not yet believe that they have caught all the men involved in the fraud which has cost reputable houses many thousands of pounds.

One of the cheated chemists with the connivance of the police set up a temporary export bureau and gave an order to the suspected persons. They duly delivered the falsified goods only to find themselves on arrival in the hands of the police.—British United Press.

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THE ANTISEPTIC.

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- (ii) *Prevention of action*:—Albumen is an antidote. White of egg may be given with milk or other albuminous fluids.
- (iii) *Counter action*:—(a) Demulcents, (b) Stimulants may be given to counteract depression.

Yours truly,
R. K. Bhattacharyya,

II

TO THE EDITORS, THE "Antiseptic" MADRAS.

DEAR SIRs,

In the May issue of your publication there appeared an article by Dr. Balakrishna N. Mehta, M. B. B. S., Jeevansingji Dispensary, Bhavnagar, regarding the above. The writer of the article asked for information as to the chemical composition of these "Cobra Eggs".

We submitted samples of these "Cobra Eggs" to Messrs. F. Hoffmann-La Roche & Co. Ltd., Chemical Works, Basle (Switzerland), the well-known manufacturers of fine chemicals, pharmaceutical products and alkaloids 'Roche' brand, who have been kind enough to send us a report as to their chemical composition. This report we give you on the attached sheet and we should feel obliged if you would be good enough to give publicity to the same in the next issue of "The Antiseptic" as we feel sure it is of considerable interest to the medical profession in this country.

Thanking you in anticipation,

We are Dear Sirs,

Yours faithfully,

Per pro. VOLKART BROTHERS.

(Sd.) Illegible, Agents.

Extract from a report received from Messrs. F. Hoffmann-La Roche & Co. Ltd., Basle (Switzerland).

We beg to inform you that the samples of "Cobra Eggs" or "Boa Eggs" submitted by you contain as chief ingredient Quick-silver Rhodanide $\text{Hg}(\text{SCN})_2$. These "Boa Eggs" are therefore apparently identical with the fireworks which are used in our regions under the denomination "Pharao snakes".

We find the following data:

Ullmann.—Encyclopædia of technical chemistry, Vol. 5 page 517.—

"Pharao snakes" and "Volcanos" belong also to the room fireworks. These are cylindrical or conical staniel-cartridges filled with Quicksilver-Rhodanide, which after being lighted

drive forth grey, snake-formed puffed-up ashes. As when burning Rhodan-Quicksilver amongst other things Quicksilver and Bisulphite of Carbon are formed, these articles must be handled with the utmost care to avoid injury to health. Similar snake-formed ashes are produced by cartridges manufactured by a mixture of 50 parts Sugar with 30 parts Caliumchromate and 10 parts Caliumsaltpetre, which are mixed with Perubalsam to form a tough paste, and likewise wrapped in Staniol.

The Sugar which is not fully burnt due to the presence of Chromat-Nitrate Oxygen produces a very voluminous coal, which is still further puffed up by the gaseous combustion products.

The irritative and poisonous effect of the product is therefore explained by its composition. The above warning is therefore fully justified, the more so as this dangerous toy can easily be replaced by harmless mixtures.

"A CASE FOR DIAGNOSIS"

I

TO THE EDITORS, "*The Antiseptic*" MADRAS.

DEAR SIRS,

In the August issue of *The Antiseptic* a Case for Diagnosis by Hardeep Singh Verma, L. M. P., has been published.

The examination of the patient ought to be more complete. The blood pressure is an important factor which is not noticed by the doctor. Secondly, in an aged man of 65, the condition of the arteries ought to be noted. Thirdly, the condition of the reflexes ought not to be lost sight of. The knee jerk and the Kernig's sign are two important factors which will give us an idea of the condition of the upper motor neuron. Fourthly, the urine is not examined.

The whole case looks to be one of cerebral meningeal haemorrhage.

I request you to refer to Talors Medicine, 13th edition, Page, 828.

The pain irregular. Pyrexia stiffness of muscles denote cerebral irritation.

If you concur with my probable diagnosis, kindly publish in the *Antiseptic*. If otherwise, you need not but I shall be glad if you give further information on the subject.

Yours sincerely,

T. S. RAMANY.

II

TO THE EDITORS, "*The Antiseptic*," MADRAS.

DEAR SIRS,

With reference to the article, "A Case for Diagnosis" by Hardeep Singh Verma I think that appeared in your August issue, that it is difficult to give a definite diagnosis of the case from the *Symptomatology alone* described in the journal. The possibilities are:—(1) Thermic fever or Heat Stroke (2) Malignant Malaria.

The patient had probably granular kidney or was perhaps an alcoholic which might account for the condition resembling a "Typhoid State".

The general muscular pain as well as intense local joint and muscular pains on the left side were partly due to the strain of the long journey undertaken in the lorry in a certain awkward position. Malignant malaria can be excluded only by blood examination. A short previous history of the case might have thrown some light on clearing up the diagnosis.

Yours truly,
S. K. BASU.

A PLEA FOR BACTERIOLOGICAL EXAMINATION OF URINE P.U.O.

TO THE EDITORS, "*The Antiseptic*," MADRAS.

SIRS,

A note on "Fevers in B. Coli infection" by Dr. Adalja in your issue of April 1928 prompts me to send you the following:

Last year a colleague of mine here sent me a sample of urine for examination from a patient suffering from Pyrexia of unknown origin. The urine was perfectly clear to look at and it was markedly acidic. After centrifugalizing, a portion of the deposit was examined under the microscope. The field under the microscope was full of uric acid crystals and with the 1/6th" objective the field was seen to be swarming with motile organisms. This made me suspicious about the urine and therefore a specimen of aseptically collected urine was called for. This also showed the same sort of appearances as above. The organisms were seen to be motile by the "hanging drop" method and on making a film from the centrifugalized deposit were found to be gram negative bacilli. Their shape was also strongly suggestive of B. Coli. Culture on MacConkey's plate showed all the colonies to be those of lactose fermenters. Some of the colonies were picked up and subcultured on nutrient Agar Slopes. Characteristic growth developed after 24 hours' incubation at 37°C. which gave typical reactions of B. Coli developing acid and gas in lactose peptone water tinged with neutral red.

An autogenous vaccine was also prepared. The patient was treated for B. Coli infection and soon recovered.

The points to be emphasized are:—

1. Urine of every case of P. U. O. should be examined for B. Coli infection bacteriologically.

2. In bacilluria the urine may not necessarily be turbid as it often is, so that suspicion may not be roused by seeing the urine.

3. Urinary symptoms may be absent.

4. $\frac{1}{8}$ th" objective is sufficient to see the motile bacilli, if possible by "Hanging-drop" method, and a diagnosis may be based on this alone when no other bacteriological facilities exist.

Yours truly,

RAM DIAL KAPUR,

ACTION OF MORPHINE.

TO THE EDITORS, "*The Antiseptic*."

DEAR SIRs,

Reading about the note on the action of morphine in your esteemed journal, I want to bring the following experience of mine to the notice of your readers.

An able-bodied young fireman of a boat was reported to be extremely violent to the other members of his gang, one evening, for no apparent reason. When I went to see him he was fighting most viciously, and he was given $\frac{1}{4}$ grain of Morphine Sulp. hypodermically. That quietened him just for about 10 minutes, to enable us to strap him to his bed. At the end of that he was boisterous again and a second injection of the same quantity of Morphine sulph. was administered. He slept for two hours and gave no further trouble. But the following morning a generalised urticarial rash came out and persisted for 48 hours and gradually disappeared. At the time I did not connect that with the morphine injection, in a direct way.

My second case that roused my suspicion was like this.

Mr. P. aged about 50, who used to suffer from insomnia and was in the habit of taking big doses of Pot. Bromide had a mishap and had to be injected with morphia. He warned me that nothing short of $\frac{1}{2}$ a grain would do for him. To humour him I did take $\frac{1}{2}$ a grain but injected him with just a little more than $\frac{1}{4}$ of a grain.

Next day he told me that he had never had a more effective Morphia injection and added that with his usual dose of a $\frac{1}{4}$ grain which on 2 or 3 occasions had been given him before, he had got up with a sick feeling and there had been severe itchy sensations with a few wheals about, but more of these were noticeable with the last injection.

So morphia seems to have something to do with the symptoms.

Yours etc.,

J. M. GHOSH.

THE CAUSE OF SUDDEN DEATH FROM CENTRAL PLACENTA PRAEVIA.

TO THE EDITORS, "*The Antiseptic*."

SIRs,

The probable cause of death is Pulmonary Embolism.

I am now tempted to cite a similar case that proved fatal after a natural course of delivery.

I was called in to attend upon a lady—about 50 miles off—since she was reported to have retained placenta for about 6 hours after the delivery of the child.

Age—25. Nationality—Hindu, Multipara.

Previous History—History of Beri beri 1 year ago, but no cardiac trouble or oedema anywhere.

All previous labours normal—but tardy.

When I reached there at 10 P. M. the husband reported to us that placenta was delivered naturally and he was entirely satisfied with the condition. But he said that his wife was complaining of intense burning sensation all over the body and thirst since 2 P. M. The attending doctors had left her with an injection of morphine and a sleeping draught at about 6 P. M., thinking she was quite safe.

Observation of the case—Patient flabby. Resp—52? Pulse—imperceptible at wrist. Hands and feet—Cold. There was no P. P. H. The patient was semiconscious and complained to me that she could not see anything with her eyes and of intense thirst. Extreme anaemia. Tongue—cyanosed. Abdomen—normal. Heart—1st sound inaudible.

Her husband was not aware of the Fatal Peril—though he had seen her about 10 minutes ago. I gave her an injection of adrenalin, camphor in ether, strychnine, digitalin—but she passed off within 5 minutes after the injection.

The death is due to cardiac shock (Heart failure)—she having degenerated myocardium from avitaminosis (Beri beri). But pulmonary embolism may be argued as one of the causes. Was Morphine injection a factor in hastening her end?

Yours truly,

K. G. Banerjee.

BOOK REVIEWS.

MANUAL OF THE DISEASES OF THE EYE—FOR STUDENTS AND GENERAL PRACTITIONERS.

By Charles H. May M.D. Published by William Wood & Co., 51 Fifth Avenue, New York. 1927 Pp. 445 with 374 original illustrations including 23 plates with 73 coloured figures. Price.

The twelfth edition of this book has been completely revised, alterations and additions made wherever possible to make it up-to-date. In spite of several alterations and additions the volume has not increased in

size. All aspects of the diseases of the eye are considered and the more important diseases like 'Glaucoma' sufficiently explained. The chapter on refraction, though small, gives as much information as is usually given in longer texts. The text is fully illustrated and is bound to be useful to students in bringing that which the busy specialist is able to observe in his clinic. This work has certainly established to itself a standard that is second to none.—V.C.S.,

AIDS TO BIO-CHEMISTRY.

By Cooper and Nicholas. Published by Bailliere, Tindall & Cox, 7 and 8, Henrietta Street, Covent Garden, London. 1927, Pp. viii & 188 with eleven illustrations. Price 4/6 net.

The authors have achieved in making this handsome volume the object of presenting the general principles of Bio-chemistry to medical and science students, who have studied the subject by means of higher text books. This book is sure to be a suitable aid to all students before examinations as it is bound to give them a good revision.—V.C.S.

MOSQUITO SURVEYS.

By Malcom E. Macgregor. Published by Bailliere, Tindall & Co., 7 and 8 Henrietta Street, Covent Garden, London. 1927 Pp. 282 with 3 maps and 59 other illustrations. Price 15 net.

The author who is now the Entomologist, Welcome Field Laboratory is a very accomplished expert in the subject which he treats. Having done a thorough study of malaria in Mauritius and Rodriguez islands, the present volume is presented by the author with a view to provide ample information regarding the anatomy and bionomics of mosquitoes to persons associated with the anti-mosquito measures, who have not hitherto had an opportunity of acquiring an entomological knowledge. Though the book gives a complete study of various kinds of mosquitoes responsible for malaria in Mauritius and Rodriguez, yet the work is sure to guide the workers elsewhere to study the particular species of mosquitoes on correct entomological basis. On the whole the work is of an absorbing interest and it is bound to make a wide appeal to all those engaged in the anti-malarial and anti-mosquito campaign.—V.C.S.

THE THYROID GLAND.

By Charles H. Mayo and Henry W. Plummer. Published by the C. V. Mosby & Co., St Louis. 1926 Price \$ 1.75. Pp. 83.

This little book on the Thyroid Gland has been written after the authors' personal investigation, and observations made in the Mayo Clinic on a large number of thyroid cases assembled during a course of over thirty years. The book is made up in two parts. In the first part is given a short history of goiter, the anatomy and physiology of the thyroid gland together with the parathyroids. In the second part the function of the thyroid gland is fully discussed and a thorough classification of goiter is given. Hyperthyroid state is fully described with the various phenomena found during the course of the disease. The book gives all about

the Thyroid and para thyroid glands. This is a practical book, every chapter of which contains useful information for all those interested in the study of the Thyroids.—V.C.S.

AIDS TO OPHTHALMOLOGY.

By Bishop Harman, M. A., M.B., (Cantab), F. R. C. S. Edg. Published by Bailliere, Tindall & Co., 7 and 8 Henrietta Street, Covent Garden London. 1928 Pp. VIII X 236 with 112 illustrations. Price 3/6 net.

The seventh edition of this book contains some new chapters and much of the unimportant portions are omitted and completely revised. This small volume contains a good deal of information on ophthalmology given of course in a very concise form. The chapter on glaucoma is worth reading. The work is sure to be an admirable aid to all students appearing for examinations in ophthalmology to brush up what they have read in larger text books on ophthalmology.—V.C.S.

GLANDULAR THERAPY.

A series of articles prepared under the Auspices of the Council on Pharmacy and Chemistry of the American Medical Association. Published by American Medical Association, 535 North Dearborn Street, Chicago, Ills. 1927 Pp 98.

This small work on glandular therapy will give a very clear and concise general review of the subject which will be found useful to all general practitioners. The literature is up to the present time and summarised in a very short form. Each gland is taken separately and fully dealt with regarding the physiology, chemistry, pharmacology and therapeutic uses. Physicians interested in glandular therapy may find it very useful.—V.C.S.

SURGICAL "DONT'S" (AND "DO'S")

By Hamilton Whiteford, M.R.C.S., L.R.C.P. Published by Harrison and Sons, Ltd., 44-47 St. Martin's Lane, London W.C. 2 Second Edition, 1928, Pp. 68. Price Sh. 4.

In the present edition of this little book five more chapters have been added. This little book contains very many valuable words of wisdom based on well accepted surgical principles. As examples some of the "Dont's" may be mentioned.

"Dont employ probangs or bongies for a foreign body impacted in the oesophagus."

"Dont regard Caesarean section as a panacea for obstetrical difficulties"

"Dont "because some thing has to be done" perform an operation which cannot possibly relieve the patient."

The book may be confidently recommended to students and practitioners alike.—V.C.S.

THE EXAMINATION OF THE CENTRAL NERVOUS SYSTEM.

By Donald Core, M.D., F.R.C.P. (Lond.) Published by E.S. Livingstone 16 and 17, Teviot Place, Edinburgh, 1928, Pp 248. with 14 illustrations. Price 8/6 net.

The author in writing this little book has supplied the medical students in particular a greatly felt want. The book gives in detail all about the examination of patients for disease of the nervous system in a very clear, yet concise manner. The various tests are described methodically and illustrated wherever possible, so it is bound to be extremely useful to the beginner in directing him along proper lines in the study of the diseases of the nervous system. It is intended primarily for the junior medical students and to them it can be strongly recommended as a concise yet comprehensive volume.—V.C.S.

A SCHOOL COURSE IN HYGIENE.

By Robert A. Lyster, M.D., Ch. B., B.Sc. (Lond). D.P.H. County Medical Officer of Health, Hampshire. Published by D. B. Clive, University Tutorial Press, London. 1927. Pp. 234. Price 3/6 d.

In the seventh edition of this book more advanced portions have been eliminated to make it useful as a first course in Hygiene for Schools. Hygiene is dealt with side by side with human anatomy and physiology, which makes the subject more interesting to go through. Some practical work is suggested at the end of some chapters to illustrate the essential principles embodied in the text. The whole work is rendered more interesting for the school students by some of the very good diagrams and illustrations. We have no hesitation in recommending this volume as a suitable school course in Hygiene.—V.C.S.

CARE OF INFANTS IN INDIA.

Published by Messrs. Mears & Caldwell Ltd., Granmer Road, London, S. W.

This book is primarily intended for Anglo-Indian mothers who have to live and rear infants in an exceptionally hot and trying climate as that of India but there is no doubt that it will prove helpful also to Hindu ladies and the better educated classes generally. There is always some sort of superstition hanging round child rearing in every country and while the Indian mothers believe that all diseases are sent by angry gods powerful demons or evil spirits, an Anglo-Indian mother thinks that a child is playing with the fairies or is disturbed by dreams when it cries or smiles during sleep, little suspecting that its behaviour is the result of an overloaded stomach or disturbed digestion. To correct such erroneous ideas and put the mothers in the right track is the prime object of this book. Its unknown author has commenced rightly with a chapter on 'Before the Baby comes' and ended appropriately with the feeding of infants with mother's milk if that is obtainable or with its desirable substitute 'The Mellins Food' if mother's milk is unobtainable. A chapter on 'Mellins Food' for adults and invalids is also added proving its nourishing qualities and its efficiency as a well-balanced diet. The book deserves to be in the hands of every Anglo-Indian and Indian mother, anxious to have healthy and vigorous children.

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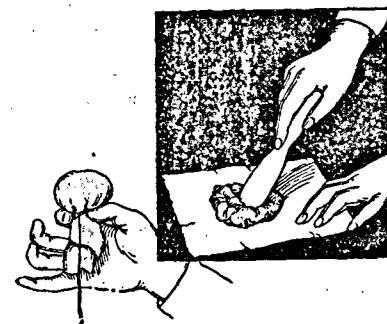
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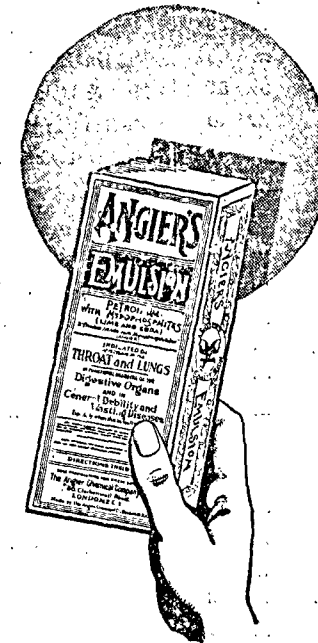
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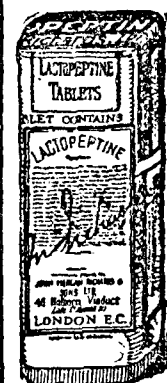
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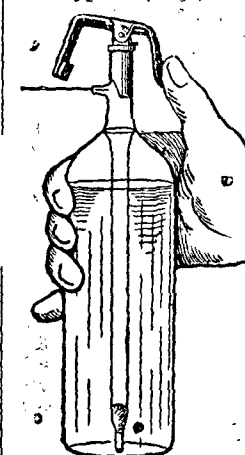
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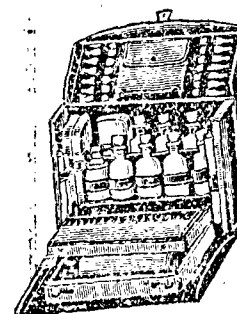
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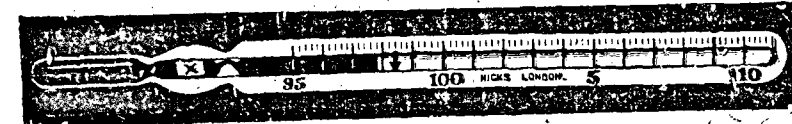
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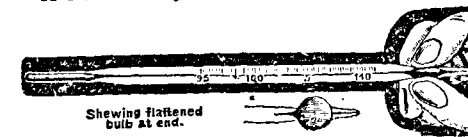
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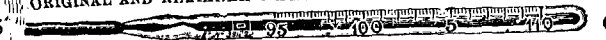
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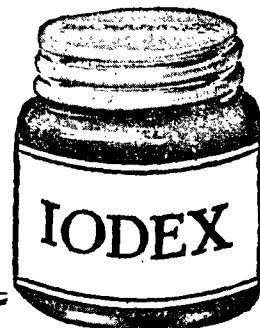
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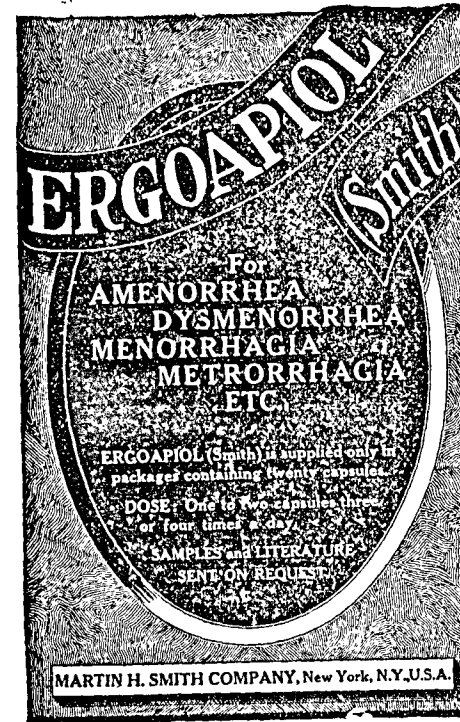
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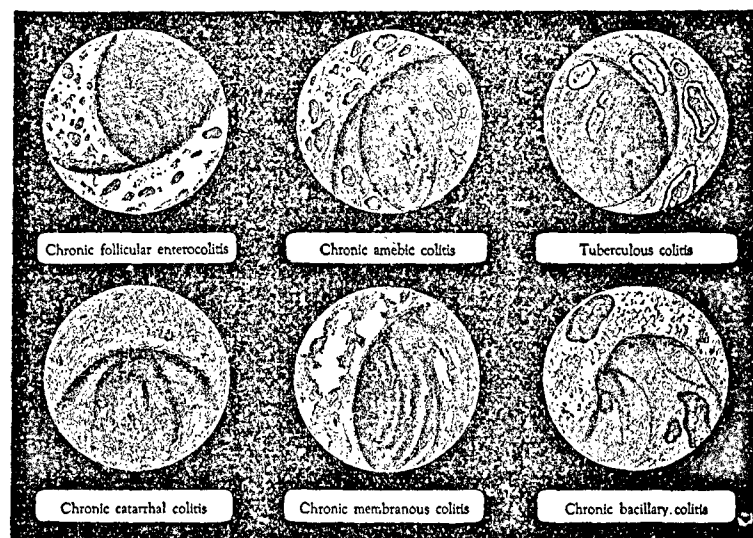
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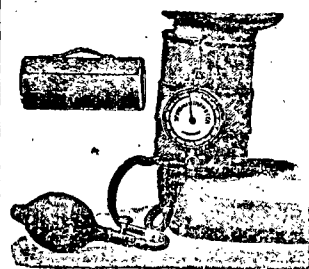
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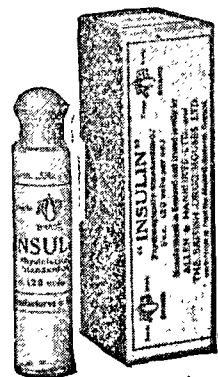
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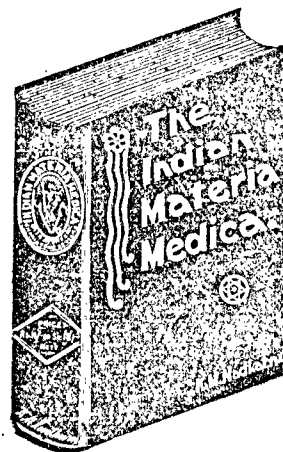
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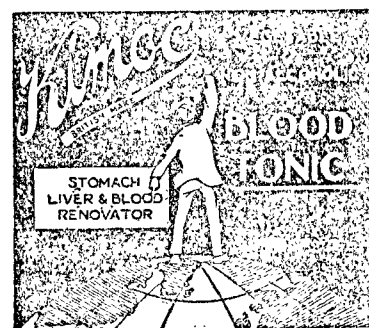
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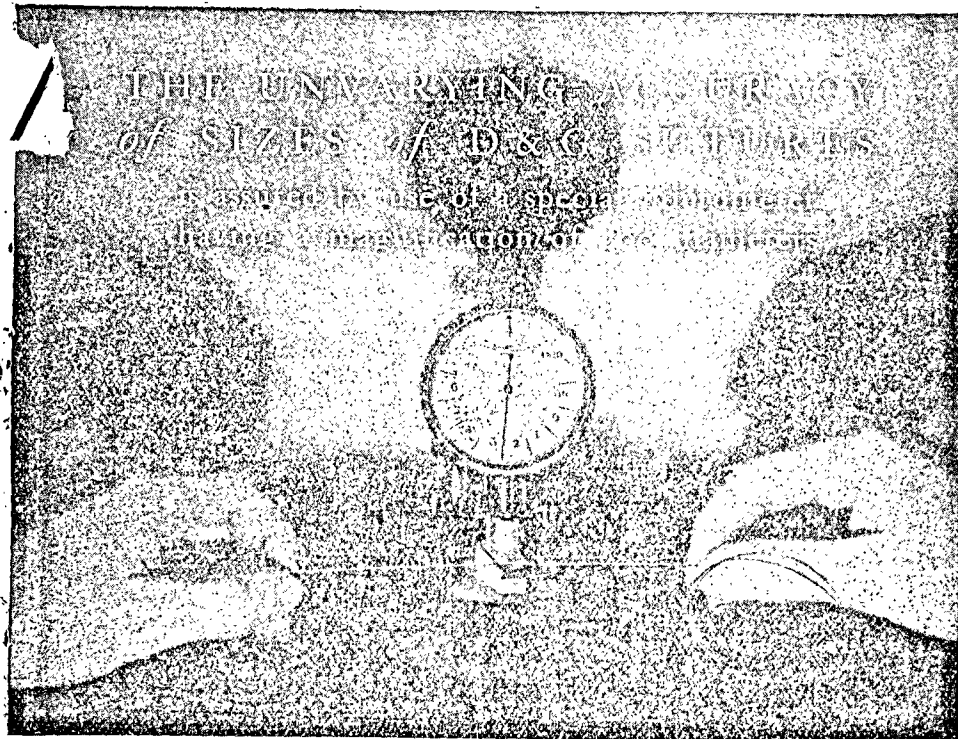
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Vol. XXV } DECEMBER, 1928. { ANNUAL
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ORIGINAL ARTICLES.

*DISORDERS COMMON DURING TEETHING PERIOD

BY

DR. KRISHNALAL VITHAL DAS ADALJA, M.B.B.S.

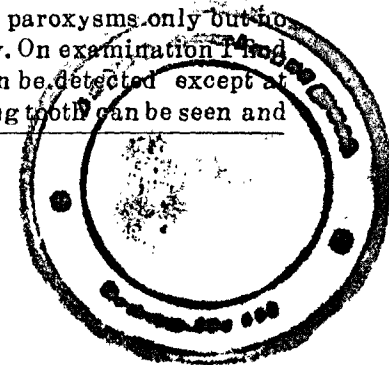
During my College days, I was taught by the Professor of Dentistry that under the garb of teething medical men hide a good deal of their ignorance and that teething, being a normal period of life, cannot interfere with child's health. During my practice in India (it was mainly hospital) I could not form any opinion as to the correctness of this view but coming over here as a private practitioner, I came across many cases which gave me sufficient material to test the above statement.

Being imbued with the above teaching, I disregarded the teething period as at all liable specially to any disorder. However this state of mind could not continue long as cases were not wanting where the only possible factor that could be detected on examination was teething and I had quite disagreeably to change my view.

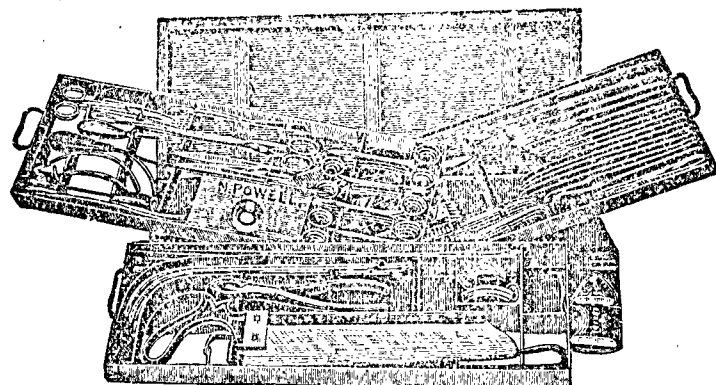
I find the following disorders quite common at this period:—

1. *Cough*.—Children are brought to me for this complaint many a time. Parents state that child is coughing day and night. At times I am told that the child coughs in paroxysms only but no inspiratory whoop or vomiting accompany. On examination the lungs quite clear, nowhere any wrong can be detected except at the swollen gum through which protruding tooth can be seen and

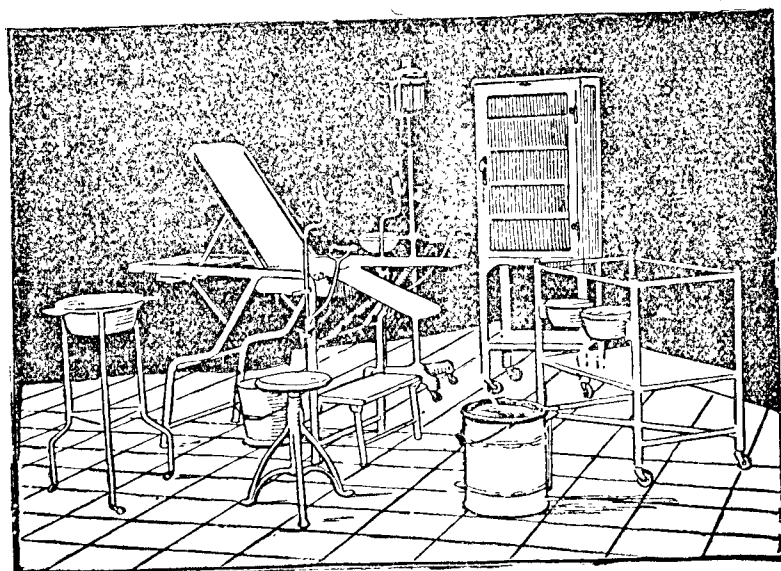
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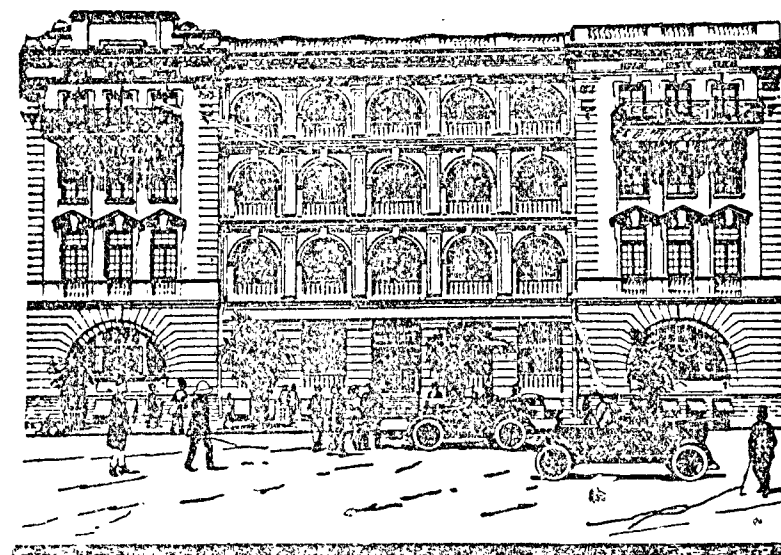
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felt. The child is generally of the age between six months and two years and likes to chew any hard substance.

This sort of cough, as I see from the result of my treatment, yields only to remedies directed to keeping the mouth clean. My rule is to give weak Condy's lotion to cleanse the gums after every feed. The mother is asked to cleanse the breast after taking the baby to it. The cough certainly lessens as a result of this and as soon as the tooth is out it disappears.

2. *Fever*.—This is less common than the above and varies in character with different cases; some have mere feverishness, some have irregular temp., some have daily rise of temp., and some have continuous fever lasting for a period that covers the time that a certain tooth takes to completely erupt out. I have carefully examined these cases and failed to find any cause but an erupting tooth. Lungs are clean, there is no urinary trouble and blood shows no parasite and does not yield to quinine. I specially remember two cases when temp. lasted about a month; nothing but a swollen gum through which a tooth could be felt, could be detected.

The treatment is directed to keeping the mouth and mother's breast clean together with cleansing the gum whenever necessary bring down the temp.

One thing in connection with this has struck me. It is this that in spite of high temp. these little patients are quite comfortable. I have noted this so frequently that I am inclined to take it as a point for differential diagnosis. I can't understand why this should be so.

Many a time, cough and fever combine. Lungs to start with appear clear. Either they remain so or soon positive sign of broncho-pneumonia sets in though this is rare. It may be that the broncho-pneumonia may be only a side by invasion by the gum which meets with depressed resistance owing to lowered vitality and gets an easy foot-hold.

3. *Diarrhoea* is another complaint for which patients seek advice. Generally the stools are loose and greenish or whitish in colour, the frequency being 6 to 8 times a day. The reduction of the diet together with attention to mouth and allervative powders soon control them:

Text books describe diarrhoea as one of the common complaints at the teething age, but I find it less common than the above two.

4. *Conjunctivitis* form rather comparatively rare disorder, in comparison with the above.

*MODERN TREATMENT OF SYPHILIS

BY

RAMESWARA PRASAD SAXENA, MEDICAL OFFICER,
PARTABGARH.

The venereal problem for want of adequate attention is becoming serious day by day. We see so many still-births, so many cases of congenital syphilis, and several adults ruined by untreated syphilis. The result is that heavy loss is caused to our countrymen by such diseases, e.g., syphilis, etc., which can be easily cured. The noble fight kept up by generations of investigators against this dreadful scourge by contributing fresh weapons to our armamentarium to combat this wretched disease constitutes a golden chapter in the history of experimental medicine. Though the treatment of syphilis has been marked by numerous changes of medicaments during recent years (chiefly from March 1905, the date of Schaudinn's discovery of the *Spirochæta pallida*) more especially as the result of experience in the Great European War, and though *per se* that subject looks so very easy and simple, 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 becomes to treat this dreadly scourge in its various disguises. Sufficient light has been thrown upon the subject at hand by various learned writers both of the West as well as of the East, hence I have nothing to add fresh which I can bring before the profession as new. It is with a view to refresh the memory of my learned readers that I venture to write down these few lines.

In olden days, before the Wassermann, when mercury was the only sheet-anchor of treatment in syphilis, the patient resigned himself to years if not a life-time of medication or, in many cases, did not resign himself with the result that most cases were labelled as 'uncured.' With the advent of Wassermann '606' the pendulum swung to the other extreme and it was expected that one treatment would cure. Modern treatment finds the true course between these two extremes.

*Specially contributed to "The Antiseptic".

The use of mercury in syphilis dates as far as we are informed from 2300 B. C., when it was used by Chinese both externally as a salve or ointment and internally in combination with some metals. The Europeans began using it from the end of the 15th century in crude form but it was not approved by the public as many cases of mercurialism occurred by its injudicious use. It was in 1865, when it was first administered hypodermically by George Lewin at the Royal Charity Hospital in Berlin.

Mercury in some form or other still remains the sheet-anchor in the treatment of syphilis, for the destruction of spirochaetæ. It remains the antiluctic specific and is administered usually in the following ways:—

1. *By the mouth*:—Liquor Hydrargyri Perchlor, dose $\frac{1}{2}$ 1 full dr. In tertiary syphilis, Pot. Iodide is combined with it. Periodide of mercury is formed and is kept in solution by the excess of Pot. Iodide. Grey powder gr. 1 or 2 or pill Hydrargyri gr. i. or ii. with opium gr. $\frac{1}{10}$ B. D. S. is perhaps the best means of administering the drug. In private practice a convenient way to give the drug is by means of a pill of Hydrargyri Iodide Viridi gr. $\frac{1}{2}$ to i with opii gr. $\frac{1}{4}$ — $\frac{1}{2}$ B. D. S. Sarasaparilla and Guaiacum when added to medicines containing mercury or Iodide, appear to increase their effect in some cases. I have been using mercury with the following combination with most gratifying results:—

<i>Re.</i> —Donovan's Solution	m. x.
Pot. Iodide	grs. v.
Liq. Anantamul et Sarasa co	dr. i
Syrup Simplex	m. xxx.
Aqua chloroform	1 oz.
one dose.	T. D. S.

N. B.—Liq. anantamul et Sarasa co is a special preparation of the well known firm—the Indian Medical Laboratory, Calcutta. It contains drugs like Ext. Jamaica Sarasaparilla liq., Ext. Trifolium Protens liqd., Ext. Aswagandha liqd., Ext. Satamuli liqd., Inf. Berberis, Ext. Shamlata liqd., Ext. Sarpunkha liqd., Ext. Gokhru liqd., Ext. Saleb misri, Ext. Anantmul and suitable adjuvants, these are all blood purifying and restorative tonics in one way or other. The usual dose is 1 to 4 full drs. T. D. S. dissolved in water.

2 *Endermically*—Generally calomel is dusted on sores and ulcers and lotions are locally applied.

3. *By the Rectum*:—This method was tried in 1884 by Bryant. He said it was the best method of treatment as it caused no gastro-intestinal disorders. Prof. Andry at first used Liq. Hydrargyri Perchlor in Saline solution and dilute solution of Biniodide but the results were not successful. Next he tried Grey oil suppositories with excellent results. This suppository is prepared as follows:—Mix 40% metallic mercury and cocoabutter. Heat cocoabutter, mix Grey oil quickly. On cooling it sets. Suppositories containing 0.02, 0.03, and 0.04 gm. of metallic mercury are also supplied. The first dose is for children and the other two doses for adults. Each suppository contains $\frac{1}{4}$ to $\frac{1}{2}$ gr. of metallic mercury. The treatment should be pushed on for a month with a rest of 4 or 5 days, and it is begun again. *Supsalv* (A. F. D. Co) is a patent preparation of stable suppositories of '603' used for this purpose. One 'supsalv' is introduced per rectum every three days for 3 weeks; then a period of rest for 2 weeks, and then another course of 3 weeks and so on for three total courses in a patient. 'Supsalve' is supplied in 0.03 gm. (for infants) and 0.10 grms (for adults) and is said to be efficacious and free from risk.

4. *By Inunction*:—Inunction of the mercurial ointments—Blue ointment or Hydrargyri Oleate is also frequently adopted, and with great success, in as much as it is less likely to cause digestive derangements. But it requires to be done by expert attendants and on a uniform method. Usually a piece of the size of the top of the thumb (1 dr.) is rubbed in once a day by ungloved hand for 15 to 30 minutes. Different parts of the body are selected on successive days *e. g.*, the arm one day, the forearm the next, the back, chest, thighs, and legs on successive days, and then the arm again. As for foot, the ointment has been put inside the sock, for then it is rubbed into the foot while walking. A very efficient way of applying it in children is to smear it on a flannel binder worn round the abdomen. A complete course includes a daily inunction for six weeks, a rest of 3 months, another course of 6 weeks inunction, a rest of 3 months, and then a month's inunction, a rest of 6 months, another month's inunction, 6 months rest and finally 20 days inunction bringing thus the whole period upto two years.

'*Mersalv*' (A. F. D. Co)—A mercurial cream containing 10% of metallic mercury is a patent preparation used for inun-

ction. 'Encal' is an ointment, consisting of mercurous chloride i part, and 'Eumattan' and rose water, each i part. Daily dose is 3-4 grms. used for inunction. 'Mercurin'—is a powder composed of talc and mercury. This can be obtained in 30% and 50% strengths and applied by massage into the skin for 20 minutes.

(5) *Fumigation*—Mercurial vapour baths may be advantageously employed where the cutaneous eruption is very extensive. The patient sits naked on a cane-seated chair, and covered with a blanket or specially-constructed cloak reaching from the neck to the ground, and not touching the body. Thirty grains of calomel are placed on a metal plate surrounded by a trough containing about an ounce of water. The water is then boiled and the calomel sublimed by means of a spirit lamp placed under the chair. In about 20 minutes all the calomel is volatilized and deposited in part on the patients' skin, who perspires freely during the process. He then gets into bed between warm blankets without wiping the skin.

6. *Inhalations*:—Not employed.

7. *Baths*:—Very rarely used. As a routine measure Hydrargyri Perchlor drs. 3 is added to 30 gallons of water with 1 full dr of acid hydrochloric and this whole makes a full bath.

8. *Intramuscularly*:—This method, which is clear, convenient and does not upset the stomach, is a more recent method of mercurial medication. It dates from the time of John Hunter. Though the alarmists have emphasized the danger of suppuration, salivation, and emboli associated with it, it has come into vogue again during the last few years as increasing experience has proved it to be safe and efficacious in careful hands, and with due regard to asepsis. Insoluble preparations of mercury are mainly relied on and especially the form of metallic mercury suspended in a cream. The following is a good combination as suggested by Lambkin:—

Re:—Hydrargyrum 4 drs.

Adipis Lanaeanhyd 2 ozs.

Paraffin liqd. (carbolised 2%) add 5 ozs (by volume)

Finished product=1 gr. in min x

Dose, m. x as a maximum once a week

(Surgery Rose and Carless).

Besides the above the following are usually employed:—

1. *Hydrargyri Perchlor*,—Dose $\frac{1}{3}$ gr. in 20 minims of water. Start with a small dose, about gr. $\frac{1}{10}$ to $\frac{1}{5}$ daily or every other day, until the gums become affected, gradually increase the dose, and then administer about $\frac{1}{4}$ gr, once or twice a week or every 2nd week according to the state of gums. To prevent pain 1-2% of cocaine may be added.

(2) *Hydrargyri Iodi Rubri*:—dose $\frac{1}{3}$ gr. in 10 drops of water injected every 5th day.

Pana's Biniodide oil.

Re:—Biniodide of mercury 4 ctgms.

Sterilised oil 10 cc.

1 cc of it contains $\frac{1}{16}$ gr. of Biniodide. If necessary double the dose.

This combination causes no stomatitis, no pain after injection, no localised nodosities and it is safe, active and better tolerated, but is inferior to calomel and grey oil.

3. *Sal alembroth* (ammonio-mercuric chloride). It is spoken highly by Bloxam.

Re:—Mercuric Chloride	grs. 2
Ammon chlor	gr. i
Aqua destill	dr. i

Mix. Dose m x. Injected once a week.

Re:—Sal alembroth	grs. v	} Mix. Dose,
Aqua Destill	m. 100	

4. *Hydrargyri oxycyanide*:—Dose $\frac{1}{3}$ gr. in 5 cc. 15-20 injections form a course given daily or on alternate days.

5. *Hydrargyri Salicylate*:—dose 1 gr.

6. *Hydrargyri Lactatis*

Re:—Hydrargyri Lactatis	grs. 3½
Aqua Destill	m. 100
Dose 10-20 m.	

7. *Hydrargyri Succinimide*—

Re:—Hydrargyri Succinimide	2%
Cocaine Hydroch.	½%

Dose 20-30 m. It is less painful but equally efficacious than Hydrargyri Perchlor.

8. Hydrargyri Protoiodide—dose $\frac{1}{8}$ gr.
 9. „ Cyanide „ $\frac{1}{8}$ gr.
 10. „ Benzoas „ $\frac{1}{8}$ gr.
- Re:—Hydrargyri Benzoas grs. 4 }
 Sodii Chloride grs. $\frac{1}{2}$ } Mix Dose 15 m.
 Aqua Destill oz. $1\frac{1}{2}$ }

11. *Asparagin-mercury*:—It is prepared by dissolving $2\frac{1}{2}$ drs. of asparagin in water (warm) and adding oxide of mercury to the solution to saturation. Filter the solution. Dose 15 m. of a 1% solution.

12. *Mercuvosal*:—It is Di-sodium-Hydroxy-Mercuri-Salicyl-oxo-acetate. Chiefly useful in secondary and tertiary syphilis. May be advantageously used in conjunction with arsphenamin. It contains 4-7ths as much mercury but is only $\frac{1}{2}$ as toxic and free from corrosive action and can be used for continued courses of injections. The intramuscular dose is 0.05 gm. every 4th day for 10 injections while the intravenous dose is 0.1–0.2 gm. every second day for 12–15 injections.

Contraindications:—Potassium and other Iodides are physiologically incompatible, the more toxic Iodides being formed. Iodides may be prescribed after several days. This preparation may cause loose motions, hence it is always safe to use some protective agent e.g., Bismuth subnitras, or milk of Bismuth in 4 drs doses after the injection. This preparation is of P. D. & Co. and can be had from them in ampoules and powders.

13. "*Pharmasol*" *Hydrargyrum*:—(Colloidal mercurous oxide). It is rapidly assimilated and is of low toxicity. It is of great value when mercury is required to be administered continuously and is useful both in early and late syphilis. Supplied in Intravenous and Intramuscular (1%) ampoules. Dose 3 cc once a week for a series of 8 to 12 doses. Orally—(0.05%, dose—1–2 drs. B. D. S. before food.

14. Hydragyri Formamide
15. „ Alanitate
16. „ Peptonate
17. „ Cyanate
18. *Calomel*:— $\frac{1}{8}$ gr. suspended in olive oil.
19. *Merinject* (Cont. Drug. Co.)—a soluble mercury solution, each ampoule contains 0.02 gm Hydrargyri Cyanide and a small addition of Novocaine. Given intramuscularly. Excellent result in lues, Syphilis etc.

20. *Mercury and Arsenic*

Re

Sod. Dimethylarsenate 31 grs.
 Mercury Iodide $\frac{1}{12}$ gr.
 Aqua Destill 5 c c.

Indicated in all stages of syphilis. A course usually of 6 injections; given at intervals of 5 days. Repeated once in 2 months if a positive W reaction persists, where a thorough mercurialization is desired, mercury oxycyanide (A. F. D. Co.) may be given during the intervening month as often as every other day till some salivation occurs.

21. *Oleum cinereum* (grey oil).

22. *Cyarsal*.—(Potassium Cyanmercurisalicylate).—It is a colourless, crystalline powder, stable in air and contains 46 % of metallic mercury. Soluble in water, producing a neutral solution and not decomposed by boiling. It is especially recommended for the simultaneous treatment of syphilis by means of mercury salvarsan or its derivatives e.g. Neo or silver salvarsan etc. Oelze has given the drug in 2 cc doses, in women slightly less, together with 0.45 gms. of neosalvarsan twice a week.

23. *Meracetin*.—(Anhydroxy mercuripyrrocatechin acetic acid).—A white powder soluble in alkalies but insoluble in water or alcohol. Contains 54% of mercury. The intramuscular dose is half to one syringe (1 cc) weekly in suspension in liquid paraffin. The oral dose is 0.01–0.2 gm. T. D. S.

24. *Mercedan* (Sodium mercuric para-nucleinate):—Obtainable in ampoules each containing 1 cc of a 25% solution or in tablets each corresponding to 0.01 gm of mercury. Dose of tablet—1–3 per day.

25. *Mercoid*:—A suspension of sodium mercurisalicyl sulphonate and calomel in liquid paraffin. Dose 0.5–2cc.

26. *Mercury, Colloidal*:—Very efficacious. Contains 40–45% of mercury and has been given in series of seven intragluteal injections. The dose for adults ranging between 0.07–0.1 gm and the interval between each injection being 5 days. The drug causes frequently mercurial stomatitis.

27. *Modenol*:—A soluble mercury compound and obtainable in ampoules of 2 cc; each ampoule being equal to 0.06 gm of the arsenic-mercury compound. Particularly suitable for use in

all those cases in which other mercurial preparations do not agree, e.g. in debilitated, emaciated and anæmic patients and in the tuberculous. Modenol treatment, it is said, is in the first place indicated in sensitive patients, and in women, young girls and children. In all cases in which salvarsan can't be given, Modenol fulfils the double function of mercury and arsenic. Striking effects with this drug are seen in Syphilis of internal organs and of nervous system. Modenol is a full substitute for the French preparation "Enesol". This preparation is worth trial.

28. *Novasurol*:—An improved "Asurol", supplied in ampoules each containing 2.2 cc of a 10 % solution of the drug. The compound itself, stated to be a double salt of oxymercuriochlorphenoxyl-sodium acetate and diethylmalonyl urea, occurs as a white powder, soluble in water with a neutral reaction. It contains 33.9% of mercury. It is usually well borne and not painful. It may not suit such cases as very debilitated patients. Intravenously, however, Novasurol is well borne.

29. *Sarhysol*:—A substitute for 'Enesol' and a compound of mercury Succinimide and sodium methyl arsenate. One cc of the solution corresponds to 0.1 gm. It may be used when insoluble mercury salts cause too severe local irritation. Bornemann gave it simultaneously with calomel and was able by this method to cause the lesions to disappear very rapidly.

30. *Contraluesin* (colloidal mercury)—used intramuscularly.

Whichever preparation is used, the patient if under weight should receive 1 gr. and if over average weight 1½ gr. of mercury once a week for 6 weeks, then there should be 2 months' rest, then intramuscular injections should be resumed, and these should alternate with rests so that 40 to 50 grs. are given in 2 years. If calomel is given the dose is gr. ½.

Precautions to be taken while performing intramuscular injections:—

(a) See that the fluid does not deposit in the deeper parts of the proper derma, otherwise an eschar will be formed.

(b) Fluid must not be injected into a vein, as it is liable to cause dizziness, syncope, feeling of suffocation, pain in the lungs and heart. So watch the movements of the piston. Moderate resistance will be felt if the tip of the needle be in subcutaneous tissues but if the tip be in a vein, the injection

will pass out easily. Then push the needle down further or withdraw it a little.

The insoluble preparations of mercury e.g., calomel and metallic mercury etc have largely been used in France and Germany, but the soluble salts are preferred because

- (a) Injection is easy,
- (b) It is quickly absorbed,
- (c) Rapid therapeutic effect is possible: lesions improve rapidly.
- (d) No loss of time and no danger of embolism,
- (e) Can be injected into any region.
- (f) Both hypodermic and intramuscular methods may be tried.

The following objections in connection with soluble salts are to be noted:—

- (a) It is rapidly excreted, hence the necessity of frequent injections.
- (b) The injection is very painful,
- (c) Erythematous condition of skin: heat, itching and burning sensation. Chiefly relieved by rest and cooler lotions.
- (d) Infiltration of subcutaneous tissues occurs.
- (e) Localised form of nodosities,

(f) It is not a good method in the routine treatment of secondary syphilis—only a small quantity of mercury introduced at one sitting e.g., ½ gr. of Hydrargyri chloride for each injection = ½ gr. of metallic mercury. Some writers advise injections of soluble salts in big doses but that is a dangerous practice for

(1) rapid absorption may cause alarming symptoms (2) mercurialisation though intense, is not persistent.

In treating syphilis intramuscularly with soluble salts of mercury, the following important points should be noted:—

1. No definite dose can be fixed for each patient as they tolerate mercury differently, so each patient should be well studied. The nature of the disease—secondary or tertiary should be properly diagnosed.

(2) *Maximum dose*:—Lambkin's original formula contained 20% of mercury (3grs). Afterwards he used a cream containing 10% of mercury (1 gr. in 10 m.)

(3) *Period of treatment*:—Two years course of intramuscular injection of insoluble salts.

(4) *Calomel*:—Dose gr. i or m xv. of the cream once a week for a month.

(5) Treatment should be intermittent i.e. courses of mercury followed by a period of rest.

(6) Begin with calomel injections; after 4 calomel injections use metallic mercury as the marked symptoms subside.

(7) Examine mouth and teeth and urine for sugar or albumen and take weight regularly.

(8) *Lambkin's plan*:—

1. 6 weeks 6 mercurial injections 4 calomel & 2 metallic mc.
2. 2 months rest
3. 2 " 4 " " 4 "
4. 4 " rest
5. 2 " 4 " " 4 "
6. 6 " rest
7. 4 " 4 " " 4 "
8. 1 " rest
9. 2 " 4 " " 4 "

(9) Inject calomel cream in all urgent cases.

Lambkin recommended calomel cream for intramuscular administration in syphilis as a preliminary treatment (followed by mercury injections to get the patient under the influence of mercury rapidly, as in severe cases which need energetic measures). Calomel should not be given after ingestion of salts, salted food dishes, nor with chlorides, bromides and iodides.

Further course is necessary, if at the end of this treatment W. R. remains positive.

Advantages and Disadvantages of Insoluble salts of mercury:

Advantages:—

1. 12 to 20 injections administered at weekly intervals.
2. No danger except nodositis in the buttocks. Lumbar muscles may be utilised also.
3. Lesser risks of stomatitis.
4. Stomach remains free from the medicines.
5. Digestion is not impaired.
6. More certain absorption of mercury.

7. Less inconvenience to the patient and he is less likely to elude treatment.

Disadvantages:—

1. Pain—It is slight; but soreness lasts for a day or two.
2. Painful nodositis.
3. Abscess formation is not uncommon.
4. If mercurialism develops, it is very difficult rather impossible to remove the source of mercury.
5. Pulmonary embolism as a result of faulty technique is not infrequent.

9. *Intravenously*:—The soluble salts are generally used. This method was introduced in 1893 by Bacelli.

(1) *Hydrargyri Bichloride*:—in 0.1 to 0.2% solution. 1 cc. (representing gr. $\frac{1}{64}$ to $\frac{1}{32}$) is injected or dissolve 0.1 to 0.2% solution. The dose is m. xv.

(2) *Hydrargyri Cyanide*:—Dose gr. $\frac{1}{6}$. 1% solution (Lane), 20 m. injected daily. The dose may be doubled. It may be injected daily or on alternate days in courses of from 20 to 30.

(3) *Hydroargyri Benzoas*:—Dose $\frac{1}{30}$ — $\frac{1}{7}$ gr. alternately for a month.

(4) 'Pharmasol' Hydrargyri }
(5) Mercurosol. } See intramuscular injection

6. *Hydrargyri Biniolite*:—Dose $\frac{1}{30}$ — $\frac{1}{7}$ gr. It is less poisonous and more active than cyanide (Lloy-Bing).

7. *Ampoules Souffron Mercury Biniolide*:—(oily or aqueous): Dose —2 cgm. in each ampoule.

10. *Paravenously*:—This form of treatment was suggested by Long. By this method the mercury reaches blood promptly but not too directly.

During mercury treatment, patient's general health and habits must be carefully regulated; alcohol forbidden, exercise limited and teeth and gums should be kept scrupulously clean. An astringent mouth-wash containing alum and Pot. chloras. may be prescribed; any diseased-tooth may be removed. Stop all smoking for at least 6 months to minimise the risk of throat, and mouth trouble. The dose of mercury varies in different individuals, increased in healthy and robust, and

diminished in thin and weakly patients. It should always be pushed on until mild physiological effects are seen e.g., tenderness of gums, but salivation of the patient is undesirable. Full doses are usually required for 4 or 5 months followed by a milder course, which should extend till the end of 1st year. It is always better to insist on a 3 months' course of mercury twice a year up to 3 years. The treatment should always be commenced with small doses and the symptoms of poisoning carefully watched.

Symptoms of chronic mercurialism:—First indications noticed are slight foetor of breath and soreness of gums when the teeth are knocked. Then follows a disagreeable metallic taste in the mouth, the gums are swollen and soft and spongy and bleed rapidly. The saliva is considerably increased. Afterwards the tongue swells, the teeth are now loose and may be shed, and the alveoli may undergo necrosis. The saliva now pours over the mouth, the parotid and salivary glands are enlarged and tender and there may be some temperature. Digestive derangements such as diarrhoea and colic are also seen. Rashes over the body may occur. More rarely tremor, beginning in the face, the arms and legs are seen early in the case, the trembling is seen only on movement, soon it is permanent. There may be some considerable weakness of the affected muscles.

Treatment:—(1) Suspend the drug for a time and give a sharp saline purge, (2) Demulscient drugs like milk, ghee, albumin water etc, (3) Banana fruits, (4) an alum or Pot. Chloras mouth wash for spongy gums, (5) corrected sulphur in 12 grs. doses with juice of betel leaf or Tulsi for a week. (6) Trisugandhi churna (Ayurvedic) in medicinal doses.

Pot. Iodide in Syphilis:—This was introduced by Wallace of Dublin in 1836. Its value for the primary and secondary stages is comparatively slight but it is in the late secondary and in the tertiary stages of syphilis and particularly in the internal manifestations, that Pot. Iodide finds its chief use. It appears probable that its chief action is the removal of gummatous tissue, and nodes and other syphilitic deposits, and that it could only relieve but could not cure the disease and that it acted possibly by breaking down the connective tissues of syphilitic inflammations which enclose the active spirochaetæ and thus render them more accessible to anti-syphilitic remedies. Hence to prevent recurrence of the disease salvarsan or mercury is still needed: Start with grs. v. and gradually increase until in

some cases 1 drachm T. D. S. is reached. Plenty of water should always be taken immediately afterwards to assist its dilution and facilitate its absorption. A feeling of depression and sinking at the epigastrium is sometimes produced, which can be alleviated by the addition to the mixture of sal volatile m xv or ammonia carb, as suggested by Sir James Paget. Coryza is often seen, and an acniform eruption over the shoulders and face, which can be made to disappear by increasing the dose or adding arsenic. One may see occasionally, a vesicular, or even bullous rash. When large doses are given, Soda or Potash Bicarb should be combined with this drug to prevent its decomposition by gastric juice. If mercury is required, it is better to prescribe Grey Powder than to add Liquor Hydrargyri perchlor to the Iodide in a mixture, as the latter usually disturbs the digestion. Other drugs e.g., sarsaparilla, arsenic, iron Liq-anantamul et sarsa co may be combined with Iodide in the later manifestations of the disease. If Pot. Iodide causes much depression, it may be changed by Soda Iodide in the same dose or a mixture of Iodides of sodium, potassium and ammonium may be given in equal parts. Dr. Savil opines that the doses generally given are not large enough and consequently he starts with 20 grs. and rapidly increases the dose to 60 grs. T. D. S. after meals followed by a glass of milk. The largest dose, he has given, is 90 grains T.D.S.

When symptoms of Iodism disappear, the dose may be lowered, but on no account should the Iodides be stopped until at least 3 months later.

Iodia (Battle & Co.) is a major remedy in all forms of syphilis. It is a combination of Pot. Iodide with other absorbents of a vegetable nature and contains iron and phosphorous also. The usual dose is two drachms three times a day before meals.

Arsenic in Syphilis:—Attempts to treat syphilis with organic preparations of arsenic were not very successful at first. Substances of the arylarsonate type e.g., atoxyl, soamin, arsacetin etc., were tried. Although a few good results were obtained the majority were disappointing and some disastrous in as much as the prolonged use of such drugs was seen to be followed by toxic phenomena e.g., optic nerve atrophy etc. hence in course of time they were all abandoned. Metchnikoff in 1907 proved the prophylactic use of Atoxyl in syphilis,

Rate of excretion of arsenic from the body:—It has been found by repeated observations that the greater part of arsenic after '606' intravenously disappeared from the urine and faeces in from 10–15 days. Whereas after an intravenous injection of '914' most of it disappeared after 8–10 hours and none could be found after 2 days. When '914' is injected intramuscularly, the rate of excretion of the arsenic is practically the same as follows the '606' intravenously. The rate of excretion is slowed in repeated injections, hence the necessity of a *period* of rest during injection treatment as many cases of poisoning may occur due to the cumulative action of arsenic.

Some Equivalents of Neosalvarsan:—

1. Novarsenobenzol (Billon) French
2. Novarsenobillion (N. A. B.) British
3. Neo-Kharsivan
4. Neo-arsphenamin
5. Neo-diarsenol.

(9) *Sodium Salvarsan*:—Soluble in distilled water and gives an alkaline reaction and can be administered in more concentrated forms. arsenic contents is 20%.

Indications of Salvarsan:—

1. At the onset where diagnosis is made early. One dose (0.5 grm.) is quite sufficient.
2. Severe skin and mucous membrane lesions,
3. Congenital syphilis
4. Malignant cases
5. Those who can't take or tolerate mercury
6. Latent cases.

Salvarsan is *doubtful* in visceral syphilis, lesions of the nervous system and parasymphilitic affections.

The Toxic effects of Arseno-Benzol Preparations.—The health of individual patient—these effects have most commonly been observed in cachectic patients and in those, who in addition to syphilis have other pathological complications. It is inadvisable to administer these preparations in patients suffering from Diabetes, Addison's disease, and Chronic Nephritis unless of syphilitic origin, gross cardiac and hepatic disorders.

These preparations should be given *with caution* in

1. Advanced cardio-vascular disease especially, myocarditis, angina pectoris etc.,

2. Gross syphilitic involvement of the C. N. S.,
3. Cases of syphilitic nephritis with haematuria, albuminuria or casts and hepatitis,
4. Tuberculous and other debilitating diseases, Haemophilia etc.
5. Alcoholism,
6. Aneurism and arterio sclerosis,
7. Diabetes,
8. Septic conditions *e.g.*, syphilitic ulceration of the throat etc,
9. Chronic catarrh of the stomach and intestines,
10. Any constitutional tendency to dermatoses *e.g.*, erythema, Eczema, and Psoriasis, also severe seborrhoea of the scalp.

N. B.—In such cases it is always safe to begin with 0.2 gm Intramuscular or subcutaneous methods are much safer in these conditions. A patient who has already suffered from arsenical dermatitis should not be put any more on arsenic treatment but be given Bismuth instead.

The administration of an anti-syphilitic remedy in such cases may result in a transitory exacerbation of all symptoms. This is known as Jarisch Herxheimer reaction.

Arseno-Benzol Preparations are absolutely contra-indicated in:—

- (1) Cases of albuminuria with casts,
- (2) Advanced visceral diseases,
- (3) Addison's disease,
- (4) Haemophilia and other bleeding diseases.

Reactions commonly met with during and after the administration of Arseno-Benzol preparations:—

Colonel W. L. Harnett F.R.C.S. describes them as follows:—

(A) *During or immediately after the injection*:—

1. *Vaso-motor disturbances e.g.*:—Puffing of the face, dilatation of pupil, rapid pulse, pericardial distress and coughing. In more severe degree the face becomes congested lips and tongue may swell. There may be convulsive twitching. Urticaria may be seen. These symptoms are known as Nitritoid or Anaphylactoid shock. These are uncommon if the patient is carefully prepared and the drug administered with usual precautions. These reactions are very rare after subcutaneous injections.

The arylarsonate contain from 25.7 to 37.07% of arsenic. The following preparations were used:—

1. *Atoxyl* (sodium-amino-phenyl-arsonate):— Contains 27.273% of arsenic. Dose grs. 6 in water, administered intravenously every alternate day upto 8 injections like Lambkin's cream. Acids decompose Atoxyl. The Syringe should be sterilised with heat only.

Atoxyl should not be prescribed orally but an ointment grs. 6 to 4 drs. can be locally applied. It is especially indicated in ulceration of the mucous membrane of the mouths, tongue, throat etc, and condyloma.

Hallapen and Salmon's Scheme.

1st day	inject	0.75 grains
2nd "		Rest
3rd "	"	0.60 "
4th "		Rest
5th "	"	0.50 "
6th "		Rest.

2. *Asodyl*:—(Sodium—3 methyl—4 acetyl—amino phenyl—arsenate)—a soluble salt contains 2.48% of arsenic.

3. *Orsudian*:—Another name for asodyl (B. W. Co) Dose grs. x dissolved in 4 drs. of distilled water at 100 °F every other day. Such injections are given. The results have proved satisfactory.

4. *Kharsin*:—Chemically same as No. 2 It is insoluble in its own weight of water and reactions is neutral.

5. *Soamin* (B. W. Co.):—Sodium-para-amino-phenyl-arsonate contains 22% of arsenic and is practically identical with Atoxyl. Dose grs. x. every second day intramuscularly: Ten injections are usually given. It is especially indicated in ulcerated throat cases and condylomata. This preparation is soluble in 5 of cold and 3 parts of warm water and the solution should be heated to body temperature before use. There should be an interval of 14 days between the injections of mercury and arsenic. It should not be given orally.

6. *Arsacetin* (Ehrlich) — Sodium-acetyl-Phenyl-arsonate. Dose 10 grs. in 15% solution for each injection every alternate day. Ten injections constitute one course. The 2nd and 3rd courses may be repeated after 3 and 6 months respectively. Warm the solution before injecting.

The noble band of workers Paul, Ehrlich and Hata went on experimenting in this direction and finally after experimenting with six hundred and five preparations, they introduced the world-wide known preparation salvarsan or '606'.

7. *Salvarsan* or '606'—(Dioxy-diamido-arsenobenzol). It is a bright yellow powder, slowly soluble in water, and its reaction strongly acid. It contains 31% of arsenic and is injected intramuscularly and intravenously preferably the latter. Dose is 0.3 to 0.6 grms. It should be dissolved in sterilized normal solution made with aqua Distillata. It is then converted into a sodium salt of the base by adding a sufficient quantity of 15% solution of sodii hydras to redissolve the precipitate formed when it is first added. This solution is then made upto 250 or 300 cc. with saline solution and introduced intravenously at body temperature. The patient must be carefully prepared. A purgative should be given overnight, and no food, whatsoever, being permitted for at least 4 hours before or after injection. It is desirable that the patient remains in bed for 12—14 hours before and for 24 hours afterwards or longer, if he manifests any symptoms like pyrexia, muscular pain, headache etc. or other type of reaction.

Preparations equivalent to salvarsan are:—

- | | |
|-----------------|--------------------|
| 1. Arsenobenzol | 2. Arsenobillon |
| 3. Kharsivan | 4. Arspheramin and |
| 5. Diarsenol | |

Ehrlich, experiencing certain difficulties in the administration of '606' ('606' requires the addition of an alkali to make it fit for injection) prepared two other preparations, *i. e.* Neo-salvarsan '914' and salvarasan sodium.

(8) *Neo-salvarsan*:—'914' (Dioxy—diamino-arseno-benzene-monomethylene sulphoxylate of soda). It is a clear yellow powder, readily soluble in distilled water, in which it forms a neutral solution. Only a small bulk of distilled water upto 10 cc. is necessary for one injection. It readily undergoes decomposition when exposed to the atmosphere, hence it should not be used if the colour is darkened. It is less irritating to the tissue and less toxic than '606'. The arsenic content is 22%. Average dose for men is 0.45 to 0.9 grm. and for women is 0.45 to 0.75 gms. It is injected intravenously as well as intramuscularly, the latter being preferred. It is found that 0.9-grms. of '914' = 0.6 grm of '606'.

These symptoms pass off in $\frac{1}{2}$ an hour but they may persist for several hours.

2. *Syncope*:—Vomiting may precede it.
3. Pain in the gums and teeth—more often seen in stomatitis cases.
4. A taste of garlic during the injection—this is generally seen if concentrated solutions are administered.
5. Urticaria following an injection is comparatively rare, but when it does occur it usually succeeds a severe vasomotor reaction.

(B) *Following the injection usually by a few hours and occurring generally on the same day*:—

1. Rigor, rise of temperature and headache. Fever is less likely to follow subcutaneous injection;
2. Diarrhoea and vomiting,
3. Herpes labialis and Zoster—rare.

(c) *At various times from a day or two to a month or longer after an injection or series of injections*:—

1. *Albuminuria*:—A temporary toxic reaction after first or second injections and clears up of its own accord. If albuminuria is met with late in the course of treatment it is advisable to rest the patient from all intensive specific treatment for some time till it disappears. If, on the other hand, the albuminuria is due to syphilitic changes in the kidneys, the administration of arsenobenzol with Iodides will be beneficial, but the dosage must be guarded by testing the renal function from time to time.

2. *Stomatitis*:—Mercury or bismuth is contra-indicated if it is severe.

3. *General malaise* with headache, constant nausea, loss of appetite, insomnia and loss of weight. These are all signs of increasing intolerance.

4. *Several cerebral symptoms*:—With mental confusion, headache, epileptiform convulsions and even coma. These are the result of damage to the endothelium of cerebral capillaries with extensive thrombosis and minute haemorrhages into the brain substance.

5. *Erythema and Exfoliative dermatitis*:—In severe dermatitis the whole epidermis is shed and the case appears as if suffering from burns of 2nd degree. There is temperature, and diarrhoea,

Bronchopneumonia or septicaemia may be seen. The former is a most common complication of dermatitis exfoliativa. These complications are much less frequent in intramuscular or subcutaneous administration.

6. Jaundice.

McDonagh has observed the following other complications:—Gummata, yellow atrophy (arsenical hepatitis), recurrence in the nervous system; recurring chancre within six months, neurasthenia, severe arsenical neuritis (including facial paralysis) and rarely hemiplegia.

Treatment of arsenical poisoning and complications:—

(A) *Acute Poisoning*:—

(i) When cardiac symptoms predominate:—Ether (20-60 m) or strychnine sulph ($\frac{1}{64}$ to $\frac{1}{16}$ gr.) or camphor in oil (1½-3 grs) inject subcutaneously. Brandy given; freshly prepared humid peroxide of iron or dialysed iron; hot blankets and bottles to the abdomen.

(ii) *When pulmonary symptoms predominate*:—

Adrenaline chloride solution (1:1000) hypodermically.

Artificial respirations if needed,

(B) *Complications*:—

1. *Loss of weight*:—Dosage reduced, interval between them increased,

2. *Urinary changes*:—See albuminuria C.—I.

3. *Erythema*:—1. Stop arsenic + mercury treatment.

2. Saline purges.

3. Intramine 25 cc. intramuscularly. 2-8 injections may be required, an interval of 5 days allowed between each injection.

4. Venesection—withdraw 10-15 ounces and blood. Light diet.

4. *Exfoliative dermatitis*:—

1. Stop mercury and arsenic treatment on the least sign of erythema. Light diet + saline purges.

2. Sodium thiosulphate 0.3 to 0.6 grm. intravenously—Daily injections.

3. Sulphur confectio sulphuris—dose 2 drachms T. D. S.

4. Sheets should be changed daily and cradles used to keep clothes off the patient.
5. Keep the skin as dry as possible in early stages.
6. Assist the scaling off of epithelium by bran bath, soda bicarb bath, or boric poultices.
7. Ichthyol ointment 10% for tissues in the flexures and for pustular stage.
8. Calamine lotion for weeping eczema stage.
5. *Jaundice*:—Treat it as for simple catarrhal jaundice, Glucose intravenously; Intramine injections as for erythema.
6. *Cerebral disturbances*:—
 - (a) Stop arsenic + mercury treatment
 - (b) Immediate lumbar puncture with drainage of 20–30 cc. of spinal fluid
 - (c) Venesection—15–20 ounces of blood withdrawn.
 - (d) Adrenaline chloride (1:1000) 1 to 1.5 cc. intramuscularly.
7. *Vaso-motor disturbances*:—
 - (1) Stop arsenic + mercury treatment
 - (2) Adrenaline chloride (1:1000) is best both as preventive and curative, given intramuscularly.
8. *Stomatitis*:—
 - Stop arsenic + mercury treatment.
 2. Boric acid, or alum, or Potashchloras mouth washes. Pot-chloras internally also
 3. Diet—Light and nourishing.

* ON TREATMENT OF DYSENTERY.

BY

T. P. TIWARI, L. M. P., ASSISTANT MEDICAL
OFFICER, MUNGELI, C. P.

The term dysentery includes two definitely different conditions both with regard to causative factor as well as to clinical manifestations. Amœbic dysentery, so called on account of *Entamoeba histolytica* being the causative organism is a disease altogether different from bacillary dysentery which owes its origin to the infection of a bacillus which may either

* Specially contributed to "The Antiseptic"

be that of Shiga Flexner or His. These two different conditions call for altogether different lines of treatment and these few lines will have done their purpose, if they succeed in re-emphasizing this fact and putting some check to that universal application of Emetine therapy to all sorts of dysentery cases, irrespective of their cause, which I know for certain to be the practice of many a man in our profession.

Emetine is a toxic drug not free from dangers and its use should be restricted to those cases only where its application is specifically called upon and in view of this fact it is extremely important that the cause of a particular case of dysentery is fully recognized. These two conditions though bearing some common characteristics, are so totally different from each other, even in clinical manifestations that apart from microscope and other elaborate laboratory methods of diagnosis their recognition is not difficult. The following points if carefully looked for will set the enquiry in right direction and chances of error will be reduced to minimum.

CLINICAL DIFFERENCES

AMOEBIC	BACILLARY
Usually not an acute trouble	Almost always an acute condition
Patient not necessarily confined to bed	Patient generally in bed.
Little or no fever	There is always Fever.
Stools less frequent	Stools very frequent. Sometimes even up to 100 or more per day.
Stools very foul smelling	Not Foul.
Quantity of stool more	Quantity less.
Colour dark red. May contain mucous blood and faecal mass.	Light pink. Mixed blood and mucous.
Tendency to relapse and become chronic very much marked	Not so.

MICROSCOPIC DIFFERENCES

Cellular element in stools scanty.	Cellular element abundant
Amœba present	No amœba.
Eosinophile cells in stools	No eosinophile cells.
Charcoleyden crystals present	No such crystals.

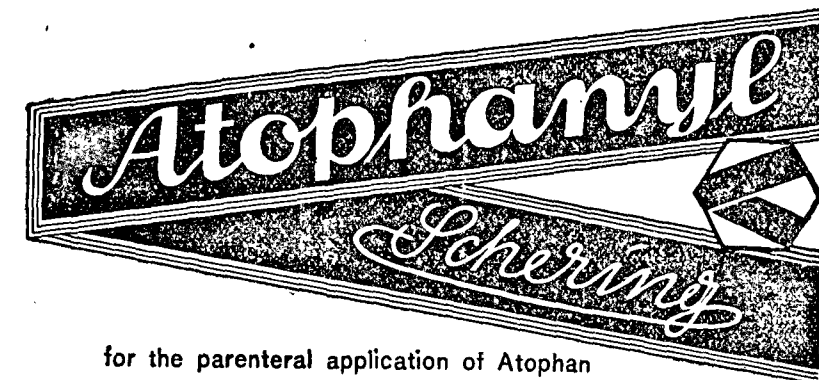
Treatment.—When facilities for microscopic examination of stools are available, such an examination must on no account be omitted before starting treatment. In this connection it is important to bear in mind that identification of amoeba is not always an easy task. Swollen epithelial cells can easily be confused with them. Pathognomonic feature of an amoeba is its amoeboid movement and this must be carefully looked for before a diagnosis of amoebic dysentery is positively established. This can easily be accomplished if quite fresh stools are taken for examination. As soon as the condition is recognized to be one due to amoebic infection treatment should be commenced in right earnest, and for this purpose Emetine still happens to be the best drug. Subcutaneous injection of Emetine gr. 1 each day should be given for 9 days. There should then be an interval of 3 days after which 3 more injections should be given on three consecutive days. This completes a course. Patient may then be put on Yatren two pills once twice or thrice a day for a week. This should be followed by a course of Extract Kurchi tabloids 20 to 30 grains per day for some time. Examination of stools should be continued once a week for 6 months even after an apparent cure.

Treatment of Bacillary dysentery is best carried out by administration of saline aperients. One drachm of Sodium Sulphate in an ounce of water should be given every hour till a liquid fæculant motion is passed. Interval between the doses then can be increased to 4 or 6 hours. Two or three days later one or two doses will be sufficient. Intestinal antiseptics like salol, sodi sulpho carbol; etc may also be given with advantage.

SERUM TREATMENT.

Polyvalent anti-dysenteric serum if available should be employed in all cases of bacillary dysentery. To be efficacious it should be used in the early stages of the disease preferably within the first 48 hours. 40 to 50 cc should be injected subcutaneously to be repeated on the 2nd and 3rd day. This treatment is not meant to replace the saline treatment. It should be as a matter of fact combined with it.

Rest in bed, low diet etc., constitute an essential part of the treatment and should be applied to all cases of dysentery.



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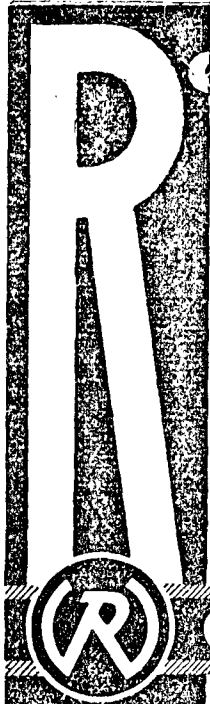
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CASES AND COMMENTS.

AN INTERESTING CASE OF VESICULAR MOLE

BY

DR. K. V. JOGLEKAR, M. B. B. S., RANEBENNUR.

Some three months back one early morning I was called in to see a case. I went and found the patient in an unconscious state. With cold water on the face and with smelling salt she came round. On enquiry I learned that the patient in question was supposed to be pregnant and had completed four months. The previous night she had heavy meals and had three motions and vomited nearly half a dozen times. Just after the last vomit she was unconscious. I sent a dose of carminative mixture, but before she could take it she again lost her senses. I went again and tried to bring her round but failed and she began to get occasional fits with terrible contracture of all the muscles. I then injected Hyocine Hydrobrom to reduce the spasms, but that too had very little effect. The fits used to recur every ten or fifteen minutes. After some thirty fits or so the uterine contractions also started and the os cervix was dilated two fingers, and there was lot of bleeding too. I thought that the fits might be due to toxæmia and thus I thought that the patient would get relief after the abortion as nature had already started the work. So I thought it better to bring on abortion instead of stopping it. I examined per vagina and felt a bunch of grapes. I removed it and found it to be a mole. Then I emptied the whole uterus and gave a douche. All these things were done, but the woman did not gain consciousness. Fortunately there were no fits during and till the uterus was emptied. I thought that the fits won't recur as the cause was removed, but unfortunately the fits started again after an hour and were more vigorous than before. I then felt the pulse to be very low and so injected saline thus to dilute the toxins and improve her condition and all these were of no use and the patient died. The woman was a third para and the two former pregnancies were quite normal, and this time too she had no repeated haemorrhages as are present in cases of Mole. The uterine enlargement also was just of 4 months and so there was no reason to think it to be a case of Mole till the vaginal examination. Can any reader say what the cause of the fits would be, and what would have been the cause to bring on the fatal termination,

TWO INTERESTING CASES

BY

S. SANKARARAMAN, M.B.B.S., CUDDALORE.

Eclampsia during the 3rd week of puerperium.—At 8 A. M. on 9-2-'28, I was called in to attend upon a case of fits in a woman, delivered normally 15 days back.

Previous History.—I pregnancy—delivered a female child 15 days back, the patient is aged about 20. The labour was a bit tedious and tonic doses of pituitrin were given to overcome the primary uterine inertia—otherwise normal—No temperature. Patient had her bath on the 11th day after delivery as is the custom among the Hindus. There was no swelling of the ankles and no epigastric pain during the later months of pregnancy.

Present History.—On the 16th day after delivery, patient had suddenly an attack of fits at 7-30 A. M., lasting for about 2-3 minutes. The whole body was shaking in jerks during those few minutes. At 8-15 A. M., the patient had a second fit. I watched it. It lasted for 2 minutes. The eyeballs were rolled in and screened up, the tongue was protruded out and retracted in alternately; the hands were undergoing clonic spasms with the fingers in the obstetric position; the body and limbs were thrown out in jerks; and the patient was comatose during and 15 minutes after the fit.

Physical examination—Alimentary System.—Tongue coated—otherwise normal.

Respiratory System:—Breathing hard; otherwise normal.]

Circulatory System:—Heart sounds rapid, pulse rate 140; tension high.

Genital System:—Uterus below the pelvic brim.

Urinary System.—Urine was drawn and albumin was present in large quantities.

Diagnosis:—Eclampsia.

Treatment:—8.30 A. M. Veratone P. D. & Co. $\frac{1}{2}$ c.c. subcutaneously was given and morphia $\frac{1}{2}$ gr. in 1 cc. of aqua was also injected.

8-45 A. M. Pulse rate fell down to 84 and the tension was considerably reduced. There were no more fits.

9-A. M. Soap and water enema given. Mag. sulph dr. IV in 2 oz of water given orally. The patient was given no food during that day, and she made an uneventful recovery.

The above case is of twofold interest. The eclamptic fit occurring in the puerperium blows up the placental and syncytial theories and places the theory of primary and secondary toxin theory on a firmer ground, and secondly eclampsia during the 3rd week of puerperium is very rare that it is worth recording.

A case of Tannic Acid treatment of Burns.—Baby aged one had by an accident poured boiling water over its left hand. Burns of the IInd and IIIrd degree. The burnt area was painted with cocoanut oil two days later (7-9-28). Finding that it grew worse and the child was crying and did not get sleep, the parents sent for me.

I cleaned the burnt area with Boric lotion, punctured the blebs and blisters and painted Tannic Acid over the area.

8-9-28. A thin coagulam had formed all over the area except over the fold of the wrist. Tannic acid was painted over the raw surface of the fold.

9-9-28. To prevent the child from scratching, the bandaged arm was tied to the edge of the cradle.

16-9-28. Wound had completely healed. The coagulam had fallen and the skin had grown.

PNEUMONIA

BY

S. B. SURTI, F.R.C.S., D.P.H., GULBARGA.

With reference to the two very interesting articles appearing in your esteemed journal of May 1928, I take this opportunity of expressing very briefly my opinion thereon. The articles, I refer to, deal with the pathology and treatment of pneumonia and the use of "Collosal Manganese" in the treatment of boils and carbuncles.

Regarding "Pneumonia", it seems to me that the author of this article in your journal has based his statement on information gathered from various books and in all probability has been following the line of treatment as suggested by the various authors of advanced medical literature on the subject.

From my own personal experience, I find that "Pneumonia" far from being a wretched disease is most amenable to treatment, provided it is properly tackled and the treatment

is undertaken in the very early stage or even at least before the stage of suppuration sets in.

In my hands a case of pneumonia has very rarely been fatal and I have met with nearly cent per cent of success, except in those cases which were brought to me after the pus had formed and delirium set in.

Pneumonia, as we all know, is inflammatory condition of the lungs due to the presence of septic organisms in general and pneumococci in particular. Hence our main endeavour, under such circumstances, should be to bring about a rapid absorption of the inflammatory products in the lungs, just as much as we would do in cases of inflammation elsewhere, and for this the following factors are absolutely necessary:—

(1) Perfect rest.

(2) Counter-irritation.

(3) Administration of Sodium Salicylate together with a moderate dose of aspirin with caffeine citrate or pyramidon with soda bicarb in order to bring about a reduction in temperature which is simultaneously accompanied by diminution in the inflammatory condition of the lung, thus relieving pressure from the heart and preventing further complications such as failure of circulation, onset of delirium, or tendency to suppuration which one finds usually in cases of neglected or improperly treated pneumomias cases.

(4) Oleum Eucalyptus together with a minimum dose of quinine bisulphate (just enough to act as an expectorant but not to produce symptoms of Cinchonism), is also administered; both of which drugs as we know are excellent expectorants bringing about loosening of the phlegm and they also act as powerful antiseptics in neutralising the toxins that circulate in the system.

(5) In cases of constipation a full dose of calomel is administered as early in the disease as possible, followed, if necessary, after twelve hours' interval, by a dram dose of magnesium sulphate mixed up with the Salicylate, Quinine and ol Eucalyptus, a mixture which I call "Influenza mixture" as I have found it very efficacious in cases of influenza also.

(6) As regards the specific line of treatment, I have not had any occasion to resort to it, but in my opinion, injections of Pharmasol or Collosal Manganese commencing with 2 cubic centimeters in an adult could be highly beneficial in aborting an attack of pneumonia much earlier than the usual period, for this preparation I have found to be very useful in checking the progress of inflammation and bringing about a speedy absorption of inflammatory exudate in any part of the body by its specific action on pyogenic organisms. In certain instances I have administered Iodeol one cc. every alternate day intramuscularly with great benefit.

(7) A combination of Potassium Iodide and creosote is very useful in the stage of resolution but in the acute condition these two drugs have not been of much value in my experience.

The following table shows at a glance the plan of treatment adopted by me in cases of acute pneumonia:—

Rest.	Counter Irritation.	Antipyretic. Line of Treatment.	Antiseptic Line of Treatment.	Specific Line of Treatment.
The patient to stick to bed all day and use bed-pan while attending the call of nature till the temperature goes down to normal and remains continuously normal for three days.	Rubbing the chest all over with Liniment Turpentine and keeping the chest warm by means of a flannel binder.	Re:— Asprin gr. v Caffein Citras gr. iii in cases of adult, morning and evening if the temperature remains above 102°. (Children to be given proportionate dose.) If the heart is weak, instead of aspirin I administer the following draught. Re:— Pyramidon gr. iii Rum ozi Sodabcarb gr. xx Aqua ad. ozi One dose to be administered 2 cc. a day if the temperature rises above 102°.	Soda Salicylas gr. xxx Quinine Sulphas gr. iii Ol. Eucalyptus m. xv Spt. Ammonii aromat m. 60 Mucilage 21 Aqua ad. oziii oz. T. D. S. before meals. (2) Calomel gr. iii Sodabcarb gr. x at bed time. in cases of constipation followed, if necessary, twelve hours later, by Magnes-Sulphas oz. i mixed with one dose of the influenza mixture.	I have no personal experience of it, but in my opinion Injection of Manganese Pharmasal (A.F.D.) 2 cc. on the 1st day followed by 1 cc. of the same every alternate day would be of immense value in aborting the disease. Iodeol injections 1cc. intramuscularly in certain very obstinate cases have been given by me every alternate day with great benefit. The maximum amount reached 4 ccs. during the whole course of the disease in a couple of cases that I have treated.

It would be seen from the above table that I seldom resort to heart stimulants, but in cases of great urgency I prescribe a mixture consisting of Calcium Chloride, gr. 20.

Tinct Strophanthus m. v.

Liq Strychnine Hydro-

chloride m. iii.

Rum ozp.

Aqua ad oz. i

To be given every 4th hour, in cases where the circulation is very low and the patient is in a state of prostration.

As regards diet, milk and sago with sugar (nearly 4ozs in the whole day) is given as a rule every 4th hour and in cases of well-to-do class of patients I advise the use of Mellin's food or Sanatogen as a variety as well as tonic.

With this line of treatment I have noticed in many cases, stage of resolution setting in much earlier than usual and when the patient commences coughing up phlegm freely and easily, I resort to stimulant Expectorant mixture together with Potassium Iodide and Creosote.

Referring to the 2nd article viz., the use of colossal manganese in the treatment of boils and carbuncles, I have given this medicine (in the shape of the Anglo French Drug Company's pharماسol manganese), an extensive trial in all forms, of inflammatory conditions, such as salphingitis, septic tonsillitis, Guineaworm infection, septic bronchitis, in chronic intractable sinuses and as a prophylactic against pus formation immediately after operations on Hydrocele, Hernia and breast tumours.

I inject the drug intramuscularly in heroic doses (2 ccs at a time) to start with, followed by 1 cc of the same every alternate day till six tubes are given in all. I must say that I have had very happy results on several occasions, and undoubtedly this drug is deserving of constant use in all septic cases or even as a prophylactic in those cases which are likely to suppurate after operations.

ASCARIA LUMBRICOIDES—A CAUSE OF HICCOUGH

BY

S. V. ACHARY, L. M. P.

Patient:—Hindu female, aged 20 years,

On 10-6-28 at dead of night she was brought to me with severe hiccough.

History:—She had suffered from the same complaint, but a little milder, some 10 days back which ceased of its own accord the same evening. This time she had been suffering from it since four days.

Clinical History:—Appetite dull and bowels constipated since two days. She used to have constipation now and then.

I did not examine the case for further details the same night, but asked her to be brought the next morning.

Treatment:—I gave her the following mixture in two doses, the second to be repeated an hour after the first.

Rx:—

Soda Bicarb grs. xv.

Potassium Bromide grs. xx.

Tr. Belladonna m. x.

Tr. Digitalis m. v.

Aqua chloroform ad oz. ii.

Rx:—Magnesium sulphate dr. iv.

Trias Pulv. one

To be given in the morning.

The first dose of the above mixture was given in my presence and the hiccough stopped instantaneously.

Diet:—Buttermilk and rice.

Her relatives came to me the next morning (without the patient) with the history that she was relieved of her trouble which did not appear again till the morning. No medicine was given after.

After three days she was brought to me again with hiccough of the same severity as before.

I examined her tongue and conjunctiva which were pale. Pulse was a little feebler than normal.

I thought that ascarides were at the bottom of the trouble and prescribed:—

Rx.—Santonin grs. iii
Calomel grs. ii
Soda Bicarb grs. x
Fiat-pulv. one

To be followed by castor oil afterwards.

She passed six round worms and her trouble was at an end.

In this case the hiccough is of an irriative type, the worms having irritated the gastro-intestinal mucous membrane; the afferant impulses being carried to the respiratory centre through the afferent fibres of the vagus and the efferent impulses having reached the diaphragm through the phrenic nerve, causing the intermittent spasms, and the laryngeal branches of the vagus to the glottis, causing its sudden closure as air is breathed in rapidly.

I know that this case would be of little interest to my fellow brethren, but cite this only with the hope of reminding them of one of the manifold ways in which round worms manifest their presence in us.

"A CASE OF ALGID TYPE OF MALARIA" (?)

BY

A. K. GHOSE, M. O. AMBARI T. E, CARRON P. O.,
JALPAIGURI DT.

On the 2nd July I was called in to see a patient at 5-30 P.M. He was a hillman of about 24 and of good physique. On the 18th July he worked the whole day in the factory and went back to his hut at 5 p. m. and in the evening he got high fever, accompanied by profuse diarrhoea.

I found him in the following condition:—

He was intensely prostrated within this short time and passed watery motions frequently. Temperature was 106° F., respirations hurried; no pulse could be felt at the wrist, the brachial pulse was feeble; spleen easily felt and was 2 fingers below the costal margin; he was semi-conscious and responded when sharply spoken to; no suppression of urine, it only diminished in quantity. He suffered from malaria previously and was treated with quinine.

I clinically diagnosed the case to be one of malaria of algid type. There being no microscope I could not examine his blood,

Treatment: No medicine could be administered by mouth. I at first, injected camphor in ether 1 cc. and waited for ½ hour but there was no improvement in the condition of the pulse. Then as a last measure I thought of giving intravenous injection of quinine. 10. grs of quinine bi-hydrochlor was dissolved in 15 c.c. of normal saline and ½ c.c. of Sol Adrenalin (P. D.) was added to the solution. The solution was then injected very slowly but before I pushed half the amount, the patient became very restless and began vomiting, so I stopped the injection for a few minutes and finished it when he was a bit calmed. Just after the injection the patient again became restless and there was violent shivering all over the body but it lasted only for a few minutes.

I waited there for one hour but no appreciable improvement could be noticed either in his general condition or pulse. Continuous rectal saline was given along with glucose.

I came back to my quarters at 8-30 P. M. Then at about 11 P. M. I was informed that the patient was gasping for respiration. I went there and found his condition hopeless. He died at 11-30 P. M.

Conclusion:—This case ended fatally within 30 hours. I think owing to its being reported very late, i.e., about 24 hours after the onset the I. V. injection of quinine failed to produce any desired effect.

Can any reader of this Journal suggest any other line of treatment in such cases?

SOMETHING ABOUT "A CASE FOR DIAGNOSIS"

BY

KALI GATI BANERJEE, M.B., SURI.

The case published in the August issue of the Antiseptic is most probably one of streptococcal septicaemia. If the place is the abode of Filariasis, we can safely conclude it was Filarial (?) septicaemia—(it is sure streptococci run in blood in the sheath of microfilaria). Reasons are:—

(1) Fatality within 3 or 4 days

(2) Marked Toxaemia as evidenced

From (a) Delirium (b) Tremors (c) High fever from the onset.

Pain in shoulder joint and other parts may suggest filarial infection. It will not be quite out of place to suggest that Antistrepto serum and Iodine injection at an early period might have mitigated the suffering.

Next probability is that of Encephalitis Lethargica, Meningeal form of Influenza comes next. Syphilitic Meningomyelitis may be possible, but the previous history may be of some aid in the diagnosis.

Let me now cite 2 more parallel cases.

Case 1.—A Hindu widow aged about 42 and intermittent fever for 2 or 3 days. One night (on the 4th day)

She had severe rigors with fever and extreme convulsions. The woman was extremely irritable—she danced—threw her arms and legs all about. Nothing could quiet her down. Next morning at 10 A. M. her condition was as follows:—

Heart—first sound low, pulse—140

Temp.—104°

Nervous system—Patient subconscious—but extremely irritable.

Respiratory system—nothing particular—34 per minute.
Reflexes—Kneejerks.

I treated the case as a case of Malignant Malaria, but the patient succumbed the next morning. What can be the diagnosis?

2nd Case.—A Hindu school boy aged about 16 had pain in back and chest for some days. He suffered also from 2 abscesses one in the buttock, and the other just in the mid line over the sacral region. He was constipated for a day or two and one day he vomited several times. Next morning he had fever and he complained of extreme pain in the right side of the abdomen (mostly in the right iliac fossa) and nausea. The same afternoon he got delirious and the attending Physician prescribed him some calomel powder. The following morning at 8 A. M. I saw him as follows:

Temp—101°

Pulse—failing,

First Heart sound at mitral area very low

Pt—Subconscious

Reflexes—normal

Tongue—Sordes all over

Rt. iliac fossa—(1), Rigid.

Abdomen—tympanitic

Bowels—inactive to calomel previously prescribed.

Urine—Retention till 11 P. M.

Every means was adopted to restore his pulse. Camphor in ether 2 hourly, Digitalin and Strychnin 4 hourly, Stropanthin-I.V.—Adrenalin and Pituitrin. I. M. But his condition got worse every hour. The pt. was catheterised at 1-30 P. M. and pure blood came out of bladders. Blood-film showed an increase in poly-morpho-neuclears. The student succumbed at 9-30 P. M. The Civil Surgeon was consulted in the morning and just before death his diagnosis was "Influenza" in the morning and peritonitis in the evening. I think it to be a case of septicæmia probably due to streptococcal Hemolyticus—the sites of wounds showing typically the sign of Erysipelas and the dead body bleeding profusely from the nose—when he was carried for funeral pyre. I invite the opinion of experienced medical men as to the diagnosis.

NOTES ON TWO CASES OF LEPROSY

BY

K. KOCHUNNY MENON, SUB-ASSISTANT SURGEON, ANTHIKAD DISPENSARY, COCHIN STATE.

One V. Thoma aged 56 and his son, Mathu, a school boy, aged about 18 came to me for treatment for Leprosy first on the 16th March 1927. The former said that he had been treated for the same a few years ago by a well-known Doctor, and all the signs completely disappeared by a few injections of Sodium Gynocardate; but that they reappeared again a year now in an aggravated form and he wished to renew the treatment. On examination, closely distributed, red and erythematous nodules were found all over the face, and macular eruptions looking like secondary syphilitic rashes on the trunk and limbs. On the outer aspect of right arm were seen some anæsthetic patches here and there. The case was evidently one of mixed variety. The duration of the disease is about eight years. There was no family history of leprosy, nor any syphilitic history for himself. He underwent all sorts of native and allopathic treatment since its second appearance, and at last, went to his former doctor and got a prescription for the injection of Hydnocarpus wightiana solution, and a letter to the writer for carrying out the same. He availed of this opportunity to take his son also with him for treatment. The only manifestations of the disease in him were a thickened right ear and an irregular, reddish and erythematous patch of the size of a crown on the right cheek. It is now about a year since the disease was detected in him, and ever afterward she too has been under some native treatment like his father without any improvement. The notes of the cases are given below:—

Patient's name.	Date of Injection.	Name of drug used.	Whether intramuscular, intravenous or subcutaneous infiltration.	Reactions noted.	Remedies employed and used.
Thoma and Mathu.	19-3-27	Solution of Hydnocarpus wightiana.	1 c. c. Intramuscular.	Nil.	
Do	20-3-27	Do	1 c. c. Intramuscular.	Nil.	
Do	27-3-27	Do	1 c. c. Im.	Nil.	
Do	1-4-27	Do	1 c. c. Im.	Nil.	
Do	5-4-27	Do	1 c. c. Iv.	Nil.	
Do	9-4-27	Do	1 c. c. Im.	Nil.	
Mathu.	12-4-27	Hydnestryle	$\frac{1}{2}$ c. c. Im.	"	
Thoma.	13-4-27	Do	Do	"	
M.	6-4-27	Do	1 c. c. Iv.	"	
T.	17-4-27	Do	Do	"	
M.	19-4-27	Do	Do	"	
T.	21-4-27	Hydnestryle Hydneocreol	$1\frac{1}{2}$ c. c. Im. $1\frac{1}{2}$ c. c. Subcutaneous infiltration.	"	Hydneocreol on extensor surfaces on each limb at a time.
	22-4-27	Hydnestryle	$1\frac{1}{2}$ c. c. Im.	"	
	25-4-27	Do	2 c. c. Iv.	Had suffocating sensation, cough, shivering etc. lasted about $\frac{1}{2}$ hour. Said that the eruptions (macullor) appear slightly diminished in the morning and evening hours, mostly at night and become more prominent during moon-times. They appear diminished also when fully perspired.	Injected m. v adrenalin solution 1 in 1000 at once.
M.	26-4-27	Nil.	Nil.	The local reaction for the last injection. Tenderness, slight swelling and pain at the sight of injection. Applied Boric fomentation and adrenalin chloride	

Continued on next page.

Patient's name.	Date of Injection.	Name of drug used.	Whether intramuscular, intravenous or subcutaneous infiltration.	Reaction noted.	Remedies employed and used.
				solution iii in m. 30 of Normal saline injected around the sides. No intravenous injection given to-day as the vein was found to be too flabby and the patient restless with pain on the other arm.	
Mathu.	27-4-27	Hydnestryle	$\frac{1}{2}$ c. c. Iv.	Immediate chocking sensation and irritative cough lasted for 15 minutes.	Adrenalin m. v injected. Rash. A circumscribed Hyperæmic area of about $1\frac{1}{2}$ in. in diameter around the area of I. m. injection at 6 ft. deltoid region.
Thoma.	29-4-27	Hydneocreol	$1\frac{1}{2}$ c. c. S. I.	Reported slight fever, the night of last injection.	
M.	30-4-27	Do	$\frac{1}{2}$ c. c. S. I.	Nil.	Tenderness and swelling in the arm subsided, but hardness still persists.
T.	3-5-27	Hydnestryle	1 c. c. Iv.	Cough.	
M.	Do	Do	$\frac{1}{2}$ c. c. Iv.	Nil.	
M.	6-5-27	Hydneocreol	1 c. c. S. I.	Nil.	
T.	8-5-27	Do	$1\frac{1}{2}$ c. c. S. I.	Nil.	The boy is getting leaner. "Palol" prescribed. Said he was feeling weaker and weaker, has been having burning pain and heat in the whole body especially at the back and numbness in the soles of the feet. Expressed his desire to change

Continued on next page.

Patient's name.	Date of Injection.	Name of drug used.	Whether intramuscular intravenous or subcutaneous infiltration.	Reactions noted.	Remedies employed, and used.
M. M.	15-5-27 17-5-27	Hydnestryle Hydnocreol	$\frac{3}{4}$ c. c. Iv. 1 c. c. S. I.	An abscess formed on the left leg.	allopathic to native treatment again and to go to one native vaidian at Ferok, Calicut. Never turned up afterwards for treatment; but sent his son to continue injection.
M. M.	31-5-27 4-6-27	Do Hydnestryle	1 c. c. S. I. 1 c. c. Iv.	Nil.	Unable to walk to the Disp. for injections. Hence course interrupted. Abscess cavity washed and dressed with Boric and citrin ointment.
M.	8-6-27	Hydnocreol	1 c. c. S. I.		Fungus in Hydnestryle solution. Hence sterilised before injection and the cough and irritation of the Bronchial passages were much lessened or almost negligible.
M.	26-6-27	Hydnestryle	$1\frac{1}{4}$ c. c. Iv.	Nil.	By this time the thickening of the ear has completely disappeared and normal sensation returned. The red patch on the cheek has almost resumed the normal color of the adjoining healthy skin.
"	30-6-27	Hydnocreol	$1\frac{1}{4}$ c. c. S. I.	"	
"	4-7-27	Hydnestryle	$1\frac{1}{4}$ c. c. S. Iv.	"	
"	11-7-27	Hydnocreol	$1\frac{1}{4}$ c. c. S. I.	"	
"	18-7-27	Hydnestryle	$1\frac{1}{4}$ c. c. Iv.	"	

Continued on next page.

Patient's name.	Date of Injection.	Name of drug used.	Whether intramuscular intravenous or subcutaneous infiltration.	Reaction noted.	Remedies employed and used.
"	22-7-27	Hydnocreol	$1\frac{1}{2}$ c. c. S. I.	"	Hydnestryle exhausted.
"	26-7-27	Do	Do	"	
"	6-8-27	Do	Do	"	
"	15-8-27	Do	2 c. c. S. I.	"	
"	22-8-27	Do	Do	"	Has not turned up since.
"	31-8-27	Do	Do	"	
"	14-9-27	Do	Do	"	

N. B.—The abbreviations are used for convenience sake. T. stands for Thoma; M. = Mathu; Im = Intramuscular; Iv = Intravenous; S. I. = Subcutaneous infiltration.

The cases cited here are, of course, too small to permit of any conclusions being drawn from them either way. The object of these notes is merely to place before those interested in the investigation of this disease certain facts observed by me during the course of treatment with a view to elicit correct explanations and appropriate remedies for them. They may, in a way, influence the line of treatment also. This is my only apology for publishing these notes, meagre as they are. I have as far as possible, endeavoured to follow the lines of treatment* as recommended by Dr. Muir, the research worker on Leprosy, Calcutta School of Tropical Medicine and Hygiene; and certain circumstances such as the indifference and irregularity of the patients, the longer interval occasioned by the reactions and the like, if given sufficient allowance for, I may say that I have strictly adhered to his instructions. When the two boxes of solution of Hydnocarpus wightiana which the patient had brought with him were exhausted, he wanted the medicine to be changed because, he said, he did not find such speedy

* Please see the booklet named "Stanistreet Preparations for the treatment of Leprosy" pages 24, 30 and 32.

improvement with this as with Sodium Gynocardate on the first occasion. I too preferred a change and got down from Stanistreet & Co., Calcutta Hydnestryle and Hydnocreol which have been so much extolled and reported to have been prepared according to the formulae of Dr. Muir.

Now, it will be seen from a close examination of the table that there was no reaction at all in the case of solution of Hydnocarpus wightiana in both the patients when given intravenously but much weight cannot be attached to it in the face of the fact that the dose was never increased from 1 cc. at any time. When Hydnestryle was increased to 2 cc. and Hydnocreol to 1½ cc. in the nodular case, reactions began to appear. It was immediate in the case of Hydnestryle, a little remote and lasting in that of Hydnocreol. The choking sensation and irritative cough were very troublesome and sometimes even alarming with Hydnestryle. Though they could be properly controlled by a hypodermic injection of adrenalin chloride and though they last only for a few minutes, the patients seldom like the experience a second time. The suffocating feeling and cough, it is noticed, were more unbearable to them when in the recumbent position than in the erect posture, and they have every time struggled to get up from the table immediately after the intravenous injections. These unpleasant effects may be due to the oil globules and probably also to the fungus contained in the solution introduced into the venous blood which, while passing through the minute arterioles in the lungs, meets with some resistance there with the result that the flow of blood is retarded, oxygenation delayed and nerve filaments irritated. Whilst Hydnestryle fails to meet with a warm reception on this ground, Hydnocreol is looked upon with disfavour on a quite different ground in that it causes a burning pain and heat all over the body even for days together. This, I think, is due to the creosote contained in it; for, I have often heard it complained of by some patients subjected to creosote mixture for other diseases. Probably camphor also might contribute to it by its stimulant action. If these are added merely as preservatives, any other substitutes devoid of such unpleasant effects would be less unwelcome guests to the house of flesh and blood invaded by leprosy. If these, on the other hand, are mixed with it on the expectation of their exerting any deleterious influence on the *Lepræ bacillus*, it is doubtful whether that purpose will be served in the small dilutions in which these reach the tissues when mixed up with the blood. Whether the numbness is due to creosote, or it is only a late manifestation of the involvement of peripheral nerves is a matter for conjecture. If it is generally felt by all patients taking or having Hydnocreol in initial stage of the disease, it surely loses much of its value. In the case of the boy, Hydnestryle produced severe local reaction when given intramuscularly. He tolerated well a few doses of the same intravenously; but latterly ½ cc. gave him the unpleasant choking sensation and irritative cough that his

father had. I do not know whether it is sympathetic; at least I hope not. When the bottle was examined after these experiences, the solution was found to have some fungus floating in it at the bottom and a little below the surface. Thenceforward every time the solution used to be sterilized before use, and no such serious ill-effects noticed since then. This shows that Hydnestryle does not keep well also.

Every increase of dose of Hydnocreol is dreaded by the patients, perhaps due to the after effects, and the too frequent needle punctures that it occasions; and by the time 2 cc. is reached, the second patient also left treatment without a notice. Another fact observed is that after taking about 18 injections the boy became leaner which caused some anxiety to him and his parents. Whatever may be its significance, there is no good advising them on the point. Other complaints generally accompanying the disease were attended to as they occurred. The boy's digestive power was very weak and he was put on carminative mixture for some time; while the digestive power of the father was very strong. Internal administration and frequent external applications of pure chaulmoogra oil were made along with the injections in both the cases.

Against all these drawbacks may be set the single fact that the result of treatment was greatly encouraging in the case of the boy in whom the ear lesion completely disappeared in two months' time, and the condition of the patch on the cheek considerably improved. In the case of the father, the disease was far advanced and the period of treatment too short before which he grew impatient and left it, so that no opinion can be expressed with regard to the efficacy of the treatment. He, being fascinated by the loudly trumpeted miracles of a Velan at Calicut side, went to him and returned with the assurance of a promised cure with a cost of Rs. 60 for preparing a medicine—a gold compound. When he saw me on his return, after remitting half the amount in advance, and told me of the particulars, I advised him not to waste any more money that way; but to utilise it more usefully by taking a trip to Calcutta and to consult Dr. Muir, the Specialist on the subject, for treatment or a final opinion. This he heeded not, though he could well afford to, and in spite of such inducements as the offer of letters to some friends there, and his case notes to Dr. Muir himself. He tried that miraculous cure, and is none the better for it now.

A curious fact observed by this patient himself in his case merits mention here. It is the diminution in the size of the macular eruptions in the morning and evening hours—mostly at night—and their prominence during noon times, etc. This requires some explanation at more competent hands. That they are diminished when fully perspired can be explained as the influence of some diaphoretic action such as that result from physical exertion or from the surroundings of high atmospheric temperature; when, more water is extracted from the blood and

its volume diminished in the capillaries in the affected areas with consequent thinning of the macules. Can it be that the first phenomenon is caused by the contraction of the smaller blood vessels, resulting in some little shutting off of the blood supply to the cutaneous surfaces in the morning and evening hours by virtue of their being generally very cool? If that is so, the reverse condition of the blood-vessels will explain the prominence of the eruption during noon hours which are comparatively warmer and when the capillaries become dilated, and more blood together with more *Leprae* bacillus is brought to them so that the skin areas of eruptions are raised up. In respect of the period of treatment viz., 1 to 2 years prescribed by Dr. Muir, there are some practical difficulties which cannot be easily overcome. Not one in hundred will have the patience to take in even the sweetest medicine for one to two years as a daily routine in life, for, such a life is devoid of its charm and pleasure, and is not worth living. Much less will he have the patience to use bitter and nauseating drugs internally and externally, and to submit to frequent needle pricks continuously for two years; and that, with no sure guarantee for a cure. Further the treatment to be effective has to be carried out on inpatients in a hospital, and is not fit for out-patients over whom the medical officers have no control. Even the most willing patients attending a private clinic will sometimes find excuses for non-appearance. Hence, unless the period is shortened without allowing the cure to be affected in any way, the treatment is not likely to be popular. But how to do it is the problem that is to be solved by the workers on the subject. Secondly, until a way is found for a much shorter period of intensive treatment with a more potent, but harmless compound, the present preparations may be so modified as to reduce their ill-effects to a minimum. And thirdly, whether the inoculation of other organisms that could be controlled by specific drugs will have any influence on the bacillus *Leprae* or not is well worth investigating. These are some of the humble suggestions that I wish to offer. Incidentally it may be said here that the number of lepers on this side of the West Coast is legion. Not less than one in twenty that come to this Dispensary is a leper, unsuspected as such by himself, or by others, and even by some inexperienced medical men. Numerous such cases are met with also in the villages around, passing unnoticed. Well-to-do and respectable families to which this disease seems to have a greater predilection are the one more honoured by it having one or two inmates at all times holding possession of this precious jewel. Even with known cases of Leprosy, the people here seem to have no scruple to mingle freely. Ringworm is not a rare accompaniment of Leprosy; many a case passes for ringworm, and that, perhaps, accounts for its non-attention and non-recognition.

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The Antiseptic

DECEMBER, 1928.

OPHTHALMOSCOPE AND THE PHYSICIAN.

The eye is a very small organ but it fulfils a most important function as regards the well-being of the individual and behaves like an index to the state and condition of the remote parts of the body.

Toxins produced in various parts of the body and micro-organisms have a direct action on the eye. The Uveal tract is the one most often affected. Syphilis, Gonorrhoea, Pyorrhoea, suppuration in the gall bladder, and intestinal putrefaction, leave their unmistakable impression on the uveal tract. Retinal changes are also very characteristically present and are chiefly associated with affections of the circulatory system.

Haemorrhages in the retina are very commonly met with. They vary in size, position and depth, and may be produced by many causes. They are usually very extensive at the posterior pole and to the temporal side, rather than at the nasal side. In subhyloid variety (*i.e.*, situated between the nerve fibres and the internal limiting layer), they are usually large with a convex lower border and a horizontal upper border. Flame-shaped haemorrhages are seen in those cases where they take place between the nerve fibres, the distribution of which is by radiation from the optic disc. Those occurring in the deeper layers are round. The colours of these haemorrhages often give a clue to the duration of their existence, and the area involved. Thus red when recent, slaty in portions when there are extensive extravasations, and mottled, red and white when the haemorrhage is becoming absorbed. Owing to the continuity of the subarachnoid space of the optic nerve sheath with the subarachnoid space in the brain, it is usual to find the optic

sheath distended considerably with blood, when hæmorrhage occurs in the anterior fossa of the skull due to a fracture. Similar conditions are produced due to rupture of an aneurism of the anterior cerebral artery and to spontaneous meningeal hæmorrhage.

The retinal arteries take their share in most of the cases of arterio-sclerosis. The first change in the retinal arterio-sclerosis is the increase in the brightness of the reflex from the retinal arteries which have often been described as the "copper wire" arteries. In this condition there is a thickening of the middle coat and the appearance is of value in vessels of the 2nd and 3rd bifurcations from the optic disc and more so when the central light streak has a beaded appearance. Due to the thickening of the coats of the arteries, in places where they cross the veins the latter is obscured for some distance on each side of the blood column in the artery. Normally it is not so. Sclerosis of high degree often manifest by the appearance of the distinct bend or kink of the veins. Irregularity of the lumen of the vessels is observable. In this condition retinal hæmorrhage is not an uncommon occurrence but they are usually small and flame-shaped. Exudates in the retina occur sometimes if the retinal conditions persist for some days. These exudates are only results of local vascular disease of the retina and not due to the effects of toxins as is usually found in Nephritis. Even in the late stages of the disease one scarcely finds the bright white spots of the exudate greater in size than the cross section of a normal vein. Stellate exudates sometimes make their appearance at the macula or midway between the fovea and the disc. These exudates change very slowly but may completely disappear. During the late stage of the disease white cords are produced marking the position of the original artery, and in a few cases pipe stem appearance for a short distance in the vessel is evidenced.

It has been found by actual experience and observations by many, that the state of the retinal arteries is a guide to the condition of the cerebral arteries. In cases of atheroma of the aorta or the great vessels the retinal vessels do not show any change. Sometimes the circulation within the eye is entirely cut off by sudden spasm of the artery and the patient becomes blind. If the stoppage of blood is prolonged coagulation necrosis takes place and the characteristic cherry red spot at the macula surrounded by a broad zone of

white may be seen. This condition may clear up within ten days or more and a completely atrophic disc may be found.

Cases of Thrombosis of retinal vein are sometimes met with where there is a rapid loss of sight. The cause of this affection may be attributed to angio-sclerosis of the trunk of the ophthalmic vein near the cribiform lamina. Ophthalmoscopically one can notice the engorgement of the veins and the numerous spots of hæmorrhage mostly in the nerve fibre layer. These may be absorbed but the sight never becomes better afterwards. A central or a para-central scotoma usually results. Sometimes the only sign of retinitis may be evidenced by the appearance of oedema of the disc. It may be marked. This may affect only one eye. The differential diagnosis in such conditions becomes very difficult.

In cases where retinal conditions are very marked one often sees detachment of the retina of various degrees depending upon the severity of the local condition. This is more often observed in cases of pregnancy and severe anasarca. When detachment occurs patients very often complain of subjective symptoms, such as flowers or butter fly-phosphemes, or all objects may appear coloured blue. In ordinary cases reattachment is the rule, though it seldom occurs when due to syphilis or other specific causes. As a first sign of reattachment one finds the restoration of calibre of the vein to normal, or both arteries and veins may become much smaller than normal. There are irregular pigmentary changes scattered about the fundus in the late stages of the disease.

Diabetes is another condition where many interesting ocular changes are produced. Though it is doubtful whether diabetes alone produces retinitis without any other associated factor as high blood pressure etc., yet there are some special features noticeable in the retina which are decidedly suggestive of diabetes. Foster Moore classifies them as follows:—

1. Patches of retinal exudates in diabetes tend to have a sharply cut edge and are often soapy and waxy looking. They are irregularly distributed and sometimes form an irregular ring well-wide of the macula.

2. The star figure is uncommon, but if present it is not so regular.

3. Soft edged cotton wool patches do not appear and retinal oedema is never marked nor does detachment occur.

4. Haemorrhages are usually rounder because they occur in deeper layers.

5. Retinal pigment spots, which are not rare in the late stages of renal retinitis are not seen in diabetes. Among other eye affections in diabetes, Iritis, Oedema of the mamelons as evidenced by the Slit lamp, insufficiency of accommodation, and cataracterous changes in the lens may be mentioned.

Thus the value of ophthalmoscopy in general practice cannot be underestimated, as it gives a fund of information about the general condition of the body. When it is properly performed it becomes a useful guide to the Physician, in diagnosing very many diseases, with a fair knowledge as to their prognosis.

In short, an Ophthalmoscope and a dark room are as useful to the Physician, if not more, as a couple of test tubes and apparatus for urine analysis.

CURRENT TOPICS.

SURGERY.

Joint Tuberculosis.—Russell A. Hibbs and Alen De F. Smith, Med. J. Australia, 1810, June 4, 1927. The general belief that joint tuberculosis nearly always starts in the bone and invades the joint secondarily, is probably untrue.

The study of the tissues from early operations on tuberculous joints at the New York Orthopaedic Hospital shows that in the knee joint, at least, the process usually begins in the bone—and in these cases the diagnosis is very difficult during the first two years, and is often missed—until late in the disease.

The results of the difficulty in making an early diagnosis are:

1. Many cases go untreated until so far advanced that a cure is difficult.

2. Many non-tuberculosis cases are subjected to the discomfort and expense of the standard treatment for tubercular joints.

3. Reports of the results of conservative treatment of tuberculosis joints are unreliable.

It is the custom at the New York Orthopaedic Hospital, when a positive diagnosis cannot be made, to do an exploratory operation, and remove portions of synovial membrane for laboratory examination. The incision is then closed without drainage.

No suspected joint should ever be immobilized until a positive diagnosis is established. Immobilization soon produces muscle wasting, limitation of movement and decalcification of bone, which obscure diagnosis.

Heliotherapy does not, in the authors' experience, cure joint tuberculosis. Permanent cure is obtained only by absolute elimination of movement from the joint by arthidesis.

Hospitalized under the most favourable conditions for a period averaging six years, twenty per cent. of knee cases apparently recovered, with a fair range of motion. Hip joint cases showed much worse results. It is felt that so small a chance of recovery is not worth the sacrifice of such prolonged treatment to the average patient.

A spine can be fused at any age. The knee joint can be arthrodesed in all cases at six years, in some at four. Arthrodesis gives seventy per cent of cures in tuberculosis of the spine and between ninety and one hundred per cent in knees. The average period of hospitalization has been reduced to eighteen months.—J. O. S. M. A.

Practical Treatment of Eczema:—Prof. V. Kling-muller. Zeitschrift für ärztliche Fortbildung November 1, 1928. When the skin becomes oversensitive to any kind of endogenous or exogenous irritation, it does not tolerate even mild or usual irritations any longer. A typical example of this is the case of a wash woman who becomes incapable of carrying on her work when her skin has once become hypersensitized through the use of a new powder, gout, nephritis, diabetes, etc.

Of great importance is the removal of all scales, crusts, pus, and salves with a benzine oil or a wet dressing of camomile tea, or a 3 per cent. boric acid with $\frac{1}{4}$ per cent. recorcin. The general mistake is to use too strong lotions. It is stated that when an agent does not cure an eczema or bring it to a halt in 3 days it is useless. When the eczema is intensive he recommends the cleansing bath with the addition of 50 cc. of balnazid (mérck) to be given twice each week. In an

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teria and toxins, the physician can leave his patient with his mind at rest about further recurrence of the symptoms.

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THE ANTISEPTIC.

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operators prefer for this purpose the use of the ultraviolet. This takes less time and has bactericidal effect also, and in some cases may have distinct advantages over the other. Body radiations will have added value in these cases with crops, since the effect upon the calcium content of the blood is recognized. More than anything else this would seem to be valuable, largely from this standpoint of activating the blood calcium. This thought would seem to be the logical outcome of the empiric practice of giving some calcium preparation in days gone by.

Another method in use for aborting boil formation from inflamed pimples or what not, is by the use of a needle attached to the ouidin terminal of the high frequency machine and allowing a short spark play upon or into the top of the incipient boil, which will practically dessicate it and destroy its activity. This treatment may be followed by radiant light and heat to relieve the inflammation. If this is not used and the case is seen prior to pus formation applications of static brush discharge will allay the inflammation and act also as a marked sedative to the pain. This may be applied for at least ten minutes for best effects.

A method used by some is that of ionization. A small pad soaked with a half or one per cent. solution of zinc sulphate is placed over the boil, this being attached to the positive side with the negative attached to a large dispersing pad applied over the abdomen. The current dose should be about five milliamperes and given for five minutes. This will often abort the boils. Another method when pus is forming and surgery is not allowed, is by intensive radiation of light and heat until the boil is softened and then follow with suction from the apparatus generally used, or the ordinary cups when the suction apparatus is not available. It is said that pus will flow freely and the result is good. I have had no experience with this method, but there are cases no doubt in which it may be good practice. My preference is to open freely and then use the light and heat together with the brush discharge.

CARBUNCLE.

This type of local infection treated in its early stage, when an active hyperaemia may be produced by radiant light and heat, and this followed by the ultra-violet radiations. If intensive and sufficiently long, with the surrounding skin protected, these radiations will often abort the carbuncle extension. If this is not successful or the case is seen after pus formation

has started, free incisions as now practised will be called for, or if preferred, dessication by the use of the oudin current from the high frequency machine may be resorted to, but in either event, the radiations are necessary, and with this plan there should be a cleaning out of pus and debris, so that the hyperæmia secured will have a better chance of action, and an extension of the infection prevented. Following the heat and light, ultraviolet radiations can be used to advantage, or the brush discharge or both. Some prefer the suction method for carbuncles as with boils, since it is found that the "core" will come out readily following these radiations, and the dread of surgical intervention is obviated.

It is always good practice to take laboratory tests during treatment of carbuncles, particularly of the blood and urines. Such tests at the first examination are advisable to locate possible systemic faults, for like boils, carbuncles are sometimes, local manifestations of systemic conditions.—W. M. T.; October, 1928.

Resuscitation by Intracardiac Injections of Adrenaline. (*Ugeskrift for Læger*, August 2nd, 1928, p. 741) has given intracardiac injections of adrenaline in three cases, in two of which the heart was made to beat again, but only momentarily, the condition of the patient being incompatible with life. The third case was that of a man, aged 81, on whom suprapubic cystostomy was performed under lumbar anæsthesia for enlargement of the prostate. Towards the end of the operation he collapsed completely, pulse and respiration ceasing. Through a needle inserted in the fourth intercostal space, along the upper border of the fifth rib, and passing obliquely upwards and inwards, 1 c. cm. of a 0.1 per cent. solution of adrenaline was injected. Within about two seconds very violent heart beats began, the face became flushed instead of grey, and the respiration returned, being natural and deep. After making an uneventful recovery during the following fourteen days he suddenly collapsed and died. From a study of the literature the author concludes that recovery may be effected by this means even after the heart has ceased to beat for ten minutes; recoveries after a longer interval are very rare, and there is no record of a successful resuscitation after an interval of twenty minutes. Until 1925 about thirty cases of resuscitation with intracardiac injections of adrenaline in human beings

had been recorded, permanent success being achieved in about half this number. The survivors showed no permanent ill effects, and even in the cases which terminated fatally necropsies brought to light no trace of the injection; but in some cases the injections were followed by transitory disturbances of the nervous system, such as epileptiform twitchings. Of all the drugs used for this purpose, including camphor, strophanthus, and extracts of the pituitary body, adrenaline would seem to be by far the most effective.—B. M. J. Nov. 1928.

Treatment of Empyema following Pneumonia:—H. Binney (*New England Journ. Med.*, August 30th, 1928, p. 410) describes the principles underlying the modern treatment of empyema. Realization of the fact that the mediastinum is not necessarily a rigid partition, and that pressure changes in one pleural cavity may therefore be transmitted to the other, has led to the avoidance of open drainage and its attendant pneumothorax, especially when pneumonia is present and the vital capacity low, and if there has been no time for stabilization of the mediastinum by adhesions. The author has tried preliminary aspiration of 200 to 300 c.cm. of pus in 28 cases; in 17 the condition was thereby improved prior to operation. The indications for this procedure are underlying pneumonia, cyanosis and dyspnoea due to pneumonia or much fluid, or unduly rapid pulse. If the pus is found to be too thick to pass through a needle, trocar puncture and catheter drainage is advised. With regard to diagnosis, the atypical forms give rise to greatest difficulty—for example, the encapsulated, interlobar, apical, or mediastinal empyemata. For the detection of these abnormalities careful physical and x-ray examination is essential and subsequent wide exploration at operation. As a routine method the pus is gradually drained off through a catheter introduced into the thorax by means of a trocar and cannula, and since the substitution of this method for the old open drainage at the Boston City Hospital the mortality from this condition has been halved. In accordance with other observers, the author has found that in pneumococcal empyema the chance of recovery is twice as great as in streptococcal empyema. The occurrence of chronic empyema depends upon various factors, such as age, organism, and complications, but it is believed that about 20 per cent of cases become chronic when treated by open drainage; the perfection of closed drain-

nage methods has seemed up to the present to reduce greatly the incidence of chronic empyema, this condition being developed in only 4.7 per cent. of the author's 126 cases treated by closed drainage. *B.M.J.* Oct, 1928.

The Age at which Certain Surgical Operations should be Performed upon Children.—A very practical article is that by Fevre. The time for intervention generally varies according to the individual surgeon, but in all cases, as the author points out, the indications are present demanding careful consideration, from the aspect of operative treatment under the varying conditions. Attention is first drawn to the fact that during the first few days of life the newly-born infant is wonderfully endowed with good resistance. This continues for four or five days, and apparently ceases on the sixth or seventh day, and during the first four months of life the child remains noticeably fragile. In this stage it takes anæsthetics badly, and is prone to develop pulmonary complications; its heat-regulating apparatus is imperfectly developed, making it liable to sudden death, with pallor and hyperpyrexia. Mainly, for these reasons, wherever possible, operative treatment should, be postponed between the fourth day and the fourth month of life. With reference to the two forms of hernia, inguinal and umbilical, met with in infancy, the former should not be operated upon under 6 years of age, although this rule is subject to modification should the hernia become strangulated. At the beginning, however, expectant treatment should be resorted to by means of a truss, the details respecting which are discussed. Of the two forms of umbilical hernia, the embryonic or foetal and the small umbilical form of the infant at the breast, the first, representing a voluminous tumour, must be operated upon forthwith, the case being submitted to an experienced surgeon. Meanwhile, there is no need for hurry in the case of the small umbilical hernia. A flat cushion maintained by a bandage suffices, but if by 6 years it is still found to remain, operation is then indicated. Other conditions dealt with in the course of the article are undescended testicle, vaginal hydrocele, hypospadias, epispadias, harelip—in relation to the age at which operative interference may be called for, and the respective methods of its adoption are described.—*F.B. M. R.* Nov. 28.

Radiotherapy in Actinomycosis.—(Radiology, Oct. 28) Dr. Arthur U. Desjardis, M.D., of Mayo Clinic Rochester, Minnesota, brings forward evidence of the value of Radiotherapy in the treatment of Actinomycosis by reference to twenty-nine cases, where the treatment in most cases consisted of a combination of drainage, the administration of Iodides internally, and Roentgen irradiation of the abdomen or thorax. Radium treatment was also given to eight cases at some time during the subsequent course of the disease. In cases where the lesion was situated in the abdomen, roentgen rays were applied from the level of the xiphoid cartilage to that of the lower border of pubis; generally through four anterior and four posterior fields.

In all these cases rays were generated at about 135 peak kilovolts, the focal skin distance usually was 16" and the intensity of the current flowing through the Coolidge tube was 5 milliamperes. Each of the abdominal fields (anterior) was treated with rays filtered through 6 m. m. of aluminium. This course of treatment was repeated several times at intervals of three or four weeks.

Improvement was not always immediate, and some times distinct improvement was not noted until after the second or third course of treatment. Dr. Arthur U. Desjardis reports many cases to show that roentgen rays are potent therapeutic agents against Actinomyces lesion of Actinomycosis. The earlier and more superficial the lesion the more rapidly they are made to involute and disappear by exposure to X-rays.

Actinomycotic lesions around the head and neck can nearly always be eradicated by thorough irradiation, by drainage of purulent collections, and by the internal use of increasingly daily doses of Sodium or Potassium Iodide; irradiation is undoubtedly the chief factor in the cure.

When Actinomycosis attacks the intestines or the lungs the disease often becomes extensive before its true character is recognised. Irradiation in such cases is seldom successful in effecting a cure, but slight or great improvement is not uncommon. Better results could certainly be obtained if the diagnosis were made and the treatment instituted earlier.—*Abd. V.C.S.*

Care of the Eyes in Measles.—Probably more harm has been done by the old fashioned notion that a child with measles must be kept in a dark room than by any other single nursing

fanet, declares Dr. B. F. Royer, writing of eye care in measles in Hygeia. Fresh air and light are imperative help to kill germs of pneumonia and other germs that are often responsible for the serious eye complications that develop after measles.

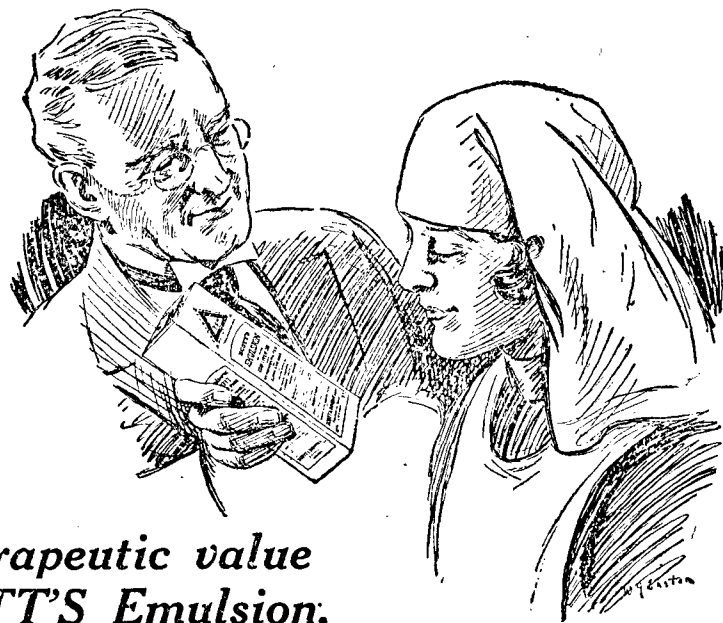
Dr. Royer suggests various means of obtaining comfort for inflamed eyes. The head of the bed should be toward the window, thus giving light without having the direct rays strike the eyes. If the light is too strong, a dark screen near the head of the bed or an eyeshade, if the child is not annoyed by it, will help. Perhaps nothing is so soothing in the early stages of measles as laying on the lips little pledgets of cotton that have been dipped in cool water. These should be kept on the eyes only a few minutes at a time, since most specialists feel that it is inadvisable to use long continued cold applications and to exclude the light for too long.—*T. S. T. M.* Nov. 1928.

MEDICINE.

Cutaneous Diphtheria.—F. G. Hitch (*Journ. Royal Naval Med. Service*, [p. 300]).—Although cutaneous infection with the diphtheria bacillus is well-known, it is uncommon. Before the war comparatively few cases of this disease appear to have been recognized. In 1908 Slater described a case in a girl, aged 13, with a severe vesicular rash of three years' duration, which was thought to be of specific origin. She was treated with mercury and iodides for 2 years without any appreciable effect, and was cured only when the correct bacteriological diagnosis was made. Eddowes and Hare recorded a case of severe ecthyma in a girl, due to diphtheritic infection. During the war cases of cutaneous diphtheria increased in frequency in most of the belligerent countries, and in Germany were attributed by Peiper to defective cleanliness due to the absence of soap. Rieherstein of Breslau, described an eczematoid form of diphtheritic infection of the skin, the site of predilection being the ear, on which all stages of acute eczema may be present, extending also to the occipital regions, neck and face. He stated that the axillæ, inter-digital spaces of the toes, and the external generative organs were also liable to be attacked. In 1921, Spiegelberg reported eleven cases, one of which was followed by motor and sensory paresis. Warren and Sutton recorded a case of varicella in a boy of 5, in which the lesions took on an impetiginous character; and

became infected with the Klebs-Loeffler bacillus. He developed extensive crusted lesions and died apparently from toxæmia. Another form of cutaneous diphtheria is that described by Walshe, and Craig, and many others under the name of "desert" "septic," or "veldt" sores which were prevalent among our troops, especially in the campaigns in Egypt and Palestine. This is a localized superficial cutaneous ulceration, chiefly occurring on the hands, forearms and other exposed parts of the body. Starting as vesicles, shallow ulcers develop, passing into a stage of chronic ulceration. 197 cases were examined bacteriologically by Craig, and in 67.5 per cent. diphtheroid or morphological diphtheria bacilli were found. Virulence tests on guinea-pigs and quail which are very susceptible to diphtheria were positive in some of these cases. In this connection it must be remembered that diphtheroid bacilli, morphologically and indeed culturally resembling the diphtheria bacillus are very widespread, and many varieties may be regarded as harmless saprophytes. A final diagnosis of cutaneous diphtheria should therefore only be made when a positive result has been given by a virulence test. The importance of the virulence test is illustrated by the following case:—

A man, aged 27, was admitted to the R. N. Hospital, Haslar, in Feb., 1928, with "furunculosis" of the left side of the neck, and an oval impetiginous patch, about 2 in. in its long diameter on the left side of the scalp. Behind the left ear was a weeping fissured eczematous lesion. He was treated in the usual way for impetigo, and in addition, an autogenous vaccine of *Staphylococcus aureus* prepared from one of the lesions was given. No improvement resulted. Ultra-violet light also failed. After 44 days in hospital, he developed a sore throat and pyrexia (temperature 101.6°). There was a membranous patch on the right tonsil. A throat swab was taken and morphological diphtheria bacilli were grown. At the same time a culture from the eczematous area behind the left ear gave a pure growth of same organism. A virulence test done with a subculture of this bacillus on a guinea-pig proved fatal in 3 days with typical post-mortem findings. Under diphtheria antitoxin the skin lesions rapidly cleared up. An attempt to discover the origin of the infection was unsuccessful. Throat and nasal swabs taken from all the other patients in the ward and from the nursing staff were negative.—*M. R.*, Nov. 28.



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Endemic Undulant Fever.—M. Kristensen (Ugeskar, F. Laeger, p. 869.)—The following facts show that a disease may be endemic and comparatively common in a country where its very existence is not suspected. Until the beginning of 1927, undulant fever—febris undulans (Bang)—was unknown in Denmark. A series of papers was then published, drawing attention to the possibility of this disease being endemic. As a result many practitioners faced with obscure cases of protracted fever of a certain type had a Widal test for undulant fever carried out, with the result that between April 3, 1917, and March 31, 1921, as many as 222 positive diagnoses were made on the strength of a Widal reaction in a 1 in 100, or weaker, dilution. Though the correct diagnosis in such cases does not lead to a standardised specific treatment, the serum and vaccine treatment of this disease being of doubtful value, it saves the patient from such mistaken diagnoses as tuberculosis, typhoid or paratyphoid fever.

The bacillus in question is responsible for infectious abortions in cattle and belongs to the Malta fever group, both the bacillus abortus (Bang), and the bacillus melitensis (Bruce) giving rise to an undulant type of fever. For the sake of brevity and a common international nomenclature, the two diseases should be known respectively as: febris undulans (Bang), and febris undulans (Bruce). It is exclusively with the former that this paper is concerned.

In addition to the characteristic undulant fever, one or more of the following manifestations of the disease may be observed. Vesicular stomatitis, palpitation of the heart, enlargement of the spleen, hæmorrhages (bleeding from the nose being very common), sore throat, bronchitis, diarrhoea and general debility. But in a considerable number of cases, the general condition is remarkably good in spite of high and protracted fever. The death-rate in this limited number of cases was between 2 and 3 per cent. The disease runs a protracted course, and while the average duration of the fever is about 75 days, the average duration of invalidity must be put at about 4 months.

No special seasonal incidence of the disease could be demonstrated, and it was distributed throughout the country without concentration in any one area. It would be seen that its incidence is remarkably constant. Probably every strain of the bacillus is virulent to man, but only a small proportion of

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PARIS, (By Mail)

So cleverly did a gang of fraudulent patent medicine vendors make up and sell quantities of faked medicines to chemists in Paris and elsewhere in France that the proprietors of the patent medicines themselves when asked by the police were unable to distinguish their own products from the faked ones.

The bottles, labels, printing and wrappings were all exactly imitated. Large shipments were made to Cuba and Mexico by deluded purchasers of the counterfeit medicines. Several arrests have been made but the police do not yet believe that they have caught all the men involved in the fraud which has cost reputable houses many thousands of pounds.

One of the cheated chemists with the connivance of the police set up a temporary export bureau and gave an order to the suspected persons. They duly delivered the falsified goods only to find themselves on arrival in the hands of the police.—British United Press.

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those who come in contact with it are susceptible. Otherwise—i. e., were some strains quite avirulent and others highly virulent, the disease would show an epidemic character. It was two-and-a-half times more frequent in the country than in the towns, and there was only one instance of two cases in the same family—a man and his son, attached to a farm where infectious abortion among cattle existed, suffering from the same disease, but not at the same time. Most of the cases occurred between the ages of 15 and 40, and there was none under the age of 8. The disease was about thrice as common in men as in women (166 to 56), and in this connection it should be remembered that in Denmark many more men than women come in direct contact with cattle. The sex incidence in the towns showed no such marked inequality, and there milk seemed to be the chief vehicle of infection. Only in one case was the portal of infection detected—in a man who had cut his finger while skinning an aborted calf. Two weeks later he began to feel unwell, but not till 6 weeks after the accident did he feel definitely ill. Of the 29 patients from whose blood an attempt was made to cultivate the infecting germ, as many as 18, or 62 per cent., yielded the bacillus abortus (Bang). In no case could other pathogenic germs be cultivated. Diagnosis by culture of the bacillus from the blood is, however, a very tedious process, 10 to 14 days being required and Widal's reaction is as a rule, sufficient to clinch the diagnosis in a case of undulant fever.

Treatment consists of rest in bed with a nourishing and easily digested dietary. Aspirin is said to be a useful antipyretic and in several cases quinine was found effective. It is important not to let the patient get up early, as the fever is apt to flare up again when he gets about, even after a normal temperature for several days. When the fever has lasted a couple of months, the patient should not be allowed to get up before the temperature has been normal for at least a fortnight. The temperature must be taken for some time after he gets up. It is probable that serum and vaccine treatment simply act as a sort of non-specific, protein shock therapy:—*M.R. Nov. 28.*

The Diagnostic Art of Smelling.—Curran Pope (*American Medicine* Sept. 1928), lays stress on the utility of education of the sense of smell by the physician, in diagnosing diseases. Osler, the eminent Clinician, practised this art very

much and often lay stress upon the importance of this sense in diagnosing infections and abscesses specially of the lungs. The author of the article believes that the smell of pus in the bacillus pyocyamus infections is quite characteristic and he feels, from his own extensive experience with pellagra, that one can almost make the diagnosis from the sour or musty bread odour present. Certain individuals give off peculiar smell following ceritus, described as animal-like. The writer thinks that as a result of certain substances from the uterus or ovaries acting upon the glands of the skin women during their menstrual periods exhibit a characteristic odour. It is asserted that some are able to detect in measles, diphtheria and typhoid peculiar characteristic odours.—(*Abd. V.C.S.*)

GYNÆCOLOGY.

Delivery of Adherent Placenta.—Dr. Julius Jarcho, New York, in Surg. Gynæc and Obst., Feb. 1928, refers to the danger of manual extractions of the adherent placenta, the mortality of which is estimated at 10 per cent, with 25 per cent morbidity of the uterus from infection.

The Mojon Gabaston method of delivering the placenta is especially useful in outlying homes where skilled assistance and perfect asepsis cannot be obtained. Essentially this method consists in the injection of 200 to 300 c.c. of warm, sterile isotonic saline solution into the placenta through the umbilical cord vein. This solution distends the placenta and ruptures the small vessels connecting it with the placental site of the uterus, thus forming a "vetro-placental hydroma," the mechanical action of which produces separation and expulsion of the placenta.

In three cases reported by Jarcho, in which the method was applied, the placenta was delivered in from 10 to 40 minutes and the purperium was uneventful.

The method is simple, requiring only a few saline tablets and a syringe.—*C M. and S., Nov. 1928.*

Vaginal Mycoses.—Dr. Ethel Lyon Heard, M.D., (Texas State Journal of Medicine Sept. 1928), describes a series of about ten cases where he demonstrates a fungi responsible for vaginitis. The group of Fungus responsible for these conditions are monilias related to the odium. In situ are found the budding forms, large oval bodies staining darkly with a gram stain, and mycelia,

The clinical picture of the disease in many cases simulates gonorrhœa. The author cites a case where local irritation due to the presence of monilias in the vagina gave rise to serious psychological disturbances. The author finds the applications of a 1% aqueous solution of gentian violet are efficacious in clearing up the discharge.—(*Abd. V.C.S.*)

Menorrhagia due to Cardiac Disease.—Etienne and Desbucuois related the case of a young woman, aged 22, who had been admitted into a hospital, to be treated for severe menorrhagia. No surgical or obstetrical cause having been found to account for the symptom, various hæmostatic drugs were given, but no efficient effect resulted. Fifteen days after admission several attacks of tachycardia drew attention to her heart, revealing disease of the mitral valve, and under treatment with digitaline, in 48 hours the uterine hæmorrhage, which had persisted for 23 days, was arrested. The authors referred to those cases in which an excessive loss of blood occurred during catamenia, as if the catamenial congestion was a necessary factor in the prevention of pathological congestion. This, as was commonly known, was always increased, during mitral disease, and the menorrhagia might be regarded as a compensatory provision against the cardiac effects. According to the view recently expressed by Prof. Lemierre, menorrhagia had proved to be resistant to all medical treatment until digitalis came into use, and its effects emphasized for the first time the etiological importance of the passive localized congestions present in cases of cardiac disease.—*Société médicale des Hopitaux de Paris, June 29, 1928.*—*A. F. B. M. R. Sep. 28.*

Hæmorrhage from Rupture of a Uterine Vein During Pregnancy.—J. R. Miller (*American Journ. of Obst.*, p. 103).—Hæmorrhage into the abdominal cavity is a rare but serious accident of pregnancy. In the following case operation was done under diagnosis of separation of the normally implanted placenta. Study of the literature shows that the correct diagnosis might be made more often if only the possibility were kept in mind.

A primipara, aged 31, about 31 weeks pregnant, was admitted to hospital in labour on July 1, 1927. Her medical attendant was called at 6 a.m. because of a sudden sharp lower abdominal

pain. He found irregular contractions of the uterus and the abdomen was very tender, almost rigid. The os admitted one finger, the canal was partly obliterated and the membranes did not bulge. He brought her at once to the hospital, and to his promptness was due a happy result.

At 11 a. m. the abdomen was extremely tender and ineffectual contractions of the uterus occurred. The entire uterus appeared to be very sensitive and tense but it lacked the ligneous consistency of concealed hæmorrhage. Her general condition was good, pulse 80 and of fair quality and she showed no pallor. Examination revealed two small dark blood clots. Premature separation of the normally implanted placenta with concealed hæmorrhage was diagnosed and she was prepared for Cæsarean section.

In the abdomen much free unclotted blood was found, estimated at 600 to 900 c.c. A premature child of about 31 weeks was removed and died a few hours later. The placenta was removed without difficulty and showed no area of separation. There was no trace of intramural hæmorrhage and the uterine incision was closed. After removing the fluid blood two or three organized blood clots were found in the pelvis and separated from loose omental attachments. These appeared to be old and were thought to have originated about the time of a previous attack of pain which the patient later reported had occurred 5 days before her present illness. Both tubes and ovaries were normal. A brisk venous hæmorrhage was observed from a dilated vein situated about 1 cm. from the right uterine horn behind it and toward the midline. This was easily controlled with a single catgut suture and the abdomen was closed. Recovery ensued.

Such cases are extremely rare and always fatal unless prompt operation is done. None of those recorded have survived except a few in which a hæmatoma, developing in the broad ligament, called attention to the hæmorrhage. The chief difficulties in differential diagnosis are to exclude spontaneous rupture of the uterus, though the treatment for both conditions would be operative, and second, to exclude concealed hæmorrhage into the uterine cavity from separation of the normally implanted placenta, with hæmorrhagic infarction of the uterine wall. For the latter many obstetricians advocate Cæsarean section as the infarction of the uterus may be so severe as to preclude the contraction and retraction necessary for control of postpartum hæmorrhage.

It seems that cases like the one reported usually give a history of (1) acute abdominal pain followed by (2) increasing sensitiveness of the abdomen, (3) signs of internal hæmorrhage, and (4) decreasing but unarrested uterine contractions—*Med. Review, Nov.*

Total concealed accidental Hæmorrhage Simulating Ovarian Tumour.—L. W. Roberts (*Brit. Med. Journ.*, p. 570).—Total concealed accidental hæmorrhage occurs only once in 15,000 pregnancies.

A multipara was admitted to hospital as an "acute abdomen" with the history of an operation for perineal repair 3 months previously at a metropolitan hospital, where she was not considered pregnant although two periods had been missed. After 5 months amenorrhœa without any other symptoms of pregnancy—though these had been marked in former gestations—the present illness began with a week's malaise and then sudden sharp pain of a "stretching" character which was referred to the lower part of the abdomen, especially on the right side. The patient's normally rather sallow face showed little loss of colour, but was of the typically abdominal type; the pulse was only 88. The abdomen was distended and rigid, with an indefinite fluctuating tumour extending above the umbilicus and to the right side. The os was hard and "pin-point," and there was no bleeding; both fornices were intensely tender, and there was a hard mass in Douglas's pouch. The most obvious symptom was the pain, which was constant and intense. The diagnosis of a twisted ovarian tumour with hæmorrhage into it appeared to be justified by the painful swelling after 5 months' amenorrhœa without other signs of pregnancy; the mass in Douglas's pouch was thought to be the retroverted fundus.

At operation 48 hours later a trace of blood was found for the first time on vaginal examination. The abdominal incision exposed a thin-walled, flabby, greyish-red tumour extending from the right side of the pelvis to beneath the liver. The tumour was still thought to be ovarian, and only after drawing off about 2 pints of blood from the apparently thin-walled cystic tumour was its true nature revealed by feeling the foetus. The placenta, situated over the internal os, and the foetus were removed through an incision in the uterine wall, which was so thin that only one layer of suture could be

introduced. Injections of hot saline solution and pituitrin directly into the uterine wall caused good contraction, and recovery was uneventful.

Proof that the uterine wall had recovered its thickness and tone was seen recently in a subsequent labour of nearly a week's duration; a 12 lb. full-time child had to be delivered by internal version.—*Medical Review.*

ERRATUM.

In October 1928, Number, Vol. XXV, No. 10, Antiseptic, Page 615, Line 9 For "Dr. A. Collis, Dental Surgeon" please read "Dr. A. D. Calliss, Dental Surgeon, Patna."

CORRESPONDENCE.

A QUERY.

TO THE EDITORS, THE "Antiseptic," MADRAS.

DEAR SIRS,

I shall feel highly obliged if you or any of the learned readers of your widely circulated magazine, will enlighten me on the following points:—

- (i) Whether 'Sudden deaths by heart failure' are possible in young females aged 16–25; whether such deaths can occur at any time—day or night, during waking or sleeping hours; whether anæmia in such women can be the immediate cause of sudden deaths, by causing cardiac, pulmonary or cerebral emboli; whether a fatal attack of Angina Pectoris can be one of the causes of such sudden deaths. Any references to standard works will be welcome.
- (ii) Whether it is the duty of Medical men to report all cases of sudden deaths—due to natural as well as unnatural causes, to Police authorities, or only those cases of sudden deaths about whose cause one is in doubt, or where poisoning is suspected in the least.

Yours faithfully,

C. G. MAHADEVIA, M. B. B. S.

CRITICISMS SOLICITED.

Dr. K. S. Anantha Iyer, the contributor of the article 'Quinine in Malaria', solicits criticisms regarding his article, which appeared in the October '28 issue, and his address for correspondence is 390, Audiappa Naick Street, G. T. Madras.

BOOK REVIEWS.

THE STRUGGLES OF MALE ADOLESCENCE

By C. Stanford Read, M.D., (Lond.) Published by George Allen and Unwin Ltd., Ruskin House, 40, Museum Street, London W. C., 1928. Pp. 247. Price 7/6. net.

Whatever may be the various aspects of the etiology of neurosis, yet one factor in which all schools agree is the essential importance of emotional factors in the early days of childhood. The author has given in this book a general outline of the various forces that are responsible for this sort of neurosis, like the parental influences, early sex difficulties &c. The writer fully discusses all the available theories and treatments and lays stress on the value of up-to-date treatment on selected cases. The book is an admirable guide to all those concerned in the training of the child under various capacities. The busy general practitioner that cannot spare much time to study the subject in detailed fashion can find in the book many a helpful suggestion in the treatment of these maladies.—V. C. S.

TROUBLES WE DON'T TALK ABOUT.

By T. F. Montague, M. D., F. A. C. S. Lecturer on Rectal Pathology, University Bellevue Hospital Medical College.

Illustrated Pp. 248, 1927. Price sh 9 net. Published by J. B. Lippincott & Co., London.

This book is intended for the use of laymen. It deals exhaustively with the common maladies of the rectum and anus. A full chapter is given illustrating the necessity of a thorough and routine rectal examination. Many factors are given about piles and malignant diseases of the rectum. A few chapters are given about constipation, where some of the common factors favouring it are discussed and its relief by drugs and physical methods of treatment. The author emphasises the necessity to seek the advice of a good and trustworthy medical attendant on the first appearance of any ano-rectal trouble. The book is bound to be welcomed by the public as few books are published in the interest of the public health.—V. C. S.

INCOMPATIBILITIES IN PRESCRIPTIONS.

By S. K. Mukherjee, M. B. Published by Rai Saheb B. N. Mukherji and Son, 1928 Pp. 125.

The author presents in this little book in a very clear way, the problem of incompatibility in prescription writing, and how to do away with them. The subject in this work has been dealt in such a way, that it makes an interesting reading. This book will be liked by all busy practitioners and is sure to be of immense help in all the dispensaries. We have no hesitation in recommending this book to all students and general practitioners.—V. C. S.

EPIDEMIC ENCEPHALITIS (ENCEPHALO-MYELITIS)

By Leo. M. Crafts, B.L., M.D., Published by Richard G. Badger, Boston, 1927. Pp. 237. Price \$. 3.50.

Dr. Crafts in writing this book presents to the profession in ordered sequence and comprehensive grouping, what has up to the present time been established as accepted knowledge on the character and behaviour of encephalitis. Every chapter in this volume is of extreme interest to the reader as facts are fully discussed and illustrated by author's own cases and clinical observations. His chapters on 'Symptoms' and 'Diagnosis' are very instructive and useful. The author in presenting this book has supplied to the profession a long felt want. The whole work is a lively discussion on encephalitis based more on the author's own clinical observations:—V. C. S.

BEDSIDE MEDICINE

By Akhil Ranjan Majumdar, M. B. Published by The Book Company, Ltd., Calcutta. Price Rs. 6-8-0. 1928. Pp. 443.

This book has been specially written by the author for the benefit of the Indian medical students. The book abounds in illustrations and most of them describe the disease vividly in the Indian patients. Important points to be noted in the examination of patients, the various physical signs together with the symptoms, and differential diagnosis of the various diseases are given very clearly. It is a book that is bound to be of great use to the students, and general practitioners as well, V. C. S.

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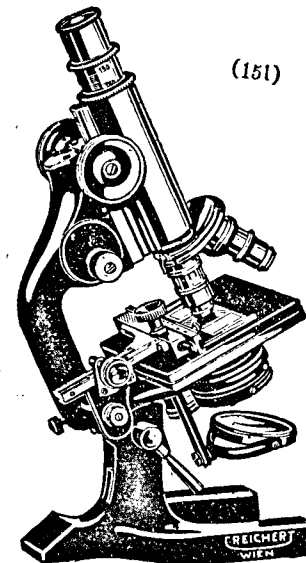
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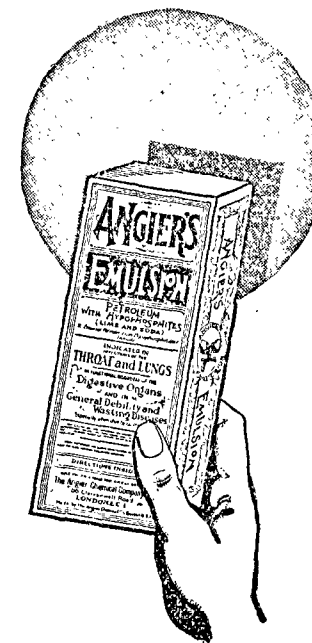
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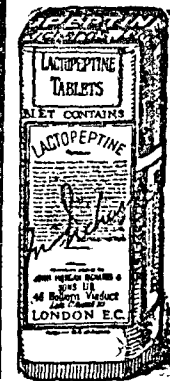
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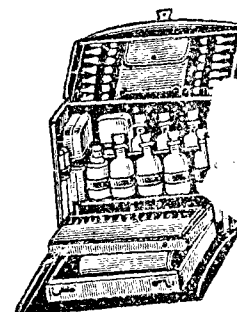
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