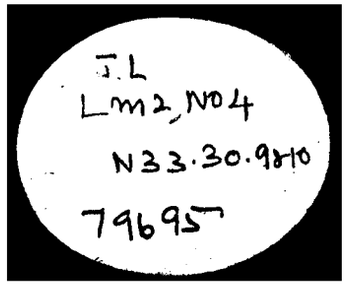
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# The Antiseptic

A MONTHLY MEDICAL JOURNAL

*Edited by*

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



CONTENTS.



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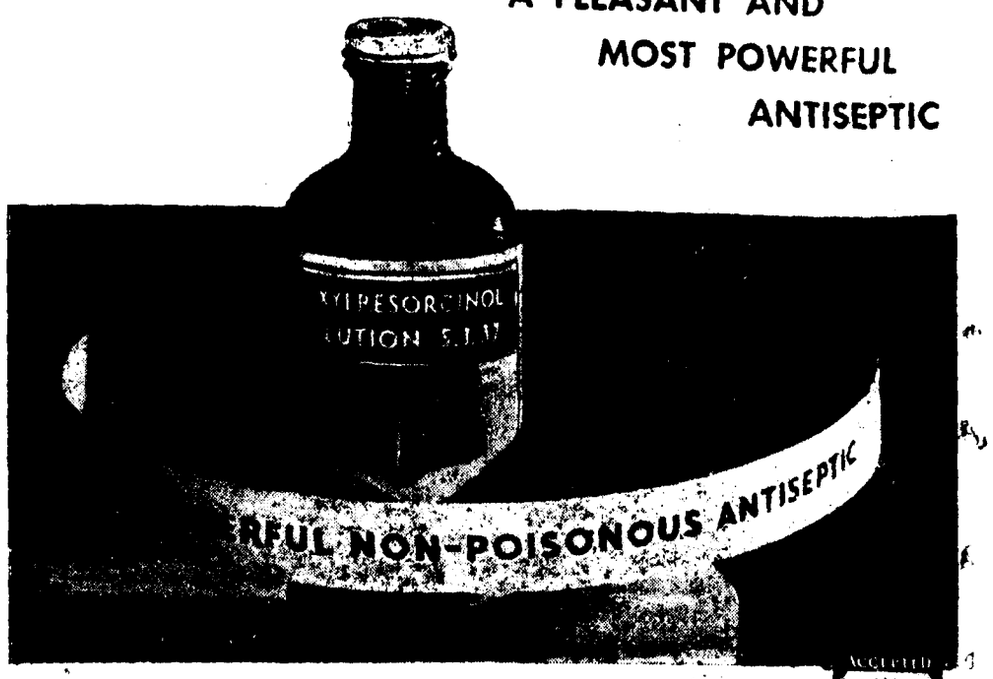


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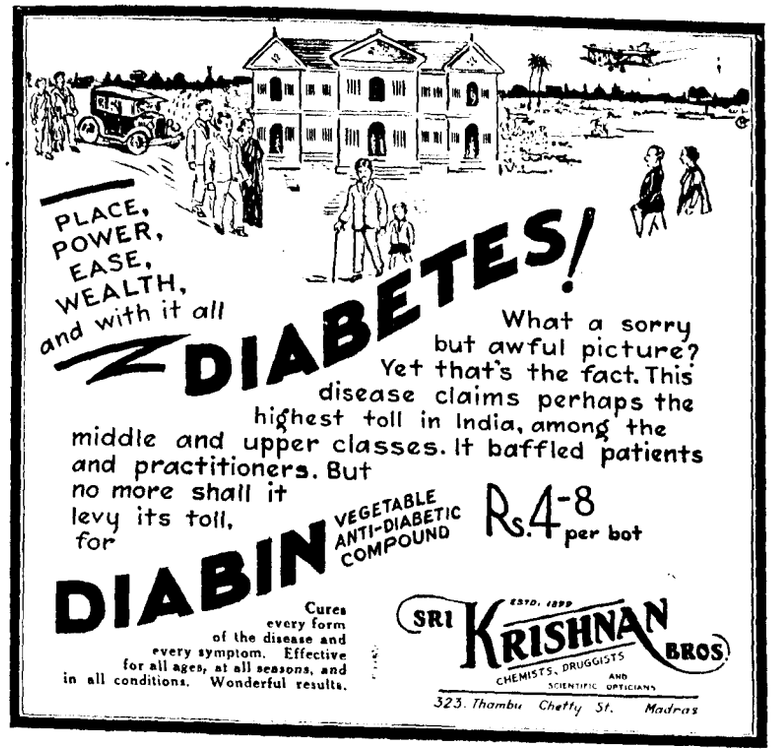



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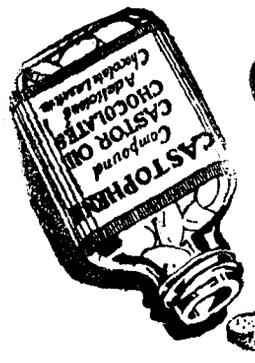


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## A SCHEME FOR MALARIAL SANITATION IN RURAL AREAS*

BY

COL. I. FROILANO DE MELLO,
*Director General of Medical Service in Portuguese India.*

**The epidemiological equation of malaria and its consequences for prophylaxy.—**

The problem of malaria may be synthetised in the following epidemiological equation.

Laveran's Hæmatozoon+female anopheline + susceptible man=Malaria.

And as, up to date, no other vertebrate's blood, but man's, has been found to harbour the plasmodia of human malaria, the equation above can be modified as follows:

Malarial patient+female anopheline+susceptible man=Malaria.

A prophylactic campaign against malaria, to be efficacious and scientifically conducted, should logically consider these three factors:

(1) Cure or sterilisation of malarial blood through drugs able to kill the hæmatozoon;

(2) Extinction or, at least, reduction of the anopheline fauna recognised as carrier of the infection;

(3) Protection of susceptible man, either by direct measures against the bite of mosquitoes or by indirect means which, by raising his standard of life, are able to confer a high degree of organic resistance.

* Specially contributed to the Antiseptic.

**Theory and practice.** Those principles, however unobjectionable, have not given in practice all the results which might be expected. What is the reason of such failures? Why does malaria claim in the world, in India especially, so many victims?

The fight against the hæmatozoon has been done till some time ago by preventive quininisation. Supposing that the whole population accept quinine willingly, this drug does not fully fulfil the aim, as it does not destroy all forms of malarial parasites, specially the sexual forms which, conjugating in the stomach of anopheline, produce new lots of *infective* agents.

As far as concerns the second factor, malariologists working in India and in Africa do know practically that it is an utopian idea to reduce to a minimum *rate*, less even to suppress, the anopheline fauna. Any malarial campaign which should be based *exclusively* on antimosquitic measures, seems to us, therefore, useless and inefficacious.

And the general level of popular masses in those countries and their economic and social conditions do not allow for the susceptible man the protective means which are only possible in societies supplied with high culture and advanced hygiene.

**A new parasiticid synthetic drug.** German chemists have prepared a new synthetic drug. It is known as *plasmochin*. Successfully used, first in experimental work and afterwards in general practice, plasmochin has given source to an abundant literature. Its effects are remarkable as it destroys all the forms of quartan and benign tertian and the gametes of malignant tertian. It has no effect on the ring forms of this plasmodide.

If we administer, however, in malignant tertian plasmochin and quinine, this combination becomes ideal: quinine destroys the asexual forms (rings), plasmochin the sexual ones (gametes). And not only the patient is cured, but the local anophelines, not finding in patient's blood the sexual phase of the parasite necessary for the further development of the hæmatozoon, become *ipso facto* uninfective.

These facts being fully confirmed in our experiments, we faced the problem by another side. As plasmochin destroys all sexual forms of all three species of Laveran's hæmatozoon, why shouldn't we try a mass plasmochination of a highly infected village in order to obtain the interruption of the cycle parasite - mosquito and render by this chemioprophylaxy innocuous the new anophelines born after this mass plasmochination?



**Mass plasmochination in the village of Codal.** — An isolated village in the province of Satary, named Codal, with 47 inhabitants and a spleen index of 82·7% was chosen for this experiment.

The doses employed were:

(*a*) *For adults:* three tablets of plasmochin compound per day (each tablet contains one centigr. of plasm+0·125 of sulphate of quinine)+0·125 sulph. quin. Hence a total daily dose of three centigr. plasm.+five decigr. of sulph. quin., given in one dose after the first meal.

(*b*) *For those between 11—18 years:* 2 above tablets+0·125 sulph. quin., *between 5—10 years:* 1 tablet the 1st day, 2 the 2nd day, 1 in the 3rd day and so on; *between 1—5, years* 1 tablet daily.

This treatment was administered in some series:

(1) One *primary treatment* during 8 days;

(2) One *secondary treatment* initiated after an interval of 2 days from the first series and comprising 4 days of treatment *ut supra*, 4 days of interruption, 4 days again of a new treatment, one week of interruption, 3 days of treatment.

(3) 45 days after the last series, a *complementary weekly treatment* comprising one weekly dose of 1 tablet plasm. comp. for children of 2—5 years, 2 tablets for those of 6—18 years, 3 tablets+0·125 sulph. quin. for adults. This treatment was continued during $2\frac{1}{2}$ months of the epidemic season.

The following precautions were taken: destruction of mosquitoes through nets and daily fumigations of houses and huts, during a period going from 8 days before the beginning of the treatment to the end of the first week of the plasmochination; weekly treatment by Paris green of all the breeding places of mosquitoes, in three sessions, the first, one week before, the second at the beginning, the third at the end of the primary treatment. Another precautionary measure was also taken as absolutely essential: an active treatment with quinine and plasmochin of any person entering Codal, when provenient from the surrounding malarial villages.

The results were simply wonderful. The spleen index fell down to 27·2%! And during the epidemic season this population which in former years had at least 2/3 of its inhabitants shivering daily with fever, did not show more than 2 febrile cases! Even mong 82 newcomers, all labourers from the surrounding villages,

employed in public works, to whom one weekly dose was administered during 45 days, only 7 cases of fever were registered! Important to add that no serious trouble except some gastralgias ending promptly with the suspension of the drug, was noticed.

**Further modification of preventive treatment** :—Meanwhile we were aware of the excellent work done by the doctors of the United Fruit Company in America. One of the conclusions they reached must be particularly emphasized: plasmochin, administered even in a single dose of 2 centigr. though not destroying the gametes, renders them unfit for fecundation and further development in the stomach of mosquito.

Mass plasmochination is now being used in a very large scale in Goa. A Legislative Act establishes the following rules for the compulsory treatment of villages with more than 50% of spleen index, only villages which, for economic reasons, are now under treatment; one week of primary treatment by plasmochin quinine *ut supra*, followed by a complementary weekly treatment during three months. The dosage has therefore been reduced. Thousands of inhabitants have been treated by this method and the results fully confirm the hopes we had deposited in this combined treatment.

Indeed, the antimalarial campaign comprises also a previous jungle clearing of the villages to be treated, the fumigation of the houses and dislarvation by Paris green, on the same lines as described above. But the first essential point of our campaign is the chemioprophylaxy by plasmochin-quinine and we are convinced that it constitutes the most powerful step of our time for the malarial sanitation.

*P. S.*—Another new drug—Atebrin—has been prepared. We have seen that it kills the quartan and benign tertian parasites and the ring forms, but not the gametes, of malignant tertian. Although it seems to be a very good and perhaps a better substitute for quinine, we have not employed atebrin for mass treatment, as it is anti-economic, for its actual cost is very expensive and therefore prohibitive.

---

# METHODS OF TREATMENT OF ENLARGED TONSILS*

BY

S. N. MALHOTRA, M.D., F.C.P.S.

*C. M. O., Jubbal State, Simla Hills*

IN ORDER to deal with this subject it is necessary to discuss first the following points:

1. Is the prevalent massacre of tonsils justifiable?
2. Is radical removal always necessary?
3. Should the general practitioner perform tonsil operations?

The function of the tonsil is generally described vaguely as protective but we must bear in mind.

(i) That this function is exhibited only by healthy tonsils in early childhood, during which period the tonsil attaisn its maximum development.

(ii) That it is easily overcome and slight; and no longer exerted by tonsils that are diseased.

(iii) That at most the tonsil is to be regarded as part of the general lymphatic apparatus; and its removal is of no more loss to the economy than that of any other lymphatic gland.

Clinically we have abundant evidence that removal of the tonsil when diseased not only causes no injury; but is of the greatest benefit, both local and general, to the individual.

**When is a tonsil to be regarded as diseased?**—We have no means of diagnosing a normal tonsil. We are constantly driven back upon the clinical test—when a tonsil is productive of pathological symptoms, it is diseased: otherwise, it is normal. Treatment should be based not so much on the size as the character of the glands. Tonsils that are diseased and causing symptoms should be removed no matter how small they may be. Whereas those producing no symptoms should not be removed even though hypertrophied. Many tonsils are removed quite unnecessarily. Definite and undoubted indications for this operation should be present. Tonsils that cause no disturbance need no treatment. Mere hypertrophy in young children is not a sign of disease nor an indication for removal.

*There are two main indications for removal*:

(i) To relieve obstruction due to large tonsils.

(ii) To relieve absorption of toxins through large or small tonsils, oftenest the latter.

---

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Consequently there are two types of operations.

1. **Tonsillotomy**—partial removal—when mechanical symptoms are present.
2. **Tonsillectomy**—complete removal—when absorptive symptoms are present.

The methods of operation must be adopted to

(*a*) The patient in respect to age, temperament, and constitution.

(*b*) The tonsil as to size, consistence, and relations.

**Is radical removal always necessary.**—In consideration of the uncertainty of the tonsillar function and in view of its intimate connection with the general lymphatic apparatus and disregarding those rare cases of myxœdema that have been recorded as following tonsillar operations in young children, we should give all children under three years of age the benefit of the doubt in the absence of positive contraindications and perform tonsillotomy rather than tonsillectomy.

The soft tonsils of early childhood projecting freely into the fauces, and causing symptoms of mechanical obstruction only, can be rapidly and readily removed with tonsillotomes. Their recurrence may be regarded as an evidence of their usefulness to the child organisms, and if necessary they can be as readily removed again. Other varieties of tonsils which are diseased, whether large or small, productive of symptoms of systemic infection must be radically removed by tonsillectomy, the object of which is the complete removal of all tonsillar lymphoid tissue with or without the capsule, and all methods that accomplish the object can be regarded as efficient.

**Should the General Practitioner remove tonsils?**— Dating from the invention of a guillotine and based on the facility with which these instruments can be used in the majority of cases, the tonsil operation has long been regarded as an easy one to be performed by any one. Unfortunately this impression is being transferred to present day methods; and many are now undertaking these radical operations with no adequate conception of their importance nor appreciation of their dangers.

There are some tonsils which the general practitioner can remove thoroughly and safely; while there are other types whose removal is so difficult and attended with such danger that he had better let them alone. To be successful, the practitioner must discriminate between the tonsils which he undertakes to remove.



**Enucleation of the tonsils.**—There has been a considerable amount of discussion as to the conditions in which enucleation of the tonsils should be done. In some quarters particularly in America, the operation of enucleation is nearly always performed whilst in England and in this country we are rather more conservative. In discussing this question it will be advisable to consider certain details. The gland lies between the palatine pillars, its deep surface enclosed in a capsule which rests on the sheath of the superior constrictor muscle of the pharynx. The connection between the capsule and the muscle is very loose except at the lower part where the vessels pierce the capsule. At this point called the hilum, some fibres of the muscle are incorporated in the coverings of the tonsil. From the free surface channels or crypts pass right down to the capsule. These crypts are lined by columnar epithelium which rests on a very thin network of fibrous tissue which surrounds the loose lymphoid structure of which the main part of gland is composed.

Numerous lymphatic channels take their rise in the tonsillar substance, and are in free communication with the lymphatics of the nose and with those of the opposite tonsil; and it is probable also with those of the lining of the mouth generally. The clinical importance of these connections is evident. Of equal importance is the connection between these lymphatics and the glands of the neck. While ordinarily they pass into the upper glands of the jugular chain, it seems from the results of the observations of some workers that there is at times a very free connection with the glands around the large vessels at the root of the neck and with the bronchial glands.

The exact physiology of the tonsil is still undetermined but the most reasonable view is that which looks upon it as a modified lymph gland. With the other lymphoid tissue at the opening of the pharynx, it forms what is known as "Waldeyers ring" which acts as a first line of defence against the invasion of the body by germs, by way of the mouth and nose.

By its lymphatic connection with the nose and mouth, it acts as an ordinary lymph gland in proof of which one should point to the frequency with which it becomes active after operations on the nose. Its own special function is probably to wage war against invading organisms and debris, generally by means of leucocytes which pass into the crypts through the spaces which exist between the epithelial cells. In the various infectious diseases to which children are prone, we commonly get affection of the faucial and pharyngeal tonsils.

While it would be wrong to state that the tonsil has no protective function, we cannot concede that this function is very great. It has been shown by many observers that when particles of food or micro-organisms pass into the crypts they traverse the channels and reach the deepest portion. Here they are removed by the leucocytes as long as the tonsil remains sufficiently active. When the protective power of the gland is overcome, we get a collection of debris and germs. It may be at first in the deeper parts and then filling the tubules, when it appears as cheesy material at the orifices. Changes occur in the tonsil itself. The stroma is increased the columnar epithelium and the lymphoid element are destroyed. As a general rule, the result is one of hypertrophy but this by no means always occurs. Many diseased tonsils are little if at all larger than normal, and this is said to be specially the case with tonsils in which the tubercle bacillus is found. From the putrefactive changes of the crypts, we get foul breath, coated tongue and so on. Various organisms have been found in these tonsils. The tubercle bacillus occurs in 5—10 per cent of the cases.

**The question may now be discussed, when is complete romoval of the tonsil called for ?**

There has been too much rough and ready surgery in connection with this organ. It has practically amounted to this. If you can get a bit off the tonsil, take it and the corollary if you cannot do so, the tonsil does not require to be touched. Both rules are unsound. Whilst it is unscientific and unsurgical to remove a totally diseased gland only partially, it is equally wrong to remove a gland which still retains or is likely to recover its functional activities. At the present time it is impossible to lay down a hard and fast rule.

When the tonsils are so much enlarged as to cause definite obstruction it cannot be doubted that they are at the same time so much diseased that their function is entirely lost ; and under these circumstances they should be completely removed. In other cases, however, where the enlargement is only of very moderate amount ; where the tonsil retains its pink and healthy appearance ; and where there is no exudation from the crypts ; its removal is not called for. Contributing causes should be dealt with, such as rhinitis, carious teeth ; and attention should be paid to the general health.

The flat or embedded tonsil deserves special attention. In health the tonsil remains within the pillars ; is pink in appearance and its surface is clean. But it is not unusual to find tonsils not much, if at all enlarged, but pale or grey in appearance and



the surface dirty with purulent or cheesy material exuding from the crypts. It is said that a good proportion of such tonsils are tubercular. There can be no question that for these tonsils the only operation is enucleation.

---

# SOME EXPERIENCES IN THE PRACTICE OF OBSTETRICS IN A TEA GARDEN*

BY

H. K. DAS GUPTA, L.M.P.,

*Hokongari T. E. Po. Barahapjan (Assam.)*

THE President of the Society has asked me to deal with a topic which is rather difficult for me to do with my limited experiences in writing papers. However, I have the great confidence that you will all indulgently lend your wise and experienced ears to my deliberation on the above subject, even though I may talk of irrelevant matters which do not agree with your own similar experiences. I shall deal with the subject under different headings with charts for easy expression of my experiences.

**Preliminary remarks.**—The duties of a Doctor, specially of a Tea Garden Doctor are multifarious. We, the garden Doctors, generally deal with people who are of the labour class. They are illiterate and so subject to prejudices. Experiences show how difficult it is to handle people of this kind. In their daily walk of life, they are always influenced by various prejudices and specially in the case of a woman under travail. A woman has got labour pain, say, in her house in the line. when under travail she or her relations will not allow the line nurses to attend her nor will they allow the neighbours to get into her house. They have got the belief that there are some persons who are not on good terms with them and who may do some harm which will invariably prolong the labour or even kill the child or the mother.

In normal cases women in labour never send for help to a male doctor for fear of shame. Generally the relations handle the case themselves or at most allow the line nurses to do so. In abnormal cases, however when the female attendant gives up hope of natural delivery, the relations after much delay come for help with great reluctance. For these reasons such labour cases come

* Read at a meeting of the Assam Frontier and Budla Beta Medical Society held on 7th January 1933, and specially sent to the Antiseptic for publication.

for help very late and are sometimes in a very hopeless condition. The opportunity to give early help is mainly confined to cases in which there is a sudden and unexpected onset of labour in Hospital.

Notwithstanding all these difficulties I had the fortune to attend on 253 such cases during my service for the last six years in Hokonguri T. E.

**Usual type of cases dealt with in Hospital.** Generally the cases of pregnancy we had to deal with were complicated with anaemia, malaria and ascariasis which are all very common among garden women and thus they come in a bad condition with very low vitality. These cases show very little progress as regards general health even with all efforts.

**Common causes of abnormal labour.**—The common causes of abnormal labour I had to deal with during the period 1927 to 1932 are the following:—

Uterine Inertia, Distended bladder or rectum, Cross birth, Breech, Prolapsed arm and other cases as shown in.

**Table 1.**

*Common causes of abnormal labour—Hokonguri Dvn.*

| Year | Uterine Inertia. | Distended Bladder and Rectum. | Cross Birth. | Breech. | Prolapsed Arm. | All other Cases. | Total. |
|---|---|---|---|---|---|---|---|
| 1927 | 10 | 7 | 1 | 3 | — | 6 | 27 |
| 1928 | 11 | 7 | 3 | 3 | 2 | 4 | 30 |
| 1929 | 18 | 6 | 2 | 6 | 1 | 4 | 37 |
| 1930 | 12 | 12 | 2 | 4 | 1 | 6 | 37 |
| 1931 | 20 | 22 | 2 | 4 | 1 | 7 | 56 |
| 1932 | 18 | 18 | 1 | 4 | — | 25 | 66 |
| Total, ... | 89 | 72 | 11 | 24 | 5 | 52 | 253 |
| Percentages. | 35·17 | 28·46 | 4·35 | 9·48 | 1·97 | 20·55 | |

(*a*) *Uterine Inertia.*—The majority of the above cases were uterine inertia (35·17% of the total cases attended). They were due to malnutrition, anæmia, and dropsy causing general weakness of the mother, distended bladder or rectum, pendulous abdomen, prolonged labour, repeated pregnancy and management of labour by unskilled hands.

(*b*) Distention of the bladder comes next with 28·46% of the total cases. Usually after relieving the bladder or rectum, contractions of the uterus became regular and natural delivery occurred. In many cases owing to ignorance of the line nurses, cases of distended bladder were mistaken for twin pregnancy.



*Cases*: (1) An orang girl, primipara aged about 19 years. The nurse reported that she was feeling two heads; time was 3 a. m. I found on palpation distended bladder and not the head. The child was in the normal first vertex presentation. I passed a catheter and relieved her of a pint of urine and shortly after that she delivered a healthy male child.

(2) On the 4th April 1929 a multipara aged 36 years was admitted into the hospital. She had delivery pains at about 8 a.m. A soap and water enema was given and she passed a very hard stool. She was passing urine frequently, so there was no need to use a catheter. The Hospital Nurse was attending on her and reported that the head was coming down, that the membranes were ruptured and that the hair of the baby was visible. The head was not advancing and pains were absent. I went to see her again and noted her pulse and temperature. She complained that the head was going back towards the rectum though she was lying in a bed specially made for delivery cases with the perineum properly supported by the nurse. I gave her another enema with soap and water but with no result. I thought that there might be some pieces of hard stool still left in the rectum and tried to remove them with my forefinger. Instead of fœcal matter I found to my utter surprise a ball of round worms which I pulled out with a pair of forceps. Immediately after this pains started and she delivered a healthy female child within 15 minutes.

(*c*) *Cross birth*:—Among these cases I had a very interesting one to handle in July 1930 which was the first case of its nature in my practice aud occurred in a basty near Barahapjan Station.

*Case*: An Oria woman 4th para aged about 35 years, general condition of health good. She was found to have complete inertia with ruptured membrane. There was prolapse of the left arm

upto the armpit down in the vagina said to be caused by traction on the prolapsed hand by the mother of the woman. This happened one hour before my going there. The head of the child was felt on the right iliac fossa and the breech in the left. The back of the child could not be felt on palpation. Pains had stopped for about ½ an hour. The bowels were very loose for the few days before the onset of labour and still diarrhoea persisted. Temperature was 100°F., pulse rapid and weak. I was quite at a loss to cope with the difficulties of treating her in her house and her relatives were unwilling to send her to Hospital. However I gave her a dose of quinine 10 grs. by mouth and awaited results. Fortunately after 20 minutes a strong contraction came and the child was delivered as a breech by spontaneous evolution within a very short space of time. Only, the after coming head was delivered by me by Prague's method.

A similar case I had the opportunity to see at Happan Hospital through the favour of Doctor W. F. Whaley and Doctor Rakshit.

These cases of spontaneous evolution are recorded in European text books as being of very rare occurrence. In the above two cases the children were of normal size and were full term deliveries. To anyone who has had the experience of seeing this extraordinary mechanism of delivery, it is a matter for wonder and surprise that a body other than a small and a premature child, could be born. It is interesting to note that in both cases mentioned, the muscular development of the mother was good. In such cases the expulsive force exerted by the uterus must be enormous.

In closing this heading, I could not help mentioning a few of my difficulties which arose out of ignorant handling of cases by the female attendants. These were due to violent massaging of the abdomen by the nurse or by the other female attendants. Often, when I was asked to attend a labour case I would find the child in the normal first vertex position and thinking that the labour would not commence before another 2 hours or so I would leave the patient in the care of the nurse with necessary instructions. On returning after my estimated time I would find the position of the child altered to a transverse presentation. On enquiry I would invariably find that this was caused only by violent massage given to abdomen and uterus. This abdominal massage, violent or otherwise, is regularly carried out among the coolies.



A few more interesting cases from my experiences are noted below.

(1) On 1—9—'26 in our Bengali Line I was called to see a pregnant woman aged about 20 years who was said to have been attacked by a ghost. On enquiry I found that at about 8 A. M. she sat under a big tree after taking her tea and while talking with two other women she was attacked by a ghost. Since then the ghost would haunt her frequently. They tried all sorts of pujas to scare away the ghost but it did not leave her. I entered the house and found the patient lying on the floor with several marks of injuries on her face, arm, head, forehead etc. She was getting fits. As soon as she got into a fit one woman caught her by the nose and asked the ghost to go away. I asked them not to do this but to take her to hospital. Immediately on admission she was getting fits almost every 10 to 15 minutes and was in a semi-comatose stage. Pulse was weak and rapid. Temperature 104°F. Foetal heart sound audible below umbilicus. I put her to bed and injected ½ gr. of morphin hypodermically and gave chloroform inhalation during fits and bromide mixture when she could swallow. These were repeated according to needs. A towel soaked in water was applied to her head and neck. Stomach was washed out with warm pot permanganate lotion. Bladder was relieved by a catheter and the urine when tested was found to be full of albumin. Lower bowels were cleaned with an enema containing soap water, oil of turpentine and ol ricini and she was kept under observation till 4 p.m. By then labour pains had not set in and the cervical canal was found undilated. A hot vaginal douche with lysol lotion was given but to no effect. The fits continued as before. She was speaking sensibly during intervals of fits. The heart sounds of the foetus were not audible and on abdominal palpation it was found that the child was in the first vertex position (back to left and in front). The temperature came down to 100°F. Pulse still remained rapid and weak. She was complaining of intermittent pains in the uterus. A dose of calomel gr. v with sodi bicarb gr. iv was given by mouth. No food had been given to her since her admission but only one or two spoonfuls of tea were allowed during intervals of fits after 4-30 p. m. when she felt thirsty.

Till 8 p.m. her fits had not stopped although they became less frequent. The Os was dilated admitting one finger. A sterilized male metal catheter was introduced into the uterus and by moving it gently it caused the membrane to rupture and there drained out

about 8 oz. of liq. amnii. The patient was kept warm by hot bottles and the heat of a fire. In the next morning the Os was dilated admitting two fingers. The fits although as severe as before had now become less frequent. The pulse was still rapid and weak. Temp. 101°F. There were two motions during the night, then the Os was dilated gradually by finger according to Harris's method. The child was delivered by forceps at 7 a. m. The child was a still born male child. Placenta came out along with the child. The patient had no more fits after delivery. 1 cc. pituitrin was then given hypodermically and ergot and quinine mixture with mag sulph. 1 dr. in each dose prescribed every 4 hours. She was discharged cured on 10-9-26 after 9 days in hospital.

*The 2nd case* was brought to Hospital from No. 1 Line by the Line Compounder. The patient was a new coolie of Palamu District, a primipara with 9 months pregnancy. The woman was unconscious, temperature 103°F. pulse was rapid and weak. The mother of the patient and other relatives would not allow me to wash out the stomach and bowels or to give any injection. I was quite helpless and requested the then M. O. Dr. McKinney to see her. He kindly came and tried to induce the mother of the woman to allow us to do what we thought necessary for the treatment but to no effect.

On palpation the child was found in the first position of vertex presentation. Foetal heart sounds were audible. The uterus was in a state of tonic contraction. The Os was fully dilated, the membranes were not ruptured.

During the course of my vaginal examination I ruptured the membrane and allowed the liq. amnii. to drain by passing a finger along the side of the head, with the other hand on the fundus externally. After this the contractions of uterus became intermittent and the head advanced. A healthy child was then delivered by nature and the patient regained consciousness and had no more eclamptic fits.

*The 3rd case* of Eclampsia was found in No. 16 Line. A Sambalpuri woman, 35 years of age with a 9 months pregnancy. She was getting delivery pains and sat on a wooden seat "Pirrah". this being the custom prevalent among the coolies. The membranes ruptured, labour commenced and the line nurse was in attendance. The patient complained of severe headache, drowsiness and disturbance of vision and wanted to lie down but the line nurse and female members of her family did not allow her to do so, because of their belief that the child will go up and will not be delivered. Shortly after this eclamptic fits commenced and the attendants thought that the mother was attacked by a ghost and left her to inform the male members of the family, who however went out to work. Only the mother of the woman sat beside her, the nurse came to inform me. I went and delivered the child without delay by forceps, After delivery the mother recovered from her eclamptic fits.



From the above three cases it will be seen that

(1) Coolies deeply believe that eclampsia is due to the attack of ghosts.

(2) Both anti and intra-partum eclampsia are found among the coolies.

(3) Digital dilatation was the only method of dilating the Os which was adopted.

(4) None of the cases suffered from puerperal sepsis.

(5) The ignorance of line dhais is not in any way less than that of the ordinary coolie, though the former are attending a good number of cases every year.

I have treated a few cases of *Asphyxia Pallida* during this period. I am noting down only 3 cases below.

*Case 1.* On March 10th 1927, I attended one anæmic and dropsical mother, aged 24, Dom, by caste. As the relations were unwilling to bring her to hospital and reported that the child was probably dead and as the mother's condition was also very bad, I was compelled to attend on her in the line at 2 a. m. The child was born a few minutes after my arrival but it was asphyxiated. I put the child in cold and hot bath alternately, after cleaning the throat with finger and employed the procedure of slapping the back. I tried Laborde's method of resuscitation by pulling the tip of the tongue forward as far as possible and then allowing it to recede. I repeated this process for 15 minutes but to no effect, then I had recourse to Byrd's method for another 10 minutes but without any success. I then injected pituitrin about 1/3 of a ½ cc. ampoule hypodermically, and introduced the forefinger into the rectum until I felt contraction of the sphincter-ani. After 3 minutes, the baby began to gasp for breath and after another 10 minutes it cried and breathed regularly.

*Case 2.* On 27-3-29 I attended a woman in No. 6 line. On my arrival I found meconium passing along with the amniotic fluid, yellowish green in colour, the child was in the vertex presen-

tation. Foetal heart sounds were counted to about 100 beats per minute during the intervals between pain. The os dilated admitting 3 fingers. I delivered the child with forceps, the cord was found around the neck and was released quickly, still the child remained asphyxiated. The cord was not pulsatile, so I tied the cord and separated the baby from the mother, cleaned the throat with index finger removing the gloves. I put the baby in hot and cold bath alternately with smart slapping on the back and tried artificial respiration for 15 minutes but the child's condition did not improve. I injected about ½ c.c. of liquor adrenalin chloride (1 in 1000 P. D. & Co.) into the muscle of the heart of the baby above the site of the apex beat and continued artificial respiration again. Within 10 to 15 minutes the child gasped, cried and began to breath regularly. The Placenta came out naturally in due time.

*Case III.* The 3rd case was a Mohammadan lady of Barahapja, bi-para, age 22, who was attended by a coolie nurse. She was a Pardanasin woman, so, I had to sit in a room close by. After half an hour the nurse reported that the child was just born but was not moving its arms or legs nor was it crying. The placenta came out naturally soon after delivery. Then I was allowed to enter the room to see the baby. I found the child with Asphyxia Pallida. The cord was tied and baby was separated from the placenta by the nurse before she reported the matter to me. I cleaned the baby's throat and gave an injection of 1/3 of a ½ c.c. ampoule of pituitrin hypodermically. I then put the baby into hot and cold water alternately. After this I introduced the index finger into the rectum till I felt the Sphincter-ani contracting. Within 10 minutes time the child cried and regular respiration commenced within next 10 minutes. No artificial respiration was tried owing to the objection of the relations and their strong prejudice against this procedure.

From the above cases it will be found that the introduction of finger in the rectum and use of pituitrin hypodermically and injection of liq. adrenalin chloride into the heart of the newly born baby was most effective in asphyxia pallida and I have used either of the two in all cases I came across in tea garden work and also in my practice as a Sub Assistant Surgeon in Assam.

*The most common causes of the eleven cases of premature birth* (1·69% of the total birth) which occurred during this period were mainly due to anaemia and cerebral type of malaria etc.

*The common abnormalities after labour*, I had to met with, during this period, are mainly due to retained placenta, adherent placenta and membranous placenta. The figures are shown in Table No. II.



**Table No. II.**

*Hokonguri Division*

*Common abnormalities after labour for 1927 to 1932.*

| Year. | Retained Placenta. | Adherent Placenta. | Membraneous Placenta. |
|---|---|---|---|
| 1927 | 2 | — | — |
| 1928 | 4 | 1 | 1 |
| 1929 | 3 | 2 | — |
| 1930 | 1 | 4 | 2 |
| 1931 | 3 | 4 | — |
| 1932 | 2 | — | — |
| Total ... | 15 | 11 | 3 |
| Percentage to Total case attended. | 5·92 | 4·34 | 1·18 |

The common causes of deaths of mother in labour or in puerperium are shown in Table No. III.

The deaths of children within 12 months are due to the causes shown in Table No. IV.

## Table No. III.

*Common causes of death of Mother in Labour or in Puerperium.*

*Hokonguri Division from 1927 to 1932.*

| | Puerperal Fever. | | Cardaic failure after delivery. | | Eclampsia. | | Puerperal Pneumonia. | | Intestinal obstruction. | | Choleraic Diarrhoea. | | Cerebral Malaria. | | Ascariasis. | | Post Partum Anaemia and Dropsy. | | Total. | | Grand Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hosp. | Line. | Hosp. | Line. | Hosp. | Line. | Hosp. | Line. | Hosp. | Line. | Hosp. | Line. | Hosp. | Line. | Hosp. | Line. | Hosp. | Line. | Hosp. | Line. | |
| 1927 | 1 | 1 | 1 | 1 | | 1 | | 1 | | | | | | | 1 | | | | 3 | 4 | 7 |
| 1928 | | 1 | 1 | | | | | 2 | 1 | | 1 | | | | | | 1 | | 4 | 3 | 7 |
| 1929 | | | 1 | 3 | | | | | | | | | | | | | | | 1 | 3 | 4 |
| 1930 | | | | 1 | | | | | | | | | 1 | | 1 | | | | 2 | 1 | 3 |
| 1931 | | 2 | | 2 | | | | 1 | | | | | 1 | | 1 | | | 1 | 2 | 6 | 8 |
| 1932 | | | 1 | 2 | | | | | | | | | | | | | | | 1 | 2 | 3 |
| Total | 1 | 4 | 4 | 9 | | 1 | | 4 | 1 | | 1 | | 2 | | 3 | | 1 | 1 | 13 | 19 | 32 |
| % to Total Deaths | 7.69 | 21.05 | 30.77 | 47.36 | | 5.26 | | 21.05 | 7.69 | | 7.69 | | 15.38 | | 23.07 | | 7.69 | 5.26 | 40.62 | 59.37 | |

## Table No. IV.

*Hokonguri Division.*

*Common causes of children's death within 12 months for the year 1927 to 1932.*

| | Marasmus. | Malarial Convulsion. | Diarrhoea. | Umbilical sepsis. | Respiratory Diseases. | Unknown. | Total. | Total Births. |
|---|---|---|---|---|---|---|---|---|
| 1927 | 7 | 5 | | | | | 12 | 109 |
| 1928 | 8 | 5 | | | | | 13 | 116 |
| 1929 | 6 | 3 | | 1 | | | 10 | 91 |
| 1930 | 2 | 3 | 1 | 3 | 2 | | 11 | 105 |
| 1931 | 4 | 1 | 1 | | | 1 | 7 | 128 |
| 1932 | 3 | 1 | | 2 | 1 | | 7 | 102 |
| Total | 30 | 18 | 2 | 6 | 3 | 1 | 60 | 651 |
| % to Total birth | 4·61 | 2·76 | ·31 | ·92 | ·46 | ·15 | 9·21 | |

In this connection I should like to mention that the present process of not separating the child by tying the cord before the placenta is delivered even in retained placenta cases is widely prevalent among the coolies. In many cases the child is over exposed to cold which is very serious. The proper antiseptic precautions for the care of the cord of the child are not taken by many coolie—dhais and mothers for which several children suffer from umbilical sepsis. Also many mothers who do not take proper care of their health during pregnancy either by not taking good food or by not taking medicine when necessary cannot produce strong children. The proper and insufficient diet and lack of knowledge of personal cleanliness especially of the care of the breasts, are also responsible for the deaths of the children from various causes as from general spesis, and green diarrhoea.

In many cases it was found that the children were born with enlargement of spleen, which is the result of long and repeated attacks of Malaria in the mother during pregnancy.

*Prognosis.* In my opinion the prognosis in average abnormal cases will be more hopeful if the coolies can understand the dangers of delay and bring the patient to Hospital in time. I have seen in many cases that the delay in bringing the patient to Hospital is caused by the line Dhais who are jealous of their reputation and keep abnormal cases in the lines depending upon nature to effect delivery.

I strongly believe that nature can cure many serious troubles but I think it is also our duty to help nature as for as possible.

The coolies are ignorant about many good things, but if we can prove ourselves very sympathetic to their troubles and explain to them with patience and tact that troubles similar to those of their wives in pregnancy and labour have been dealt with successfully in other coolies whom they know, they will surely understand the value of assistance which they can very easily obtain, without any expense, from the garden Doctor.

For these reasons, I always try my best to explain things concerning normal and abnormal labours to women in the lines whenever I go for any reason or to attend a delivery case and I think I am partly successful in my attempts as shown in Table No. 5.



**Table No. V.**

| Year. | Number attended in Hospital. | Number attended in Coolie Lines. | Total. | Total Births. |
|---|---|---|---|---|
| 1927 | 20 | 7 | 27 | 109 |
| 1928 | 20 | 10 | 30 | 116 |
| 1929 | 24 | 13 | 37 | 91 |
| 1930 | 20 | 17 | 37 | 105 |
| 1931 | 25 | 31 | 56 | 128 |
| 1932 | 30 | 36 | 66 | 108 |
| Total ... | 139 | 114 | 253 | 657 |
| Percentage to Total Births. | 21·35 | 17·51 | 38·86 | |

The coolies are getting more willing as the years pass by but still they are not sufficiently inclined to send their females to Hospital. I hope time will work in favour of us in the near future, when we shall see them all coming to Hospital of their own accord. Our progress would have been more advanced if we could have got the assistance of the line Dhais who are the most suitable persons for propaganda work. So I earnestly request my colleagues to take a little trouble to train their nurses as far as possible.

I suggest that the following important matters should be explained and taught to the Line Dhais:—

(1) Information regarding normal and abnormal presentations.
(2) Importance of personal cleanliness, especially as regards their hands.
(3) How and when to tie the cords, and the after care of cord.
(4) To send for the garden doctor if there is any sign of abnormality or to bring abnormal cases to hospital.

(5) To recognise such things as distension of bladder, cross birth and other abnormalities.

We should also teach them how to give an enema and how to hold the blade of the forceps, when helping us to attend a case in the line at dead of night when other help cannot possibly be procured.

The coolies are in the habit of waiting to see the effect of nature and performing several pujas in the day time and so generally come to us at night when all their efforts have been fruitless.

I should like to record before concluding my most grateful thanks to Mr. S. G. Bennett, Manager of Hokonguri T. E. for his continual help and interest in the work of attending labour cases in the garden. It is not too much to say that the work of attending a gradually increasing number of labour cases in Hospital and lines year by year would have been impossible without his sympathy and help.

I conclude with many thanks to the President Dr. D. P. Williams and the Hon. Secretary of the Society Dr. R. Bhattacharyya for allowing me to read this paper before you and my medical Officer Dr. W. F. Whaley for his kind suggestion and help. I hope you will excuse me for engaging you so long on a subject which I fear I have not dealt with as exhaustively as it should have been. Thank you all for hearing me patiently.

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# INFLUENCE OF NON-SPECIFIC FACTORS ON THE PRODUCTION OF ANTI-DIPHTHERITIC SERUM IN THE TROPICS*

BY

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IN COLLABORATION WITH

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RAMON has shown as early as 1926, that non-specific irritating substances like Tapioca increase the antigenic efficiency of 'anatoxine'.

Glenny and others have reported that "the immunity produced by the precipitate formed by the addition of alum, to tetanus and diphtheria toxoids is greater than that produced by toxoid alone. The increase in certain experimental conditions has reached even a thousand fold". They first experimented on guineapigs and subsequently have used the same method for hyperimmunisation of horses.

Glenny and Waddington showed an increase in antigenic response, produced by the addition of turpentine or toluol to diphtheria toxoid.

From a personal communication to me, from the Division of Laboratories and Research, New York State Department of Health, in September 1931, we have also come to learn that in their laboratory "recent horses, some on injections of toxin combined with sodium or potassium alum have reached a suitable potency for bleeding when a volume of 200 c.c. of toxin only has been reached."

Leonard and Varley also undertook experimental work along similar lines with alum-treated antigens. They have summarised their results thus :—"Based on the relative antigen doses and the subsequent antitoxin titres, the antigenic effectiveness of immunisation with alum treated toxoid and toxin was about 3 times as great as that of toxoid and toxin without addition of alum". But they have observed a cumulative toxic effect on horses, as well.

* Specially contributed to the Antiseptic.

All these results led us to take up a comparative study in immunisation of horses in our Laboratory to see if any improvement can be obtained by the new method in the tropical country.

10 per cent aqueous solution of pure potassium alum was sterilised and added to diphtheria toxoid in a sterile way in such proportions as to give a final concentration of 0·2 p. c. in the first few doses and 0·6 p.c. in the subsequent doses. The precipitate was thoroughly mixed with supernatant liquid before injection.

We took 6 new country bred horses, of almost the same kind (colour, age, size etc.,) which showed the presence of natural antitoxin and divided them into 2 groups. 3 horses of the first group were given 2 injections of alum toxoid per week for 9 weeks in slowly increasing doses :—1 c.c., 1·5 c.c., 2 c.c., 3 c.c., 4 c.c., 5 c.c., 7 c.c., 9 c.c., 11 c.c., 14 c.c., 18 c.c., 25 c.c., 35 c.c., 50 c.c., 60 c.c., 80 c.c., 96 c.c., 120 c.c. The other group of 3 horses was injected with toxoid alone upto a dose of 120 c.c., as in the first group. The toxin was used from the same lot in all these horses ;—M.L.D. varying between 1/250 and 1/500. We did not like to inject high-titre toxins in these experiments, for uncertainty of success. Though our toxin was covered over with toluol, in all cases, as preservative, we took every precaution to syphon off the bottom part, which is absolutely free from toluol. On the day preceeding the first injection, preliminary injection of 3000 units of diphtheria antitoxin was given intravenously to all these horses, all the doses less than 20 c.c. were, as usual, made up to that volume by sterile normal saline.

After a dose of 120 c. c, our usual custom is to test for the antitoxic content and if found less than 100 Ehrlich units, the immunisation is discontinued. In the first group of 3 horses, injected with Alum toxoid, 2 had to be rejected, and in the second group of 3 horses, injected with toxoid alone one had to be rejected by this method of exclusion.

The process of immunisation was continued in the other horses, the dose being increased by 25 c.c at each injection up to a maximum single dose of 400 c.c. in all cases. The horses were then bled and their sera tested for antitoxic content. The result is given in the following tables.

The horse of the first group was continued with Alum-Toxoid —2 injections of the same dose were given between each two bleedings, as in others.

The 2nd group of 2 horses, which were injected with toxoid alone, was continued after 4 bleedings, with Alum-toxoid,(and not toxoid as before), to see if that makes an appreciable difference in the titre of the serum. In our experience, as will be evident from the following tables, the titre did not vary to any great extent.



Not only the titre did not vary appreciably, but the general health of all these horses, injected with the alum-toxoid was decidedly broken down (loss of weight, and anemia). Though there was no abscess formation near the site of the injection, the part used to remain very tender for the subsequent 3 to 4 days, after each injection.

*Table I—Group A.*

(Injected with Alum-Toxoid, all through)

| | | *Horse No. I.* |
|---|---|---|
| Titre after the 1st bleeding | | ... 300 units. |
| ,, ,, 2nd | ,, | ... 275 ,, |
| ,, ,, 3rd | ,, | ... 250 ,, |
| ,, ,, 4th | ,, | ... 275 ,, |
| ,, ,, 5th | ,, | ... 250 ,, |
| ,, ,, 6th | ,, | ... 250 ,, |
| ,, ,, 7th | ,, | ... 225 ,, |

The animal became sick and continued to be sick and useless.

*Table II—Group B.*

(Injected with toxoid only upto the 4th Bleeding, and with Alum-toxoid in the subsequent injections).

| | | *Horse No. II.* |
|---|---|---|
| Titre after the 1st bleeding (toxoid only) | | ... 450 units. |
| ,, ,, 2nd | | ... 350 ,, |
| ,, ,, 3rd | | ... 400 ,, |
| ,, ,, 4th | | ... 400 ,, |
| ,, ,, 5th | (Alum toxoid) | ... 400 ,, |
| ,, ,, 6th | | ... 350 ,, |
| ,, ,, 7th | | ... 250 ,, |

The horse became very sick and died after 3 months of illness.

(*Group B*).

| | | *Horse No. III.* |
|---|---|---|
| Titre after the 1st bleeding (toxoid only) | | ... 400 units. |
| ,, ,, 2nd | | ... 350 ,, |
| ,, ,, 3rd | | ... 400 ,, |
| ,, ,, 4th | | ... 350 ,, |
| ,, ,, 5th | (Alum toxoid) | ... 350 ,, |
| ,, ,, 6th | | ... 350 ,, |
| ,, ,, 7th | | ... 250 ,, |

The horse became sick and continued to be sick and useless,

As regards the other non-specific substances, the results are similarly not at all encouraging-the drawback of Topioca and Toluol is in abscess formation in majority of cases, without any appreciable rise in titre.

**Conclusion:**—Our finding is that Alum-toxoid can, in no way, be considered a better antigen than toxoid alone and that the influence of other non-specific factors also is not at all encouraging. The after-effect of the Alum-toxoid in particular, upon the health of the horses, as it seems, is far from satisfactory.

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# THERAPEUTIC BY-EFFECTS OF HAFFKINE'S PROPHYLAXIS *

BY

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HAFFKINE'S prophylaxis, popularly known as Anti-plague Inoculation, as is well known, is a procedure whereby active immunity is conferred on an individual, by subcutaneous deposition through a well known technique, of a vaccine prepared at Haffkine Institute from killed plague germs. The inoculation is followed by a local reaction and constitutional disturbances of varying degrees, lasting from 2 to 5 days, and the immunity developed in the course of these reactions is found to last to a marked degree for six months and is said to be sufficient even for about an year.

In actual practice one finds in Haffkine's prophylaxis a friend which almost never fails even in circumstances reckoned to be most insanitary and plague-inviting. Haffkine's prophylaxis is in essential a prophylactic measure of doubtless efficacy and it has always been availed of as such. In fact it has never been utilized for other purposes. Though never used primarily for therapeutic ends, yet it has been seen in some cases to by-the-way influence some disease in a way, which can be taken to be of the nature of therapeutic by-effect. And it is the object of this communication to merely record a few of these by-effects, without putting any plea for therapeutic utilisation of this prophylactic measure.

* Specially contributed to the Antiseptic.



The by-effects, referred to above, may be either specific or non-specific in their nature. In the first category obviously come the observations made by certain workers to the effect that when the prophylaxis is ministered during the incubation period, the course of the attack of plague that follows is modified for the good in most of the cases. Stewart while discussing the subject of 'Negative phase' writes:—"Haffkine and Bannermann in 1901 and 1902 published figures showing that Haffkine's prophylaxis has the power of abating and diminishing the severity of an attack of plague in the case of any patient who may have been inoculated in the incubation stage of the disease. The figures are summarised in the Handbook of the Haffkine Laboratory 1924. In the investigation quoted the case mortality amongst the non-inoculated was 73 per 100. The case mortality amongst those showing signs of plague at the time of inoculation was 48.8 per 100. In cases of plague where the symptoms appeared on the first day after vaccination the case mortality proved 57.5 against 73·3 per 100 in the uninoculated. The figures of Haffkine and Bannermann were carefully collected and controlled, particular care being taken to see that the controls of non-inoculated were representative and not packed."

The conclusions drawn from this careful investigation are obvious. It shows that persons showing signs of plague even at the time of inoculation had only 48.8% as mortality figures against 73·3% in the unprotected population. It is an evidence that proves sufficiently and conclusively the modifying influence for the better that Haffkine's prophylaxis exerts on mortality figures even when the measure is administered not only during but also somewhat after the end of the incubation period. It means :—

| | | |
|---|---|---|
| Mortality in non-inoculated | ... | 73·3% |
| Mortality in cases showing signs of plague at the time of inoculation | ... | 48·8% |
| Lives saved. | ... | 73·3 minus 48.8—24·5% |

The recovery of 24·5% lives, other things being equal, can be attributed to some beneficial influence exerted by the Haffkine vaccine. In other words the vaccine strived to work in a way that can be reckoned as 'therapeutic contribution.'

The figures quoted above and interpreted to suit this communication, let it be noted, are figures gathered from investigation set up primarily to assess the value of the inoculation as a prophylactic

measure. The therapeutic interpretation is a mere by-product. And this interpretation is more of theoretical and Public Health interest than of practical therapeutics in the present state of our knowledge. Vaccine therapy is being utilised in some other acute infections with somewhat good though not absolutely uniform and encouraging results. But in such a galloping acute disease as plague one feels somewhat though not absolutely secure in the hands of sera and chemo-therapy. But no wonder if in plague some one finds another field for the application of vaccine therapy. Surely proper investigation primarily set up to assess the therapeutic practicability of this vaccine is needed.

Leaving aside these theoretical speculations concerning the therapeutic utilisation of vaccine in plague, one intends to pass on to a group of ailments, mostly of chronic nature and divergent types, which are found to be beneficially influenced by the administration of Haffkine's prophylaxis.

In a plague season people either volunteer for or are induced to take anti-plague inoculations. When the persons who voluntarily come forward, are asked the reason that prompts them to take the pains of the prophylaxis, one learns that most of them actually realise the preventive value of the procedure. But there is a small group of persons left who, though are given to understand the prophylactic aspect of the measure, come forward with rather unusual cheerfulness, mainly for other reasons. The fact is that these persons have found out by their own personal experience that the inoculation of the previous plague season modified their ailments. And most of these ailments are chronic troubles which had resisted prolonged though more or less half-hearted treatments at the hands of various indigenous and foreign systems of medicines.

In this group most of these persons are found to suffer from aches and pains of short duration and shifting nature, affecting mostly the bones and joints and sometimes the soft structures. Some of these give a clear venereal history while others are found to be quite untainted. There are also cases with gonorrhœal history and some degree of chronic periarthritis. Some persons given to occasional attacks of painless or somewhat painful transient indurated swellings on various parts of the body,are found to derive some partial freedom from their sufferings. Some inguinal buboes associated with venereal affections of the genitals are found to take up a turn for the better towards resolution especially when the condition happens to be in the pre-suppurative stage.

Further in this small group not infrequently one finds that a

person offers his arm for inoculation with a cheerful face saying "your last inoculation helped me much in my rheumatic sufferings" or " my gout kept somewhat controlled with the inoculation". Some report increased vigour and vitality after inoculation, while a few seek in inoculation the secret of their rising obesity. In this group one has also found a few sufferers from eczema and dermatitis reporting beneficial influences from inoculations. One also remembers a case who felt worried with his generalised pruritis (and in whom no cause could be detected underlying his sufferings and in whom treatment was a failure) improving miraculously after inoculation and kept free from itching till the advent of the next inoculation season. One cannot say whether nervous and psychological factors were at work in him or not.

It should be noted that the above few remarks are based on the personal observations made by the sufferers themselves and these in most of the cases relate to their own conclusions. People who receive inoculations include also sufferers from these bodily troubles but all do not turn up (nor are they expected) to report their experiences. Only a few do and most of these few find the next inoculation season the proper time for expression of their views.

One can definitely say that all sufferers from these ailments do not derive benefit from the inoculations. And those who do derive the benefit, it is more of the nature of a temporary alleviation rather than of the type of a cure. The sufferers had received only one dose and that too mostly in full strength. It is just possible modified and repeated doses might have brought better results. The mechanism by which this alleviation is brought about is by no means clear. It might be of the nature of protein—shock or stimulation therapy or merely a pyro-therapy. Nervous and psychic factors might also be at work. At its best it can be conceived to bring about a non-specific stimulation that brisks up the defence mechanism.

Concluding one may remark that a measure to qualify for therapeutic utilisation is required when administered to bring about unfailing therapeutic reactions though of varying degrees. This has not been observed in the case of this vaccine. But further observations are necessary. The object of this communication is not to suggest the employment of the vaccine for curative purposes and rob it of its exclusive field, but merely one intends to say that Haffkine's prophylaxis though essentially a protective measure, by the way in some cases brings about a non-specific alleviation of some chronic sufferings.

**Summary:** Haffkine's prophylaxis even when administered during or just after the end of the incubation period in plague, is reported to exercise a relatively beneficial influence on the course of the disease—a specific effect.

A few cases of chronic aches and pains of venereal, rheumatic, gouty and some obscure origin, venereal buboes in especially pre-suppurative stage, eczema etc., have been noted to derive some alleviation of their sufferings at the hands of Haffkine's prophylaxis—a non-specific effect.

These improvements were noted as a matter of by-effects of a procedure which was essentially and was purely used as a prophylactic measure. No attempt has however been made to utilise this measure for therapeutic ends. Only its interesting by-effects of therapeutic nature have been noted.

*Reference :—*

*The Indian Medical Gazette, Stewart, Sep. 1932, p. 516.*

## CASES AND COMMENTS

### ONE HUGE HYDROCELE

BY

DR. P. NARAYANAN NAIR,

*I/C District Hospital, Tunduru, T. T. Africa.*

A. N.—A middle aged African patient-about 38 years of age—was admitted in the hospital on 24th July 1932 having a huge swelling of the scrotum.

**Family History.**—Nothing particular.

**Past History.**—Nothing particular to mention except two years ago the hydrocele was tapped by the previous Doctor.

**Present History.**—The swelling of the scrotum was increasing day by day and the patient was not at all getting proper sleep during night. The patient neither could walk nor sit comfortably due to the huge swelling. He sought admission only forgetting proper sleep.

**Condition on Admission.**—The patient was fairly healthy. His heart was normal and urine was slightly acid. There was difficulty in walking due to the weight of the tumour. His appetite was good and the general condition otherwise satisfactory. There was no sign of penis but a narrow hole 6 in. long and the urine was dripping.



ONE HUGE HYDROCELE.
—*Narayan Nair.*

*To Face Page 794.*

2. After Treatment.

A CASE OF SCABIES—*M. Abdulla.*

1. Before Treatment.

*To Face Page 795.*



**Photograph.**—A photograph was taken by the District Officer, S. A. Walden Esq., at my request. My thanks are due to him for the kind help he rendered to me.

**Operation.**—Operated the case on 4th August 1932 at 9 a.m. after having taken the proper antiseptic precautions under general anæsthetic (one of chloroform with four of aether) mixture. After putting the incision four inches long over the most prominent part of the hydrocele in front, the tunica vaginalis was cleaned and the hydrocele was tapped. 520 ounces of fluid were drawn off. Then the tunica vaginalis was separated from the adhesions and drawn out of the incision-a slit 2½ in. long was made and turned the inside out. All the bleeding points were secured, the testes replaced in the scrotum and the skin wound sutured leaving a drainage tube at the lower pole of the wound. The wound was dressed antiseptically and the patient was then sent to the ward.

At 2 p.m. the temperature was 101.

Upto the 8th day of the operation, the patient was getting on well. The wound almost healed, no discharge, no pain, temperature 99, appetite good, sleep without any trouble, walking in the ward with a cheerful face and he wanted to eat "Ugari" (one of the hard foods of the Africans). But I did not give him any hard food and he had only liquid food such as, milk, tea, conjee etc.

At 1 p.m. on 12-8-32 the patient complained of severe pain over the left lumbar region below the left-kidney. I examined and found it to be muscular pain. Antiphlogistine was applied over it.

The patient succumbed in the evening at 6 p.m.

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## A CASE OF SCABIES

BY

M. ABDULLA, L. M. & S.,

*Medical Officer In-charge, Municipal Hospital,*

*Vaniyambadi, N. Arcot District.*

I beg to report a case of scabies in a boy, who after a single application of "Sulphur Ointment", developed a severe form of Exfoliative Dermatitis within about 12 hours.

A Hindu boy, 7 years of age was suffering from scabies for the last two months. The vesicles consisted of papules and pustules of various sizes, spreading all over the body. The webs

of the fingers and toes were mostly affected. The itching was very severe.

The "Sulphur Ointment" that I gave was applied as usual at bed time, as per my directions. It was supplied by the Government Medical Stores, Madras, and I have used it in hundreds of cases without any ill effects. After about 4 hours of its application, the boy complained of severe pain and itching all over the body and as a result of which he did not sleep well. In the morning when he was brought to me I was surprised to see the whole of his skin inflamed and exfoliated here and there. Some of the vesicles were so large as to require cutting with a pair of scissors. His temperature was ranging between 100 to 103 a day for about 4 days. As a part of the treatment simple Carron Oil was applied and in about a week's time the boy got better.

This case is of interest because of the extreme rarity that "Sulphur Ointment" produces such a severe inflammation of the skin, in such a short time as in this case.

I have herewith appended photographs of the case for your publication.

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## A CASE OF CYANOSIS WITH HAEMOGLOBINURIA AND HAEMATURIA AFTER PLASMOCHIN AND ATEBRIN

BY

S. K. GUPTA, M.B.,

*Jamalpur, Burdwan.*

A FEW days back, B. S. a boy of seven was brought to my dispensary with the following symptoms :—

(1) Cyanosis—all over the body.

(2) Dyspnœa—slight.

(3) Vomiting—yellowish in colour.

(4) Pain in the abdomen.

The boy's father, with a view to preventing the attack of malarial fever during this malarial season, administered 2 tablets of plasmochin and one tablet of atebrin each day for two days consecutively. On the 3rd morning the boy was brought to me with the above symptoms. The boy was then free from fever and was passing urine of pale yellow colour. He was given soda-bicarb with glucose to sip frequently.

Next morning the boy got rise of temperature which came with rigor and he began to pass urine of deep red colour which



on exposure became darker. His stools were also of the same colour as that of his urine (as told by patient's father) which lasted for a day only, then became yellow.

His temperature varied from 99·5°F. to 102°F. for two days, then subsided with treatment.

His cyanosis, vomiting and pain in the abdomen gradually diminished but he became yellow (jaundiced) all over. Though his pulse varied from 135 to 156 p.m., his respiration and consciousness were alright.

The boy complained of pain in the head, lumbar region, right hypochondriac and epigastric region. His liver and kidneys were tender on palpation. 3 samples of his urine were sent to Calcutta for examination, the report of which is as follows :—

I Sample—(decomposed)—coloured deep; sanguinous; contains copious albumin, hæmoglobin and bile; *microscopically*—large number of triple phosphate crystals, micro organisms, stroma of R.B.C.S.; no cast or epithelial cells or R.B.C. (R.B. C.S. were broken due to decomposition.)

II Sample—Less sanguinous in colour (slightly decomposed). There is less albumin and less blood. No R.B.C. Triple phosphate crystals present. Bile present.

III Sample—fresh—colour moderately high. Sp. gravity 1020. Albumin—a trace. Bile—a trace present. Pus—a faint trace. (Both salts and pigments.)

M. E.—Pus cells present in small numbers. No R.B.C.; squamous ephithelial cells present. No spectroscopic examination was done.

The boy made an uneventful recovery in a week.

**Treatment :**—He was given glucose with soda-bicarb per mouth first and then per rectum in normal saline, chatestrol with calcium lactate (powder) and extract cassea Bearane liq. ♏ xv. 4 times a day was given per mouth.

Plenty of fluids, barley water, soda water, cocoanut water etc., were advised as drinks. No oxygen nor any blood or liver extract injection was required. Only Iron mixture did a good deal of benefit after the subsidence of the symptoms.

This case might be of interest to the medical men in the sense that (1) plasmoquine and atebrin are given by some medical men in the treatment of black water fever which I think should be used judiciously, if used at all.

(2) The drugs produce idiosyncrasy in some patients—the younger brother of this boy also took the same dose but showed

no symptoms of poisons except pain in the abdomen and vomiting (slight).

(3) Atebrin stains the skin (conjunctiva and tongue) yellow which should be differentiated from jaundice. Another man of this family took plasmochin with atebrin for his fever, developed yellow colouration of his conjunctiva which was not due to loss of blood but due to intake of the drug.

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# MILK AND IODINE THERAPY

BY

DR. RADHABINODE DAS,

*Sirajganj, Bengal.*

THOUGH I think, it will not be an extra-ordinary example before the eyes of the up-to-date medical profession that protein therapy acts in many a case with success where specific and other therapies have failed, yet I beg to exhibit the following instances before my professional brethren with the hope of getting more important informations and also suggestions regarding all cases treated with milk and iodine.

*Case I.*—A Hindu boy of about 5, was suffering from arthritis (probably of septic origin). Left knee-joint was affected. Moderate fever was present. At first he was injected with Strepto and Staphylo vaccine, but no good having resulted, milk plus Tr. Iodine was injected.

In the 1st injection 0·5 c.c. of fresh cow's milk and Tr. Iodine B. P. ♏ i was pushed by the intramuscular route and the doses of milk by 0·5 c.c. and of Iodine tincture by ♏ i was increased upto 5 c.c. of milk and 5 minims of tincture iodine at every injection which was done bi-weekly. Severe reaction i.e., pyrexia with rigor and pain, at the site of injections followed after 1st three injections. The case was completely cured after giving ten injections.

*Case II.*—One Muhammadan of middle age was suffering from gonorrhoeal rheumatism for a long period and not satisfied with many other treatments came under my treatment and recovered after fifteen injections of milk and Iodine beginning from 2 c.c. of milk and 3 min. of Tr. Iodine B. P. The dose was increased gradually by 1 c.c. of milk and 1 min. of Tr. Iodine at every injection given twice in a week.



*Case III.*—A Muhammadan young man of about 28 years was suffering from chronic periostitis for several years and had undergone many kinds of treatment, medical and surgical and finding no relief, came to me. The dose beginning from 2 c.c. of milk and 3 min. of Tr. Iodine B. P. was gradually increased as in the case of No. II upto 15 injections in the same method and manner. Though he was not completely cured yet, the treatment had relieved him from the most unbearable sufferings. A second course of the same injection was begun and the result will be notified hereafter.

*Case IV.* One Hindu woman, married, nullipara of about 22, was suffering from Leucorrhœa and having had no satisfactory treatment was placed under this one and the result was appreciated in a very short time. Dose beginning from 2 c.c. of milk and 3 min. of Tr. Iodine was increased in the same manner as in case No. II and III to 6 c.c. of milk and 5 minims of Tr. Iodine B. P. She took eight injections and was cured. She is still sterile but does not like to have any more treatment. Along with this injection, vaginal douche with Pot. Permanganate lotion 1 in 1000 twice a day and kalzana two tablets twice daily were ordered.

As I have not yet got any more occasion to treat similar cases I dare not say that this line of treatment will be of value in every case. But I would like to hear the results of similar cases if any, treated by my professional brethren.

The adopted method and technique were :—

The required quantity of fresh cow's milk is boiled in a test tube and allowed to become cool and in a 5 c.c. or 10 cc. syringe, required quantity of Tr. Iodine B. P. and about 0.5—1 c.c. of redistilled water is taken and the milk in the test tube is then added and injected into deeper tissues preferably in the gluteal muscle.

In cases where Lugol's solutions or other solutions of Iodine made with water, no additional quantity of water is required. But in this case, where Tincture Iodine B. P. has been used, a little quantity of water should always be added to dilute the alcohol so that coagulation may not take place.

**Reaction.**—Fever sometimes is very high. The injection is followed by severe local pain which lasts from 24 to 48 and even 72 hours.

The injection should be done generally twice a week but according to the severity of the symptoms and the prolongation of the stages of the symptoms, the period of interval may be longer than a week.

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# A CLINICAL RECORD OF THE KALA-AZAR CASES

BY

DURGA RANJAN MUKHERJI, M.B., (CAL.)

*Late House Officer, Sambhu Nath Pandit Hospital, Calcutta,*
*(1928—1930.)*

A FEW cases of Kala-Azar are cited below to show how widely their clinical pictures vary.

*Case I.* A patient was admitted in the S. N. P. Hospital with a history of slow irregular fever for 6 months, with high fever and bronchopneumonia. He had enormously enlarged liver and spleen. On the 12th day he coughed up sputum with blood and shortly developed profuse hæmoptysis. On repeated examinations Tubercle Bacilli could not be detected in the sputum. M. P. were absent on blood slides. Aldehyde test was strongly positive. Hæmoptysis continued inspite of adequate treatment. On the 4th week, urea stibamine was injected intravenously with remarkable success. The patient was discharged cured after a course of urea stibamine treatment.

*Case II.* A patient was admitted with a history of irregular daily rise of temperature-duration 5 days. He had a typhoid tongue. Just palpable spleen. He had a continuous temperature from the date of his admission to the 24th day of his illness. The Widal test was positive 1 in 100, on the 16th day. Blood count on the 16th day, nothing characteristic, urine culture report-sterile. He had a relapse of fever on the 29th day which continued for another 4 days. The temperature then assumed an irregular character and remained so for a week more ; the temperature then assumed a typical double rise character. The case proved to be one of K. A. in the 6th week.

*Case III.* A case admitted into the Hospital with anasarca. The abdomen was tense with fluid. She gave a history of paroxyms of malarial fever with rigor—9 months. There was no M. P. in the blood. The abdomen was tapped. Enormously enlarged and hard liver and spleen were evident. Aldehyde test was strongly positive. She made a rapid recovery under treatment.

*Case IV.* A patient with a history of fever was admitted on the 4th day of his illness. History of onset of the fever with rigor. He had remission of fever in the evening of the 2nd day. He took 20 gr. of quinine for 2 days before admission into the



Hospital. The temperature continued to be irregular till the end of the first week, after which it became continuous. Quinine tried in the Hospital till the 8th day in adequate dosage. Blood examination on the 14th day—Widal test negative. Many B. T. parasites were found in the blood. Blood picture,—slight leucopœnia, and decrease of polymorphonuclear. Quinine tried once more with vigour but to no effect. The case proved to be one of K. A. in the 5th week. From the case notes cited above it is evident that a case of K. A. may resemble a case of malaria, enteric fever and other diseases such as tuberculosis. Clinical experience shows that there are points of early differentiation and an attempt has been made to describe the points below.

A case of K. A. may begin with a thickly coated tongue due to constipation and as such may be undifferentiable from early cases of enteric and more particularly from malaria. In K. A, the coating disappears from the tongue within three weeks of onset without any further evidence of clinical improvement. Typhoid character of the tongue has been noted in a case of K.A. with a widal test positive 1 in 100. A clean tongue in malaria is rare, so also, in enteric. In K. A. the mouth is clean specially from 3rd week or later on. In enteric, sordes is present. In malaria, the mouth is dirty and usually offensive. In K.A., in the later stage, cancrum oris is characteristic. In K.A. epistaxis is common but is also noticeable in enteric, very rarely in malaria. Bleeding gums are common in K.A, also seen in enteric, rarely in malaria. In K. A. appetite is unaffected and appetite increases as the disease progresses. In malaria nausea and vomiting combined with bilious taste in the mouth are present. In enteric, the patient is too ill to ask for food, or to take it in adequate quantity. In K.A. usually the bowels are regular, dysentery is a later symptom. In malaria constipation is the rule, sometimes choleric diarrhœa (to be described in my paper on cholera to be shortly published) and acute dysentery may be a complication. In enteric, constipation in the first week, diarrhœa, tympanitis in the middle of the 2nd or 3rd week, may be followed by hæmorrhage and perforation. In K.A. with hookworm, acute, profuse hæmorrhagic stools have been noticed. (The reader is referred to my paper. "A clinical record of the cases of Ankylostomiasis in the Journal of the Indian Medical Association, September, 1932.). In K.A. there may be remittent pyrexia and tympanitis may appear with indiscretion of diet in the 4th week. In malaria tympanitis in the height of paroxysms, in acute stage in the first week with loaded bowels is sometimes seen. In K.A. jaundice

appears slowly in the 2nd week or later on but steadily deepens. Early jaundice is common in malaria, and deepens with each attack of fever. Jaundice in enteric is rare and appears late with evidence of typhoid toxæmia. The character of fever in K.A, widely varies. It may be intermittent, high or low temperature but more often of low remittent type. In K. A., malaria-like temperature with a daily accession with rigor is noticeable in cases associated with malarial parasites in the blood, the rigor disappears with the administration of quinine and the temperature becomes slow and continuous, although, M. P. may still be found in the blood slide films. If quinine in these cases is discontinued, the temperature shows a double daily rise near about the 4th week. A single accession of temperature daily is noticed in pure cases of K. A, without malaria parasites in blood, in such cases rigor, chill, nausea, vomiting and want of appetite are always absent. A continous fever as mild cases of typhoid or more particularly as a recurrent type of paratyphoid fever is more commonly seen in the early stage of K.A.

In K. A. enlargement of the spleen is very slow but progressive; the spleen enlarges on all sides and appears to be smooth and soft. It is rarely tender and movement of the spleen with respiration is less evident. Quinine may temporarily and slightly retard the progress of enlargement of the spleen. Injections of antimony, in acute stage in therapeutic doses, may cause a slight enlargement of the spleen. In malaria, the spleen rapidly enlarges during paroxysms, and may slightly recede in the afebrile period. Quinine invariably checks its growth. The upward and downward enlargement appears to be more marked, the splenic margin and the notch can be easily detected. The spleen rather feels hard to the touch. Perispleenitis, basal congestion of the left lung and basal pleurisy on the left side are common. Very small and very large spleens of malaria and K. A. cannot be differentiated by palpation. In enteric the spleen may occasionally enlarge more than a fingers breadth below the costal margin in the 2nd week but never progressively enlarges. The consistency of the spleen in enteric widely varies. But usually it is much less hard than in malaria. The spleen may be tender.

In K. A. the congestion of the lungs is evidenced by fine crepitations throughout the lungs symmetrically on both the sides from the early stages and may persist until afebrile under treatment. Evidence of bronchopneumonic patches with small rise of temperature and slight enlargement of spleen has been seen to be confused with early cases of pulmonary tuberculosis, where lung symptoms persist over three weeks. Diagnosis of such cases are only possible with development of clinical picture in the usual course by X-ray examination and by the Laboratory aid in particular. Hœmoptysis has been noted in a few cases of K. A. In malaria, bronchial catarrh is common in the aged and infants during high fever. Atypical lobar pneumonia, is seen in small percentage of cases in malaria only. Pneumonic signs appear with slight basal congestion in the pyrexial stage and rapidly develop into, double, massive lobar pneumonia. The pneumonic phenomenon can be prevented by timely administration of Quinine. Quinine in the actual pneumonic stage hastens œdema of the lungs. In enteric all secondary lung troubles are noticed. Bronchopneumonia from bronchitis is common. The lung troubles in enteric show a typical but prolonged course. In K. A. the lung catarrh quickly disappears with injections of antimony.



In K. A. a dull head-ache has been complained of by a few cases of K. A. As a rule the patient does not look so ill as he should have been according to the duration of his illness and thus resembles a case of B. Coli infection. The sleep is normal, delirium has been noted in a few cases of K. A. after the 4th week specially if quinine is administered in cases having no superadded malarial infection. Aphasia, listlessness, comatose condition or early and rapidly setting in of delirium has been seen in some cases of malaria. Delirium is characteristic of typhoid fever and its development is usually slow, typhoid state and abdominal symptoms are associated with it. Facies in K. A. is rather puffy and anæmic, and the characteristic hair may be noticed. Typhoid facies in typhoid fever, in malaria, a dry face or flushed cheeks. In K. A. the pulse is proportional to the temperature. The pulse may be quicker after the 4th week but irregularity is rare. In enteric the pulse is dicrotic, slow, proportional to the temperature. Morris' atropine test may be positive. The pulse rate steadily rises from the middle of the 2nd week and may become quick and irregular. In malaria commonly the pulse is slow. The rate increases slightly with elevation of temperature. Quickening of the pulse is noticed with respiratory or abdominal complications only. The urine in malaria is high coloured, in K. A. normal, in typhoid, variable, usually scanty and slightly red.

All cases showing a positive aldehyde test have been found to be cases of K.A. clinically, so also in Chopras' test. L. D. bodies have been found in the spleen puncture smear of 4 cases out of 6

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All cases showing a positive aldehyde test have been found to be cases of K.A. clinically, so also in Chopras' test. L. D. bodies have been found in the spleen puncture smear of 4 cases out of 6

well developed cases of K.A. A positive widal test in a case of K.A. may mean that the case may have had an attack of enteric fever before or that widal may in certain cases of K. A. be positive or that he has been suffering from both enteric and K. A. A definite opinion on this point cannot be formed in the absence of a positive blood culture report. Presence of M. P. in the blood means K. A. with malaria for which quinine therapy may be helpful for diagnosis, though not essential for treatment and diagnosis. When blood is forcibly drawn, from a case of chronic K.A. into the urea stibamine solution in a syringe in the process of intravenous therapy, a muddy red colour precipitate is noticed.

The immediate reactions with injections of Sodi Anti. Tart, sol intravenously may be severe, the temperature may rise to 105 F, with a rigor and may persist for 24 hours unless a very small initial dose is used. The size of liver and spleen may increase and may be associated with nausea, vomiting, scanty micturition and deepening of jaundice. Evidence of cardiac dilatation and choleric diarrhoea is in the record. Toxic symptoms are very common in the very acute or very chronic cases specially if the initial dose is heavy or given at frequent intervals in the end of the course of treatment.

Neostibosan is mild in its reactions and slow in its action. Repeated injections of big doses are necessary, at close intervals, to effect a cure without a relapse, the total period of treatment is short. Toxicity with neostibosan is a late phenomenon.

Ureastibamine produces a moderate reaction and its toxicity is for less than S. A. T. Sol. Injections of ureastibamine at moderate intervals in moderate doses effect a cure without a relapse. Every injection produces a therapeutic effect. It increases the tolerance of the patient to higher doses. Delayed toxic symptoms have not been seen.

Antimony preparations are specific for K. A. and cases of K. A. in very late stage have been seen to be cured. Caution however is necessary in cases having contra indications to its use. One case of K. A. with enlarged and hard liver and spleen with slight jaundice but without albumin or cast in the urine, developed unconsciousness 6 hours after the injection of an initial dose of one commonly used antimony preparation given with ordinary precautions.

He died on the 3rd day with anuria, jaundice and coma.

Total number of cases. K. A.—172; Enteric-130; Malaria-275

My thanks are due to Lt. Col. A. Denkam-White. I. M. S. for his permission to the publication of the hospital case records.

# ANKYLOSTOMIASIS AND ASCARIS WITH MALARIA AS COMPLICATIONS OF PUERPERIUM

BY

DR. DAVID PERERA

*Medical Officer, I/C Poonagalla Group Hospital, Bandarawela, Ceylon.*

MURUGAIE, an Indian Kankapillay's wife, aged about 27 years, was admitted to the maternity ward of this hospital for confinement on 18-8-32. This is her fourth para and only one child from the previous births is living and is now 3 years old. She was very emaciated, debilitated, pale and anæmic. She had suffered from malarial fever off and on some months ago which was said to have stopped with treatment by Cinchona Febrifuge. Her legs and ankles were œdematous and abdomen was very abnormal and extra large. Pelvis contracted.

On 29-8-32, she developed dysentery with every symptom of griping pain and straining at stools. Pulse 120, temperature, 99 to 103 F; tongue furred, spleen enlarged, liver normal, and lungs clear.

Mist Ol Ricini with salol was given three times a day. On the following day motions were free from mucus and blood and the temperature was 97 during the whole day.

On 31-8-32, temperature was between 99-and 102. F. and patient complained of pain on back of spine. The mixture was omitted and quinine bisulphate grs. x was given with the intention of inducing labour too. At 8 p. m. she developed eclampsia and pulse shot up to 140 per minute and temperature to 102 F. The fits lasted only a short time but reappeared at 9 30 p. m. with pulse rate of 120 and temperature 105. She was given Bromide mixture with opium. The District Medical Officer who was called in on consultation advised the case to be allowed to nature as delivery by other means may aggravate her condition due to the extreme weakness of the heart.

1—9—32, She slept off and on for a short while and fits did not develop. Temperature came down to 98 and pulse to 82. Membranes ruptured at 6 a. m. but pain ceased. Pituitrin injection was given at 8 a. m. Delivered a dead baby of very small size with features of a monster at 8-40. It had eyes above the forehead and head was very flat and neck very short and hardly visible. She had profuse hæmorrhage and collapsed a short while later; when

camphor in æther was injected, she revived. There was prolapse of uterus and retention of placenta which had to be extracted manually under chloroform. 1 c.c. Pituitrin was given subcutaneously and hot Lysol douche twice a day and mist quinine and Ergot ℥viii, ℥ i Tds. ordered.

2-9-32. Slept fairly well in the afternoon and at night too.
" Morning Temperature 96.4 Pulse 110
" Evening " 79 " 110

Added Tinct. Digitalis to the Quinine and Ergot mixture. Lochia was very scanty but not offensive.

3-9-32. Slept well. Bowels opened twice.
" Morning Temperature 100. Pulse 126
" Evening " 101.4 " 128

Electrargol was given intramuscularly. 5-9-32 Temperature and pulse kept at the same rate as yesterday. Electrargol was injected. Radiostoleum one tea-spoonful was ordered twice a day. Complained of breast pain where there was inflammation. Applied ung. Ichthyol and Belladonna after hot fomentation.

6-9-32. Morning Temperature 100·6. Pulse 120
" Evening " 102·4 " 140

Bowels opened once. Lochia offensive. Douching continued.

7-9-32. Slept well. Morning Temperature 100·6 Pulse 126
" " Evening " 101·4 " 132

Bowels opened once. Discharge still very offensive. Twice Electrargol injection was given. Breast pain better.

8-9-32. Morning temperature 101·4. Pulse 128

Bowels opened twice. Discharge still offensive and scanty. In the evening, temperature came up to 103·4 with terrible headache. Phenacetin and caffein cit. powders brought it down to 101·6. Quinine and Iron mixture with Liq. strychnine and arsenicalis was given.

9-9-32. Slept well. Temperature was between 101 and 102. She vomited once.

10-9-32. Temperature was between 99·8 and 102.6
" Pulse " 116 " 130

Bowels moved twice and she passed 1 round worm.



11-9-32. As it was a typical case of ankylostomiasis complicated with round-worms and malaria, I prescribed Beta napthol co with quinine and santonin for 2 days and omitted the mixtures.

Morning Temperature 101·6. Pulse 120
Evening " 101·6 " 130

Bowels moved 4 times and the patient passed 4 round-worms.

12-9-32 Bowels moved 6 times and she passed 4 worms in addition to hookworms.

13-9-32. Bowels opened twice. Temperature was between 97·8 and 100.6 and pulse 100.

As swelling had not subsided yet, Ferri et quinine mixture with Liq. Strychnine and arsenicalis was given.

14-9-32. Morning Temperature 97·8. Pulse 110
" Evening " 99·4 " 110
15-9-32. Morning " 97 " 90
" Evening " 97 " 92
16-9-32. Morning " 97 " 100
" Evening " 97·4 " 90
17-9-32. Morning " 96·4 " 78
" Evening " 100 " 100

At this stage, I prescribed 30 five grain cinchona Febrifuge tablets to be given for 5 days 2 tabloids T. Ds. During this period temperature was normal. From 21-9-32 Quinoplasmine tablets were given one twice a day for 7 days, and the patient was discharged in perfect health. So far, no complaint has been received. She has improved immensely.

I am distinctly of opinion that complications of the puerperium and the formation of the monstrous looking, underdeveloped baby were due to advanced hookworm complaint.

I feel it my duty to mention the benefit the patient derived by the use of vitamin A preparation, Radiostoleum.

# A SHORT NOTE ON THE TREATMENT OF A CASE OF CARBUNCLE AT THE MAIBONG STATE DISPY, CACHAR, ASSAM.

BY

DR. ASWANI KUMAR PAUL,

*I/c Maibong State Dispy P. O. Maibong Dist. Cachar.*

A PATIENT named U. Kachhari age 45 years of moderate health came to me on 9-3-33 with the complaint of inflammation on his back. I applied Hot Boric Fomentation to the part affected and painted it with Tr Iodine. He was treated as an out-patient.

On 10-3-33 in the morning, the patient again came to me and I found several vesicles had developed with red margins. The part was painful. Dimensions of the inflamed part were $4\frac{1}{2}" \times 3\frac{1}{2}"$. I diagnosed this as a case of carbuncle. His temperature was 102. F. Urine was examind and found normal.

One dose of castor oil was given to the patient. I remembered the Morrison's Paste. Generally we call it in the Hospital "Magsulph Paste" (Two parts of magsulph and one part of glycerine.) The part was fomented and I applied this paste on the back, and the part was covered with Aseptic gauze and cotton and then bandaged. By application of this paste, the vesicles turned into pustules, the part presented "Cribriform appearance". Daily, the paste was changed.

On 20-3-33, his temperature was normal. I gave him Iron Tonic mixture with Tr Nucis vomica. The granulating wound healed under Boro Idoform powder. The patient was completely cured on 16-4-33.

I wish to impress on the readers the efficacy of this paste in select cases of Carbuncle. So far as my experience goes, this paste is efficient in non-diabetics.

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# The Antiseptic

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## AN ILL-FATED BILL

THE Select Committee of the Legislative Assembly was in labour for a whole day recently and brought forth, an ugly, deformed, hydrocephalic monster, a freak of bureaucratic Nature, in the form of an All-India Medical Council Bill, the like of which has never been seen or heard of in any other part of the world. Evidently, there must have been a fierce tug-of-war, between the Government and the pro-nationalist members in the Select Committee over that vexed question of admission of L. M. P's in the All India Register, resulting in an unhappy compromise by which the Government agreed to abandon the Register altogether, while the opponents on their part gave their tacit consent to the denationalisation of the Council. Thus, the Bill, as emerged from the Committee, is wholly different in form and in substance, and is nothing short of the kind of Council, which the General Medical Council of Great Britain demanded as an alternative to the Commissioner of Medical Examinations which they proposed and which was rejected by the Assembly some time ago.

As regards the composition of the Council, it is preponderatingly official. The President is to be nominated for the first four years and he cannot but be an official for the time-being. Each Governor has to nominate a member and the members will be either officials or non-officials bowing to the dictates of officials. The Senate of each University where there is a medical degree is to elect a member preferably one with teaching experience and the Senate, packed as it is with medical men holding high offices under the Government, the choice will surely go to an official. Further, medical men, with teaching experience, are hard to find

among non-officials. Then comes the election of one member by the graduates from each province. Here, again, the non-official element is exceedingly small and no more than 50% of the non-officials can hope to succeed in the election, if at all they care to stand for it. Lastly, there is the nomination of three members by the Viceroy. Thus, in a Council of about 33 members, there will be a sprinkling of three or four members of the Independent medical profession and this Council is to regulate the standard of medical education of graduate qualifications in this country, through enquiries made by its Inspectors! In our opinion, this Council is nothing more than an advisory body of officials picked up from the various provinces and consisting mostly of I. M. S. men and their subordinates and such a Council will certainly dance to the tune of the General Medical Council of Great Britain, and cannot be expected to act independently in the best interests of India. We think the Legislative Assembly has been sufficiently avenged for its original sin of having turned out the Government of India's proposal to appoint a Commissioner nominated by the General Medical Council. We know, however, that the Assembly was then in favour, not of a puppet council of this kind, bereft of all powers and responsibilities, but one, equal in rank and status to those in other countries of the world and befitting the dignity of India, as an equal partner of the British Empire.

Now, coming to the functions of the Council, the two most important functions, Viz:—The maintenance of a register and the disciplinary control which it must exercise, have been given up, the respective Provincial Councils continuing to function them as before. There remain but two minor functions for them now to discharge, viz (1) the securing of a uniform standard of higher qualifications of medicine in all provinces and (2) the arrangement of schemes of reciprocity with the medical authorities of other countries. The first function is only nominal, for the Council has to depend entirely on the report of their Inspector and if merely to dot the *i.s.* and cross the *t.s.* this Council is intended, then this function may as well be discharged by the respective Provincial Medical Councils themselves and this costly and stupendous Council is quite unnecessary for the purpose. As regards reciprocity, the Council stands in a still more degrading position. It has to admit the qualifications of other countries in the first instance, then negotiate for reciprocity with them and after four years, if those countries do not come to terms, the Council has simply to report the matter to the Viceroy, whose decision is final.



This is a 'safeguard' against any adverse vote of the Council, debarring any foreign qualifications from being registered in India and this safe-guard takes away even the semblance of power which this Council is said to possess.

Lastly, comes the question of cost. In the absence of any registration fee, we would like to know who is to foot the bill of this Council. Either the Govt. of India must shoulder the full burden or the respective Universities must share the cost. We would strongly protest against the tax-payer paying for a Council, in which he has no part or lot, no voice or representation. This All India Medical Council being only an euphemistic term, to denote the Inter-University Board, which the various Universities wanted to create and the Council being solely in the interest of the Universities, we think the Universities must bear the entire cost of the Council.

Before closing, a word about the poor L. M. Ps., will not be out of place here. They have nothing to gain or lose by this Bill. On their behalf, we take this opportunity of thanking the members of the Select Committee for at least saving them from greater humiliation and danger of estrangement from their graduate brethren, which the original Bill intended to do.

The closing scene of this farcical drama will be enacted in the Legislative Assembly shortly and it remains to be seen whether it is going to adopt this cephalic monster as its pet child or throw it away as unworthy of India. We anxiously await its performance.

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# GLEANINGS FROM MEDICAL PRESS.

## MEDICINE AND THERAPEUTICS.

**Renal Oedema.**—The sequence which leads up to œdema of the renal type has never been understood. Of late years increasing support has been found for Epstein's adaptation of Starling's theory, which attributes waterlogging of the tissues to a low protein concentration in the plasma with consequent lowering of the osmotic pressure of the blood to the level of capillary pressure. It has been so often demonstrated that oedema of what may for convenience be called the nephrotic type is intimately associated with an abnormally low concentration of the plasma proteins, especially the albumin fraction, that this relationship must be accepted. It is by no means clear, however, that the diminished

concentration of albumin is actually the precipitating factor in œdema of this type. Observations of a contrary significance are recorded such as loss of œdema without change in the blood protein concentration; moreover the part played by changes in the plasma volume is disputed.

In view of this lack of agreement about the water content of the blood in œdema and the part played by the plasma proteins, McClure, de Takats, and Himman have made a detailed investigation of the blood of seven children with œdema of the nephrotic type. They have studied their cases in all phases of acute attacks with the object of discovering the time relationships between alterations in the plasma proteins, the water content of the blood, and the different stages of the œdema. If the œdema is caused by inability of the kidneys to excrete water, then the water of the blood should increase with advancing œdema and fall in diuresis Alternatively, if it is caused by loss of protein from the blood, diuresis should be preceded by a rise in the protein concentration-notably in the albumin fraction. The careful and considered observations of these workers show decisively that the relative volume of the plasma is below normal during the advancing stages of œdema. Towards the onset of diuresis the relative volume increases, and the increase is maintained during diuresis and may even exceed the normal level. This is explained as the result of a reflux of fluid from the tissues to the blood in diuresis. The plasma proteins, and in particular the albumin, are below the critical level of Moore and Van Slyke (5.5. per cent, total protein and 2.5. per cent. albumin) during advancing œdema. They remain below this critical level during advancing œdema. They remain below this critical level during and just after the phase of diuresis. After diuresis there is a gradual return of the composition of the blood towards normal. Allowing for possible fallacies, it is therefore concluded that there is no significant increase in the plasma proteins before diuresis. They interpret the process of œdema as a movement of water from the blood to the tissues controlled by some unspecified extravascular factor. The primary cause is not to be sought in the kidneys, which are able to excrete water as soon as it becomes available for excretion. The possible part played by the capillary walls is not discussed, nor do the authors of this paper attempt to explain the associated albuminuria. Nevertheless their contribution to our knowledge of the water balance in nephritic œdema is a substantial one.—*Lancet. Aug. 5 '33.*)

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**Treatment of Malaria.**—W. Fletcher (Trop. Dis. Bull., April. 1933. P. 193) reviews the literature relating to the newer lines of treating malaria, with special reference to the synthetic drugs. The experiments which led to the isolation of plasmoquine are summarized. In subtertian malaria this derivative of amino-quinoline was found to destroy all forms of *P. Vivax* and P *Malariae*, and the gametocytes of *P. Falciparum* in the peripheral blood. By itself it had, however, no destructive action on the schizonts, and was therefore, associated with quinine. It was found to be more effective than quinine in benign, tertian and quartan malaria, reducing the relapse rate materially, but certain strains of parasites appear to be resistant. Plasmoquine acts also as a prophylactic, but it is possible that the dose required for complete protection is too large to be safe. The toxic action of this drug is more pronounced than at first supposed, and symptoms of poisoning may start abruptly. A reasonably safe daily dose is said to be about 0.03 gram, provided that it is given for a period of not longer than six or seven days without a break. Fletcher concludes that the real value of this drug lies in its power to cure rather than to prevent the spread of malaria. Atebrin is safer; the usual dose is 0.1 gram three times a day, twice this amount being generally well tolerated. It destroys all forms of benign, tertian and quartan parasites, and also the schizonts of malignant tertian, but leaves the crescents untouched. One of its great advantages is that a short course of five days' treatment appears to be as efficient as a long course of quinine. Stovarsol is said to be of great value in chronic cachetic malaria, but only acts on the benign tertian parasite, and is usually combined with quinine.—B. M. J. Aug. 5 '33.

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**"Free Diet" in Diabetes.**—K. Stolte (Medl. Klinic, April 21st, 1933, P. 561), advises that all diabetics—even children—should be permitted a greater choice of food, while glycosuria and hyperglycaemia are controlled by appropriate doses of insulin. Children on a "free diet" continue to thrive, and occasional carbohydrate excess does not disturb the "total" metabolism. It is evident that such a diet satisfied a systemic need which cannot be assessed; the patient's appetite is a guide to the quantity of albumin, fats, and carbohydrates that he can assimilate. Stolte anticipates that these revolutionary ideas will evoke opposition. His former practice was based upon the experience of the preinsulin period, when diabetes and derangement of carbohydrate metabolism were thought

to be so closely connected. He believes that the current teaching that faulty degeneration of the liver in diabetes results from disturbance of carbohydrate metabolism is incorrect. The overloading of the liver with fat may be due to absence of other vitally important substances besides insulin. A remarkable fact has been noted by various observers namely, that the diabetic who receives a dietary rich in carbohydrate requires less insulin than the patient who has an excess of fat in his diet. Such excess may inhibit the action of insulin. This places the question of fat metabolism in diabetes in an entirely new light. The formation of acetone bodies from fats was formerly the most alarming symptom of diabetes. Though this danger is now less, there is, it is stated, incontestable evidence that excess of fats will produce hyperglycaemia in healthy persons as well as in diabetics, and that therapeutic failure has been described frequently as an expression of 'Insulin resistance'. Stolte hopes that it will soon be recognized that the administration of an excess of fats is a therapeutic error closely analogous to the administration of common salt to patients suffering from nephritis accompanied by œdema.—*B. M. J. Aug. 5 '33.*

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**The Treatment of Nervous Disorders accompanying anæmia.** William Sargant (*Lancet*, Dec. 17th, 1932) claims very good results in the treatment of the nervous disorders in anæmia with large doses of Iron. Nine cases in all were studied. Six were classed as subacute combined degeneration and three showed evidence of severe posterio columnar or peripheral neuritis. Bland's pill in doses of 150 grs. per day was given for two or three months and then a continuation dose of 40 grs. a day was used to prevent relapses. Improvement was seen in three weeks to a month from the commencement of treatment. Recovery has occurred either partially or entirely in sensation, locomotion, balance, positional sense, co-ordination, vibration sense and deep reflexes. In five of these cases, iron restored or maintained the blood count, thus demonstrating the existence of subacute combined degeneration and peripheral neuritis even with simple achlorhydric anaemia. In cases accompanying a primary anaemia which had previously received better treatment, substitution of iron for liver lead to a fall in the blood count but no improvement in the nervous phenomenon. But in these cases a further course of liver treatment raised the blood count also. Since the knowledge of normal process of iron utilization is inadequate, the author thinks it too



premature to attempt an explanation of iron metabolism to the changes in the Central Nervous System.

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**Raw Apple Diet in the Treatment of Diarrhœal Conditions in Children.**—T. L. Birnberg (*American Journal of Diseases of Children*, Jan. 1933, p. 19) writes about the efficacy of a diet of raw apples in the treatment of diarrhœal conditions in children. 500 to 1500 gms. of grated raw apples daily working to about seven to twenty medium sized apples were given to children, the quantity depending on the age of the child. This treatment was persisted in for two days usually and occasionally for 4 days. The apple is peeled and coxed and scraped to a pulp. 1 to 4 tablespoonful of this pulp is given every 2 hours for 48 hours. Sometimes sugar is added. Nothing besides the apple should be given unless the patient craves liquids or intoxic, in which case weak black tea was given. After 48 hours the patient was given a transitional diet containing no milk or vegetables but containing cooked cereal (without milk), toast, cocoa (made of water), rice and soup. The child is kept on this diet for 48 hours and then gradually given normal diet. Milk is the next item added, then vegetables, and fruits last. The author has tried this treatment on 70 cases, whose ages ranged from 9 months to 11½ years. Most of the troublesome symptoms such as fever, loose stools, mucous, pain and toxicosis were all relieved.

Various theories have been advanced regarding the efficacy of this treatment. It is claimed that the apple pulp provides a non-irritative filling which purifies mechanically and acts as an absorbent, others believe that it is the taurin and malic acid in the apple that is the curative agent.

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**The Use of Hydnocarpets and Morrhuates intradermally in Lupus vulgaris.**—Sir Leonard Rogers (*B. M. J.* Jan. 14, page 47) gives his experiences with regard to treating a very chronic case of Lupus Vulgaris with intra dermal injections of ester morrhuates and hydnocarpates. A female, aged 42, gave a history of having suffered when a child from "abscesses" on her head and base of spine and later from ulceration, when seen, affected whole of both cheeks, extended across forehead and chin, and over both sides of the neck, and had a raised, thickened margin surrounding the whole of the diseased area. Treatment was commenced by injecting a drop or two of ethylester morrhuate intradermally at several points at each setting into the thickened edge of a patch.

Different areas were dealt with at each weekly visit. Within two weeks the thickening of the treated area showed definite reduction. The same beneficial effects were seen in other areas as well. As progress with morrhuates was slow, the more active ethyl ester hydnocarpate (Moogool) combined with 4 per cent creosote as an antiseptic, was used. This was more effective. This however was followed by ulceration in older, uninjected parts at the centre. A return was therefore made to morrhuates. The ulcers were only dressed with a simple dressing. The ulcers healed leaving healthy skin. It was therefore apparent that the hydnocarpate injections, in addition to their local effects had at beneficial effect on the uninjected, long-affected central portions of the lupus patches. The treatment with hydnocarpates was then continued with rapid improvements. At the end of a year the thickened diseased areas had nearly all disappeared and the intervals between injections were increased from one week to two and later to three weeks. Breaking down of central areas ceased, the appearance of the affected skin improved and the marginal thickening practically disappeared.

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**Complications of Common Cold.** Yates believes that the common cold is devoid of complications except in the following circumstances: (1) When the discharges are confined within a sinus or within the middle ear by reason of the swelling of the mucous membrane, which interferes with drainage. (2) When there is a secondary infection from contact with a person whose nose contains micro-organisms that are resistant to the natural, power of destruction of the nasal mucus and thus live and multiply within it. (3) When the mucus in the nose is diluted either by nasal douching or by bathing. (4) When the common cold affects a person who is in ill health. The complications of the common cold are found: (1) Within the nasal sinuses; diagnosed by the presence of pain and relieved in the early stages by cocainization of the nose and thus effecting drainage, and in the later stages by washing out the sinuses with liquid petrolatum. (2) Within the ear; acute otitis media is treated by efficient myringotomy (the sooner myringotomy is performed, the quicker the recovery). (3) Within the larynx and bronchi, laryngeal and bronchial complications are treated by sprays of liquid petrolatum which aid the cilia in conveying the excess of mucus through the trachea and the larynx—*Practitioner* (London) *thro' California & Western Medicine.*

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**Glucose-Insulin in heart Disease.**—Reviewing the evolution of glucose and glucose-insulin therapy in cardio-vascular disease, *Shirley Smith* remarks that while these methods are of value in congestive heart failure glucose-insulin is likely to be of special benefit in arterial and coronary syndrome. Case reports are cited which show the glucose-insulin therapy has proved successful in intractable angina pectoris. It is believed that anginal pain is related to faulty carbohydrate metabolism in the heart, and that insulin acts immediately by its stimulating effect upon glycogen metabolism in the heart and progressively by promotion of the combustion of fat, this process leading to resolution of early atheromatous changes in the coronary arteries. Smith describes a method for the application of glucose-insulin therapy in angina-pectoris, which he suggests should receive careful and extended trial.—*Prescriber.*

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**Toxic Effect of Bismuth Treatment.**—O. Fischer adds to the recorded examples of the risks of bismuth treatment in syphilis with the case of a young woman who had severe secondary ulceration of the tonsils and fauces, in which the spirochætes were abundant, the Wassermann also was strongly positive. She was undergoing a course of bismuth which was clearing up the lesions, when after the seventh injection ulcerative enteritis set in and continued for a month in spite of the bismuth being stopped. No other toxic symptoms were observed, and Fischer explains the accident by the probable presence of an excess of sulphide of hydrogen in the intestines at the time leading to an unusual local elimination of the metal. (*Leipzig: Dermatologische Wochenschrift*). —*Medical World.*

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**Iodine Injections in Hepatic Cirrhosis.**—M.Chabe (Gaz. Hebdomad. des sci. Med. de Bordeaux, April 2nd, 1933, p. 215) refers to Carles's communication (1930) on iodo-iodide injections in chronic serous inflammations. Carles stated that cases of alcoholic cirrhosis were the most favourable for this treatment, and that wine-drinkers yielded the best results. Chabe showed his patient, a woman aged 53 years, a heavy wine-drinker, who had extreme ascites with splenic hypertrophy, pollakiuria, arterial hypotension, and dyspnoea. She appeared to have extreme cirrhotic cachexia. He tapped the abdomen, removing about 350 oz. of lemon-yellow fluid. The operation was repeated four times. In three weeks the total amount withdrawn was about seventy pints. The

cachexia increased greatly and the patient appeared moribund. After another partial paracentesis (leaving about seven pints of fluid) Chabe injected 34 minims of the following solution...iodine 7½ grains. potassium iodide 15 grains, distilled water 7oz. Twenty injections by 17 minims. The final dose was 85 minims. There was a slight increase of ascitic fluid. Five months later the patient's appetite and sleep had returned and her health had improved; she was able to do a little work. The ascites had increased slightly, but further tapping was unnecessary. The patient was given a strict lacto-vegetarian diet, with small doses of calamol occasionally, and pills containing euonymin, podophyllin, and belladonna extract. Chabe observes that repeated tappings had exhausted the patient, but he believes that the iodine injections stimulated the "lymphoid" tissue and promoted vascularization of adhesions, thus establishing a collateral circulation. It is probable that further paracentesis and another course of iodine injections may become necessary.

**A Simple Treatment for Sycosis.**—The lot of the chronic sycotic is not a happy one. Covered day and night by ointments or lotions, subjected to weekly injections of vaccines, stock or autogenous, blistered or exfoliated by the mercury-vapour lamp, epilated more or less successfully by X-rays, and finally painted green or violet according to the artistic bent of his medical adviser-such are therapeutic phases through which many of the unfortunate sufferers have passed and have remained uncured. Dr J. J. Avit Scott describes a form of treatment which by virtue of its simplicity and absolute harmlessness deserves a thorough trial. He speaks with the best of all authority, that of personal experience, for he was himself a victim to chronic marginal blepharitis, which is often an association or complication of sycosis. This he cured with nightly applications of a 75 per cent solution of ichthyol, after washing the lids with a weak solution of glycothymoline in warm water. His intranasal sycosis yielded to the same treatment, and he then proceeded to apply it to cases of chronic sycosis in the out-patient departments of the Birmingham, Midland and General Hospitals. Small pustules were pricked with a sterile needle, and the affected parts washed with a 10 per cent. ichthyol soap, after which the same solution was painted on. The paint, he says, dries on and does not come off on the bed linen. Washing next morning removes all traces, and no further treatment is advocated in the daytime-another great advantage. If scaliness



should ensue towards the end of the treatment, a little yellow oxide of mercury is permitted. Dr. Scott adds that the treatment must not be used for recent acute eczematised examples of the disease, which yield better to a 2 per cent. zinc sulphate solution in calamine lotion. The average duration of cure by his method would appear to be in the neighbourhood of two months; this is not too bad for a condition which, untreated, may last ten years or more.—*Lancet, June 17 '33.*

## SURGERY

**Acetylcholine after fractures.**—Pain, stiffness and bony atrophy are commonly seen after injuries in or around a joint, especially when the limb has been immobilised in plaster. Leriche calls this condition post-traumatic osteoporosis, and treats it by sympathectomy, apparently with satisfactory results. Roger Fisher, of Geneva, now states that injections of acetylcholine every second day, over a period of 20 days or more, can effect a cure. He quotes an imposing number of cases to support his contention, and concludes that the clinical facts are established and have been confirmed. So pleased is he with the result of acetylcholine treatment that he now adopts it as a routine for the prevention of stiffness and pain wherever a joint has to be immobilised in plaster. The drug dilates the peripheral arterioles, and if the arterioles in an injured area are constricted acetylcholine's action should be the same as that of sympathectomy. But sympathectomy, though it may relieve the pain and stiffness, does not affect the atrophy of bone as seen by radiography. With acetylcholine, on the other hand, it is said that there is definite amelioration in the calcification of the bone, and Fisher suggests that it not only acts on the vasomotor system but also governs local calcium metabolism. This proposition should be considered in the light of the discussion on calcification and decalcification which was reported in our issue of March 25th.—*Lancet, May 13, '33*

**Recurrent Herpes**—The prognosis of the average case of herpes progenitalis is gloomy and the distress, especially the mental distress, of the unfortunate patient has occasionally resulted in suicide. Treatment, mainly directed hitherto to hygienic measures of a prophylactic kind before and after coitus, has been disappointing, and has rarely prevented the rhythmical return of the vesicular eruption. Some successes have been reported following

X-ray irradiation, but this method has obvious dangers and cannot be repeated indefinitely. Mr. M. A. Levy-Franckel advocates "anti-shock" methods in the form of injections. The drugs used by him on eight cases of recurrent herpes, four of which were of the progenitalis type, were cosinate of caesium and trypan-blue, a dye that has been in frequent use since it was introduced for intravital staining by Ehrlich. The former was injected in 6 per cent aqueous solution from 5 c. cm. ampoules. The exact intervals are not stated, but may be assumed to have been about a week. The first case, a man with herpes praeputialis, had 15 injections of the caesium compound, and had been free of the eruption for 11 months at the time of writing. The second case so treated was a woman of 32 with a catamenial herpes of the left cheek. This patient had ten injections and remained free for 13 months, relapsing in February and March of this year. The third patient, a case of herpes praeputialis, had five injections without much benefit and is now undergoing treatment by trypan-blue injections. This is stated to be superior in action possibly because it is eliminated more slowly. It is given as a 1 per cent. soultion in sterile water, each dose being 1-2-c.cm. Besides its relatively long retention this drug has the further advantage that extravenous leaks have no more serious effect than somewhat prolonged local staining of the skin. There are no constitutional complications to be feared. The dye is not excreted either in the urine or faeces, but solely and very slowly by the skin. Staining of the conjunctiva resulted in one case from a single dose of 6 c.cm. All the cases treated but one were favourably influenced and the rhythm of recurrence definitely interrupted. The method has the advantage of being easy to apply and free from danger.—*Lancet, May 13, '33.*

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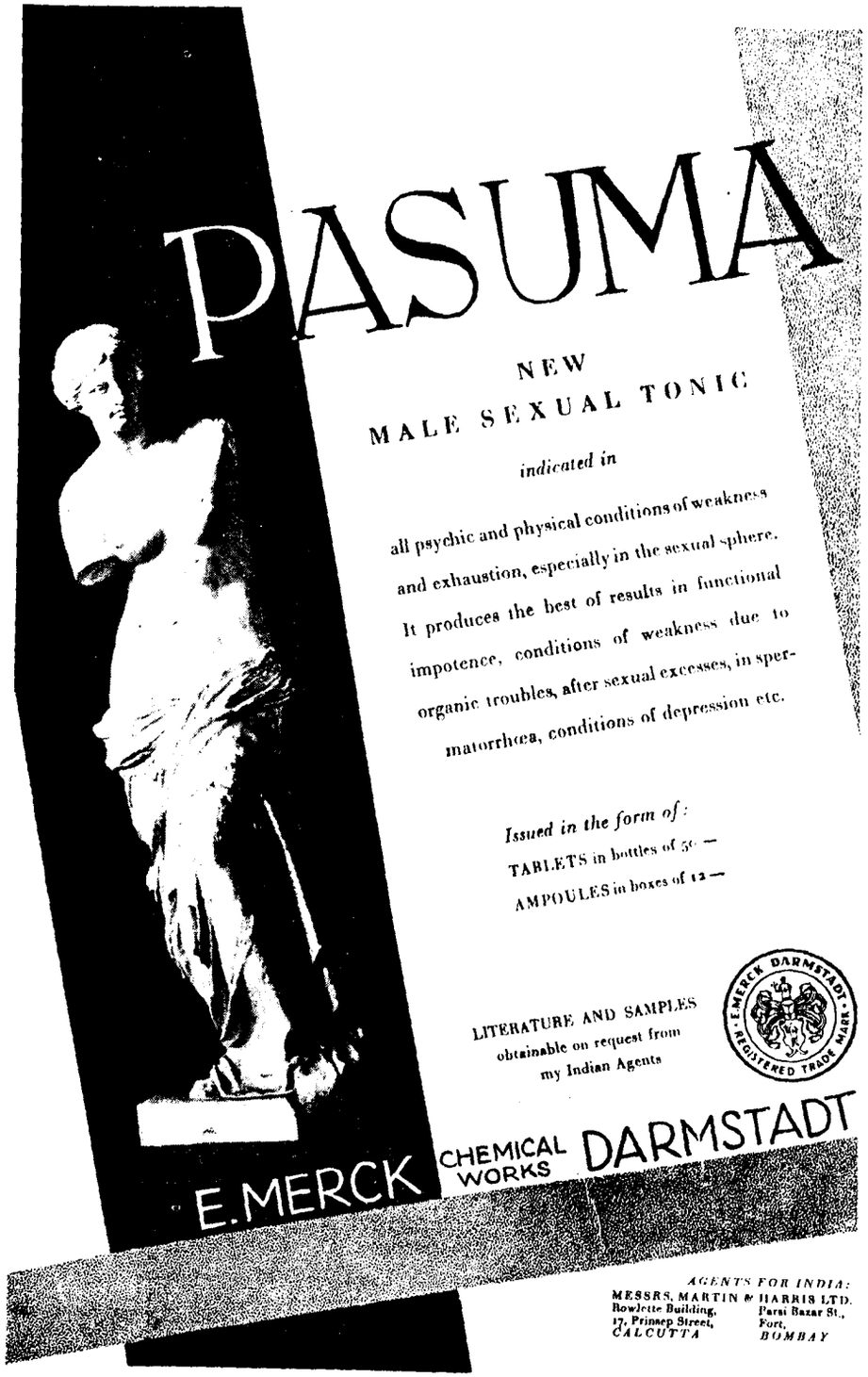
**"March Foot".**—J. S. Spred and T. H. Blake (Journ. Bone and Joint Surg., April 1933, p. 372) identify under the name of "march foot" what they describe as a definite clinical entity, comprising a painful swelling of the forefoot, often associated with an insidous fracture occurring spontaneously in one of the metatarsal bones. Following excessive foot strain there is pain in the forefoot with tenderness over the anterior portion of the second or third metatarsal. A definite swelling ensues, which yields to rest, but the symptoms recur. There are two clinical groups. In the first the condition progresses to œdematous swelling over the dorsum of the foot and localized tenderness over

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the affected metatarsal. After a week or ten days the foot returns to normal. In the second group the onset is similar, but there are subsequent stages of periosteal proliferation, spontaneous fracture, and excessive callus formation. After two or three months the fracture unites, the callus condenses and disappears, and the bone appears to be perfectly normal clinically and radiologically. The author reports a series of ten fractures in nine patients. He defines the X-ray appearances as follows: Soon after the onset there is no bony change, but after two or three weeks there is observable a little periosteal fuzziness at the site of the beginning fracture. A short time afterwards, the periosteal shadow becomes more distinct and circumscribed, and the irregular outline of the fracture is usually clearly visible. Signs of union develop next, with circumscribed callus which may be mistaken for sarcoma. Treatment includes rest and hot applications, followed by toe exercises or strapping. Arch supports may be necessary. The average disability, where fracture has occurred, is from four to eight weeks.—*B. M. J., August 5, '33.*

---

**Treatmenet of Keloid:**—R. Passot (Presse Med., April 5th, 1933, p. 544)describes the treatment necessary for the complete removal of keloid. Recurrence occurs if the smallest portion of keloid is left, and therefore surgical treatment must aim at the excision of the entire keloid mass including any extension below the skin. Excision must be as complete as if a malignant tumour was being removed. After removal of the keloid tissue the depression left must be filled in by a fat graft. After this there is frequently a tendency to the formation of secondary keloid caused by local irritation. This can be overcome by the immediate application of radium. The dermo-epidermic suture gives good results, but where there is a long incision the double intradermic suture is suitable and is less irritating to a sensitive skin. An anchored dressing should be used. In order to prevent the development of secondary keloid it is necessary that radium should be applied either at the time of operation or, at the latest, the day after, when one application will be sufficient. It has been found that if this is delayed a pre-keloid condition will be present by the sixth day, which will be fully developed a few days later. It is suggested that the period of greatest activity for the growth of keloid is in the first few hours, and for this reason simultaneous excision and irraditation is advisable. The tubes each containing 10 mg. of radium, should be placed along the scar at a distance of 1 C.M. from the

skin. If one tube is used it should be left in position for twenty-four hours but while several are necessary, the time should be fifteen to twenty hours. Twenty-two cases have been treated by this method, and there was only one recurrence.

## BOOK REVIEWS

**The Practitioners Library of Medicine and Surgery.** *Supervising Editor, Dr. George Blumer,* M. A., M. D., Professor of clinical medicine, Yale University school of medicine and consulting physician to the New Haven Hospital, supported by a distinguished list of associate editors. Vol. I, Anatomy and Physiology; Vol. II, The Technique of Clinical Medicine; Vol. III, The Practice of Medicine; Vol. IV, Non-Traumatic Surgery. [D. Appleton & Company London & New York.]

**[Messrs Butterworth & Co., (India), Ltd., P. O. Box 251, 6, Hastings Street, Calcutta are the sole agents for this work to be completed in 12 volumes and index, in this country and sets are obtainable from them either on cash or on the instalment system Price Rs, 37-8 net cash per volume, and they will be pleased to send a detailed prospectus of the work and their terms for the easy payment plan, gratis on application.]**

Contemporary advances in medicine and surgery have resulted in a situation which presents a problem to the man in general practice. He is deluged with periodical literature and reviews. He will find it difficult to separate the chaff from the grain.

There is a necessity for a work covering the entire field of medicine and surgery in a way that is comprehensive and concise. It must be all-inclusive, its exposition must be clear; it must be substantial. The Practitioners library in a great measure answers all these requirements. In a series that is well written and well got up it will be difficult to pick out particular sections. All the contributors have presented their subjects very well and in a manner that will be useful to the general practitioner. The illustrations are original and no expense has been spared to make them adequate in number and character for purposes of clarifying and illuminating the text. Thorough indexing and references wherever necessary are provided.

*The First Volume* deals with anatomy and physiology. It presents anatomy as far as possible from the physiological standpoint and emphasizes the bearing of the various anatomical observations on clinical medicine and surgery. The section on physiology is really pathological physiology. Here also emphasis is laid on points bearing on the actual practice of medicine.



*The Second Volume* deals with the technique of physical and laboratory examination in clinical medicine. The chapters on history taking, the blood, the technique of bacteriological and immunological examinations, immunological diagnosis, neurological examination are well written.

*The Third Volume* contains materials ordinarily covered in standard text books on medicine. A lucid account of the present knowledge of each disease is given. The chapters on Tuberculosis, coccal infections, diseases due to physical agents, food poisoning, the Allergic diseases, Pneumonia, the Nephropathies, the diseases of the endocrine glands deserve special mention.

*The Fourth Volume.* Non-traumatic surgery forms the theme of the fourth volume. The division sounds new to us. The Editor-in-chief and Dr. Moise, however, think that such a classification might be a step in the right direction. They say that in many surgical cases, both trauma and non-traumatic conditions like infection are associated. Local infections, neo-plasms, injections, tumours, congenital defects and such other conditions are well discussed in this volume.

**Essentials of Medical Electricity**—*By E. P. Cumberbatch,* M.A., B.M., (OXON.), D.M.R.E., (CANT.), M.R.C.P., Medical Officer-in-charge, electrical department, and lecturer on medical electricity, St. Bartholomew's Hospital, 1933, Seventh Edition, Revised and enlarged, 508 pages, fifteen plates and 132 illustrations. [Henry Kempton, London.] Price 10 *s.* 6 *d.*

The seventh edition of this well known book has several improvements over its predecessors. The earlier chapters, as in previous editions, deal with general principles. The mode of action of electricity on the body, the variety of electric currents used, and the therapeutic value of galvanic currents are all thoroughly described. The chapter on the electric treatment of paralysis is very well written and is very instructive. The subject of high frequency and diathermy is in this edition very thoroughly dealt with. Beginning with an introductory chapter dealing with high frequency currents in general and the principles underlying their production, the author in the next five succeeding chapters describes the different electro-thermic procedures *viz.*, the use of diathermy, the high frequency effluve, diathermic coagulation, electro-desiccation, and the Arc operation. A brief

account is also given of the so-called "Therapentic Fever" and its production by diathermic currents. The chapter on the use of electric currents for testing the reactions of muscle and nerve and the chapter "index of electrical treatment" are also very useful and well written. A series of plates showing the situation of the motor points and the muscles they represent will be very useful. These and other features of the book coupled with the copious explanatory diagrams and illustrations make it a very useful handbook, giving us the "essentials of medical electricity".

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**Idols and Invalids**:—*By James Kemble*, CH.M. F.R.C.S., Published, by Messrs. Methuen & Co., Ltd., 36, Essex Street, W.—C., London. Price 6/-nett.

This book deals with the lives of eminent personages—rulers, statesmen, warriors and authors—who have made history, ancient and modern. The author discusses their virtues and foibles, their likes and dislikes and their physical handicaps and vicissitudes of health. He also discusses the influences these characteristics have upon the events of their lives. The language is fluent and expression, lucid and interesting. The author, though a medical man, has made use of the minimum of medical terminology. The book will therefore appeal to laymen and medical profession alike. We heartily commend the book to our readers.

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**Treatment of Diseases of the Skin**:—*By D. Knowsley Sibley*, M.A., M.D., B. (CHIR.) (CANB.), M.R.C.P., (LOND.), Physician to St. John's Hospital for Diseases of the Skin, London. Edward Arnold & Co., 1933, fourth edition, pp. 223, illustrated. Price 10 *s.* 6 *d.*

This popular book is in its fourth edition and the author has made it uptodate, added a good deal of new matter and omitted old materials. The whole book is devoted to a consideration of the treatment of various skin conditions rather than designed as a text book on Dermatology, and hence may be called a synopsis of modern technique in dermatology. Fresh chapters on the use of ultra violet rays in dermatology have been added which contain the technique of treatment of some conditions like *lupus*, *psoriasis acne*, *ulcer*, and *alopecia*. The value of colloidal preparations of sulphur, manganese, iodine, mercury, bismuth and calcium; preparations of As. Salvarsan, N. A. B., and Gold in the treatment of skin conditions has been discussed.



The book contains various other useful and practical material which will be found very useful by any reader.

But what strikes us most is the chapter on the treatment of leucoderma; the method employed by the writer is so simple that could be even carried out by the patient himself while the effects would seem to be miraculous as revealed by the plates reproduced on pp. 110. The writer gives an illustration of a case of leucoderma treated by his methods which cleared after 3½ months treatment. The author restores the lost pigments in these cases by the use of repeated hyperaemic suction cups. It is most unfortunate that he has dispensed with the description of this method in two lines, and but for the plate xv could be left unnoticed.

Part III contains ample prescriptions used in Dermatology and will be found helpful. It only remains for us to add that the book is well written and produced and is within the reach of every one's pocket.

---

**A Student's Manual of Birth Control**:—By *Lily C. Butler*, M.R.C.S., L.R.C.P., D.P.H., Published by Noel Douglas—28-30, Little Russell Street, London. W. C. I. Price 1/6.

Of late, the subject of Birth Control has become one of absorbing interest not only to the lay public but also to the medical profession. Unfortunately very little instruction is given now-a days to the students in Medical Schools and institutions in this important branch of Medical Science and in after-life, they feel it a great handicap, in not being able to give proper instruction, when approached by the clients for the same. This little book is therefore intended to impart the necessary instruction on Birth Control to 'the overworked medical student and the harassed practitioner, so that they may be posted with requisite and up-to-date knowledge on this subject. We recommend the book to all medical students and general practitioners, who have got to learn something about Birth Control methods.

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**Notes on May & Baker's Medical Specialities**:—This fine brochure, published by Messrs. May & Baker, Ltd., Battersea, London. S.W. 11, is intended to enlighten the Medical Profession on the various specialities which they have introduced-their usage and dosage and will be found a very useful companion and consultant to the General Practitioners, in India, who have to depend upon one or other of these specialities in their daily practice. Valuable infor-

mation is given with regard to weights and volumes, conversion table, percentage solution equivalents, thermometric equivalents and so on and this makes the booklet useful also as a ready reference. A few blank sheets are left at the end for scribbling notes. We hope our readers will provide themselves with a copy each of these valuable notes. Copies can be had free to subscribers of Antiseptic from their Calcutta office No. 3, Mangoe Lane, on application.

**The Care of Infants in India.** Published by *Messrs. Moore & Caldwell, Ltd.*, Cranmer Road, London, S. W. 9.

In view of the increasing attention now being paid to infant and child welfare, in every part of the world, any book which treats about infant welfare will be quite welcome. In this booklet, valuable hints are given to the nurses, ayahs and mothers as to the proper method of upbringing an infant and the best method of feeding it with artificial foods in the absence of breast milk. This booklet deserves to be in the hands of both the medical profession and the lay public and copies can be had also in Tamil, Telugu, Canarese and Urdu. Those interested may apply to Messrs. Wilson & Co., Post Box. No. 2, Madras, enclosing two annas for postage.

## PREPARATIONS & INVENTIONS

**Solganal B. Oleosum:** Messrs. Schering Kahlbaum have introduced into India this latest development in Chrysotherapy which was the subject of a favourable discussion at the International Conference at the Hague in September 1932.

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**Compligon:**—Messrs. Schering Kahlbaum have introduced into India, a new polivalent antigen for the specific treatment of the complications of gonorrhoea, the name of which is *Compligon*. It represents a new and important advance in this field of medicine. Hitherto gonococcal vaccines characterised by their content of killed or living gonococci, were almost exclusively employed. In contradistinction to these, Compligon is not a vaccine but a bacteria-free toxin manufactured by a special process. It contains the metabolic products which are excreted during the life of the gonococci (exotoxins) as well as the body substances liberated when they are killed (endotoxins).



**Cow & Gate Milk Food:**—At the close of the International Paediatric Congress held in London and opened by the Duke of York on July 19th, a number of the delegates accepted the invitation of Messrs. Cow & Gate Ltd. to inspect their processes and methods at their West Country factories.

The party which numbered over 80, and included specialists in Infant's Diseases from fifteen different countries was conveyed by express train specially chartered for the occasion, to Wincanton in Somerset, the nearest of the zone of the Companys factories in the famous pasture lands of the West.

On arrival the delegates were divided into parties aad toured the works under experienced guides, aided by interpreters. Great keenness and interest was displayed throughout by the visitors, particularly as the much discussed question of safe milk supplies for children had been the subject of one of the principal papers at the Congress, and had given rise to a lengthy debate. It was generally agreed that Messrs. Cow & Gate had solved the question not only from the hygienic, but also from a nutritive point of view and American doctors present accustomed to a high standard of milk production in their own country, declared they had never seen such immaculate methods and precision.

The delegates were shown the astounding aggregation of mucus, pus and infective microbic matter extracted at the factories from high grade, strained and apparently "pure milk" before the actual processing took place. Recollecting that raw milk of this description would be freely sold to the public, for infant feeding purposes, the exhibition was fittingly described by the guests as "hair raising."

Some of the special Foods prepared by the Company were also on exhibition, such as Allergilac, for the treatment of allergic conditions in infancy. This Food had been particularly referred to by Dr. Bray and other paediatricians at the Congress in the symposium on Allergy.

At the end of the inspection the delegates sampled the crisp and creamy product which had been processed throughout to completion for their benefit and an adjournment was made for lunch to the White Horse Inn, a famous old Hostelry of hunting renown. At the luncheon the delegates were welcomed by Mr. Bramwell Gates, Managing Director of the company in a short and genial speech. Dr. Greenwald (New York) replied on behalf of the visitors and referred in complimentary terms to the organisation of the Company. His remarks were seconded by Professor Gismondi of Genoa who expressed the warm thanks of

the Italian delegates for the kindness and unremitting hospitality of their hosts.

After lunch the delegates drove by motor coach to Somerton Factory in the vicinity of Glastonbury and enjoyed the delightful drive through the charming Blackmore Vale with its reminiscences of Thomas Hardy and of William Barnes, the Dorsetshire dialect poet.

Somerton was carefully inspected by the visitors, who were rapidly becoming "milk conscious." After a short interval for snap-shotting the party finally entrained for home. Tea and refreshments were served on the train and Waterloo was reached in good time after what was generally agreed to be a most pleasant and interesting day.

Amongst the Cow & Gate personnel accompanying the party were Mr. Branwell Gates (Joint Managing Director), Mr. Tavroges (Chief Chemist), Colonel Biagi, M.C. & Mr. D. C. Milner (of the Italian Agency), Mr. G. E. Gillard (Export Manager), Mr. A. H. Taylor (Overseas), Messrs. Humphrey and Hart (Assistant Sales Managers) R. Hodgson, and others.

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**Adexolin Liquid**:—Manufactured also by Glaxo Laboratories, London. This concentration also contains vitamins A and D in the proportions natural to high grade cod liver oil, but at twenty times the concentration. Its potency is specially designed to secure flexibility in dosage namely to facilitate the administration of the smallest prophylactic or the largest therapeutic dose; and being practically tasteless and inodorous it can be administered without risk of producing nausea. This preparation is valuable not only for all the purposes to which cod liver oil prophylaxis and therapy have been applied, but like the capsules can be used for massive vitamin therapy as well. It is specially recommended for incorporation in the bottle feeds of infants.

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A MONTHLY MEDICAL JOURNAL

*Edited by*

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



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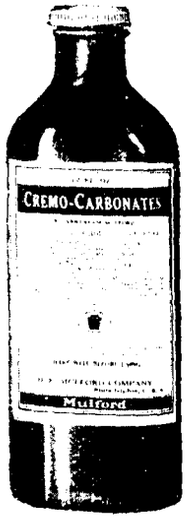


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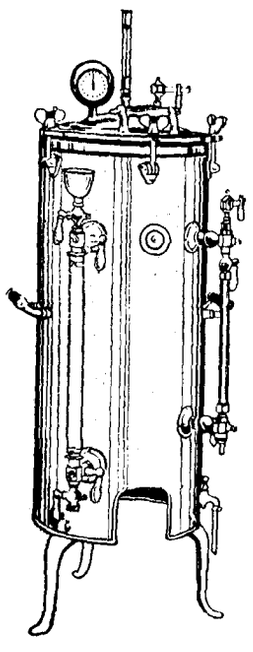

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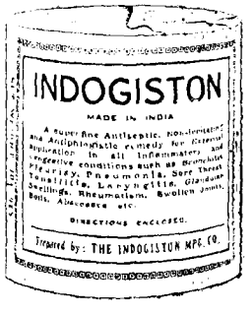


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# An Interesting Snake-Bite News

Reported By Dr. Md. IBRAHIM MIAH, L.M.F., Medical Officer,

*Mohanganj Dispensary, P. O. Allahad, Dt. Rajshahi.*

*In the Indian Medical Journal, Calcutta, July, 1933, Page 396*

"History of the case: A patient named Osimuddin Pramanik, a boatman aged 30, native of Khojipur under P. S. Bagmara-Rajshahi was drawing his "Gahana boat" by "Goon" along the bank of the river Baranai on the night of the 19th May, 1933. At Mahabatpur Ghat he was bitten by a snake on the left leg just above the ankle joint. He tried to come to Mohanganj Bazar which is about a mile and a half from the place where he was bitten but he fell down on the way whence he was brought by his colleagues to the above bazar. His companions brought Ozhas (native physician) from the neighbouring village to get rid of the poison by chanting "mantras" but all these proved of no avail and the patient began to grow worse. Seeing his miserable plight a gentleman of the bazar came running to my quarter, roused me from sleep at about 1 A. M. and informed me of the incident. I at once hurried to the spot with the necessary medicines and found the patient in an apparently **hopeless condition with no radial pulse and no respiration** and coolness all over the body and froth coming out of the mouth and the nostrils. Having failed to apply Lexin which I took with me as directed by Mr. P. Banerji, the inventer.....either by inhalation due to stoppage of respiration or by dropping the same over the tongue when in completely unconscious state.....and finding that the condition of the patient is absolutely hopeless I at once gave him an intravenous injection of 3 c.c. of Lexin and the apparently dead person jumped up within a few minutes of the injection .....his pluse returned... ...respiraton returned and the temperature of the body became gradually normal within about 6 hours.

The point of interest is that Mr. P. Banerji has not given any direction for intravenous injection of the medicine when his methods of application of the same fails in completely hopeless condition of the patient.

I therefore request my professional brethren to given a fair trial whenever any such chance occurs to this wellknown medicine by intravenous route and to circulate the results obtained through the medium of this Journal" for the benefit of the suffering humanity."

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*Please report also to*: MR. P. BANERJI, MIHIJAM, E.I.R.

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## Original Articles

### DIAGNOSIS IN URINARY DISEASES *

BY

V. M. KAIKINI, B.A., M.B., F.R.C.S., (Edin.)

*Surgeon, King Edward Memorial Hospital, Bombay.*

**Plan of Examination—**

(1) Nature of the complaint.
(2) Family history and past history.
(3) The symptoms and their method of onset.
(4) General examination.
(5) Local examination.
(6) Examination of secretions and excretions.
(7) Instrumental and radiographic examination.

1. **Nature of the complaint.**—This should be stated by the patient himself fully.

2. **Family history and past history.**—Hereditary diseases in the family—Bilharzia, lithiasis, hydatids etc. In infancy and childhood one must be on the look out for congenital malformations, vesical calculus and microbic infections. Tuberculosis is rather rare. Pyuria is due to congenital stricture of urethra, persistence of valvular folds in prostatic urethra, vesical calculus, stenosis of ureter and pyonephrosis. As age advances, renal tubercle becomes more common and also gonococcus. In old age, enlarged prostate,

* Specially contributed to the Antiseptic.

vesical calculus and malignant disease and consequences of urethral stricture. History of acute specific fevers is of importance as it may cause nephritis. Oopheritis and orchitis as complications of mumps occur more in adults than in children. Sedentary habits are to be investigated.

3. **The symptoms and their method of onset.**—Sometimes the symptoms described by the patient are *misleading e. g.*, urethral pain and strangury may be due to uterine displacement, haemorrhoids, pelvic appendix, calcified tuberculous glands irritating the nerves of the bladder, or prolapse of the bladder wall, through one of the hernial rings. Again renal pain is sometimes referred to the healthy kidney particularly in tuberculosis and calculus, or it may be referred to some part of the abdominal wall and accompanied by certain acute intestinal symptoms. The chief symptoms described by the patient are, pain, swelling, a urethral discharge and disturbance of micturition and changes in the appearance of urine.

*Pain*—Pain may be local or referred. When local and stationary, it is always indicative of some pathological change. When referred, it generally requires careful and special investigation to make sure that it originates in the genito-urinary tract.

*Urethral pain*—During micturition, it is due to inflammation *e.g.*, gonococcal (if urethritis is recent) or abnormal composition of urine as in beer drinking. Gouty urethritis may cause pain but has no discharge. Pain before micturition is due to obstruction from stricture, a stone, a foreign body or a growth. Referred pain along the urethra occurs both during and at the end of micturition in cystitis and is described as scalding. Pain at the tip of the penis is caused by irritation of the vesical neck and sometimes by a stone impacted in the lower end of the ureter, but it may be due to inflammatory and other changes in the posterior urethra, prostatic calculi and malignant disease.

*Perineal pain* if not of anal and rectal origin is strongly suggestive of an inflammatory or other lesion of either the prostate, the posterior urethra, the seminal vesicles or the base of the bladder.

*Groin pain* is due to inflammation of the cord or testes, but is sometimes felt in carcinoma of the prostate, prostatitis or spermatocystitis.

*Suprapubic pain* is seldom a pronounced symptom in urinary diseases, but is sometimes present in the carcinoma of the prostate in chronic cystitis with distension and when the upper part of the bladder is the seat of an inflamed diverticulum. It may be referred from a distance *e. g.*, it may be the sole symptom of a gall bladder packed with stones.



*Renal and ureteric pain* are characteristic when local and associated with symptoms peculiar to the conditions from which they arise, but when referred they may be very misleading.

*Renal pain* is generally located to a triangular area having its base along the erected spinæ between the last rib and the crest of the ileum and its apex at the lower border of the ribs anteriorly. From this area the pain may be referred along the course of the ureter to the inguinal region, labium majora, testes, anterior part of the thigh, leg, heel etc. Occasionally it is referred to the opposite healthy kidney, the diseased one being painless. Tenderness in the angle between the last rib and the erector spinæ is typically renal.

*Ureteric pain* is felt either along the line of the ureter or is referred to the groin or testes or labium. When the lower end of the ureter is implicated the pain may be felt at the base of the bladder,along the urethra at the external meatus or in the perineum. Renal and ureteric colics are generally accompanied by muscular rigidity, vomiting and abnormal intestinal movements, and may simulate acute appendicitis or intestinal obstruction. But a patient with colics rolls about in agony while a patient with acute abdomen keeps still.

Another diagnostic point of great value is Rovsing's sign. It is elicited by firm massage of the descending colon with the flat of the hand. If this causes pain in the right iliac fossa, it signifies localised peritonitis usually due to acute appendicitis. If however the massage does not cause pain in the right iliac fossa, the lesion is probably renal or ureteric, but may be intraperitoneal. A renal or ureteric affection may be confirmed by tenderness on pressure in the angle between the last rib and the erector spinæ.

*Pain at the end of micturition* when accompanied by an urgent desire to micturate is typical of cystitis and trigonitis. A pricking pain referred to the external meatus suggests a vesical calculus or foreign body especially if it is aggravated by movements or change of position. Severe shooting pain in the bladder and urethra may be due to organic disease of the spine and central nervous disease. Renal pain relieved by recumbency and either relieved or increased by change of position points to a mobile kidney, a renal tumour intermittent hydronephrosis and horseshoe kidney.

Tumours of the bladder don't cause pain unless in the later stages due to cystitis. Pain in the neighbourhood of the bladder at the end of micturition indicates disease of the bladder or its vicinity. In tuberculosis and stone, pain occurs at the end of micturition, remains a long time after the completion of the act and may radiate into the urethra.

When the inflammatory area is adjacent to the bladder as in perimetritis or appendicitis where bladder is directly involved in the abscess wall, the pain begins at the beginning of micturition and remains more limited to the neighbourhood of the bladder.

*Disturbances of micturition* :—Patient should be asked about abnormal frequency, urgency, excessive or diminished secretion and painful or difficult micturition. Alterations in the urinary stream and loss of power occur in obstruction at the neck of the bladder and in the urethra, and in diseases of the nervous system. When sudden it is generally due to an impacted stone or portion of growth, when gradual or progressive to enlarged prostate, stricture or tabes.

A sudden onset of obstruction accompanied by pain and passage of blood suggests foreign body or stone in the urethra. If the obstruction comes suddenly at the neck of the bladder and if it remains unchanged for a day or more we must think of enlarged prostate. History of mild obstruction previously is present.

Subacute onset—If the process develops in a few days without warning due to rapidly growing swelling pressing on the urethra from without it suggests abscess of the prostate or vesiculæ seminalis or periproctal suppuration or in females strangulated genital tumour or effusion under high pressure.

Gradual onset indicates stricture, new growth, stone in the urethral diverticulum, enlarged prostate, pelvic tumour and chronic abscess.

*Frequency of micturition* in general may be due to habit, to changes in temperature, nervousness, polyuria of diabetes, chronic nephritis and diuretics such as tea, coffee, alcohol etc., irritating condition of urine produced by blood, by the sudden discharge of pus from an infected kidney or perivesical abscess, to diminished capacity of the bladder, to stone, new growth and foreign body, in which cystitis is the usual cause of frequency, also enlarged prostate and displacement of uterus.

Reflexly the frequency may be due to anal or vulval sources of irritation. Though frequency often occurs in nervous diseases



it is seldom pronounced in tabes, the disease in which the bladder is most affected. There may be slight initial frequency and urgency but generally there is progressive loss of power with diminished desire to micturate ending in sudden complete retention or incontinence from overflow.

Frequency may be diurnal, nocturnal or both. Diurnal frequency occurs in nervousness and sexual neurasthænia, in vesical calculus, and in mild inflammation of the bladder, prostate and urethra. Nocturnal frequency is pronounced in enlarged prostate, renal tuberculosis and severe cystitis and prostatitis. Frequency by day and night is due to acute inflammation of the lower urinary tract, to reflex irritation such as worms and to organic polyuria. The frequency of enlarged prostate is characteristic. Though present during day it is not sufficient to attract attention. At night the patient sleeps for several hours and then wakes to urinate at more or less frequent intervals till he rises in the morning. Frequency and urgency indicate irritation of the posterior urethra and vesical neck.

*Dysuria* is symptomatic of obstruction or atony. The commonest obstructive causes are, stricture, diseases of the prostate, impacted calculi, and congenital malformations. A patient with stricture strains throughout micturition, with a vesical calculus and enlarged prostate at the beginning.

*Abnormal constituents of urine* :—Abnormal constituents of urine are pus, blood and crystals.

Naked eye should not be used for examination of pus as carbonates and phosphates may give the appearance. These latter disappear by adding of few drops of acid. If the urine is slightly cloudy but forms no deposit even after long standing not clearing up after the addition of an acid, it means that the specimen is not fresh but contains bacteria. Bacilluria due to typhoid or coli may cause this.

For pus, a naked eye examination must be first made if gonorrheal threads or small flakes float about it, the urethra must be washed out and urine examined in three flasks. If the pus comes from the anterior urethra or from posterior urethra as well leaving the bladder free the case is gonorrhœa. If both bladder and urethra discharge pus it is cystitis due to gonorrhoea. If all the pus comes from bladder, inquire if there is a sediment in the urine or whether the cloudiness in the specimen is a first appearance or if the cloudy specimens have been passed on previous occasions. If the urine is uniformly purulent, if the pus contents are not subject to any

changes, the lesion may be in the bladder although the pus may come from the pelvis of the kidney.

A simple evacuation of purulent urine or pure pus indicates either pyonephrosis or perivesical abscess (from prostate etc.). In the aged sudden apyrexial cystitis with its accompanying pyuria is very suggestive of vesical carcinoma.

*Chemical examination*:—Diminution of acidity or amphoteric reaction has no significance as long as the urine is odourless and if cloudiness disappears on addition of acid. Diminution of acidity in pus-containing urine or alkalinity indicates secondary infection by staphylococcus or proteus vulgaris etc. The smell is ammoniacal. If pus containing urine is acid but is not offensive the condition is tubercular or streptococcal. If it is acid and offensive B. Coli is responsible.

*Haematuria*:—Pigmentation due to haemoglobinuria, and excessive indulgence in sweets stained with eosin should be excluded; also bilharzia hoemophilia, purpura, scurvy, chronic nephritis, arteriosclerosis, food or fruit causing oxaluria and medicines containing hexamine.

Cessation of an attack of haematuria is no proof that the cause has been successfully dealt with. Malignant disease of the urinary organs has been characterized by intermittent painless haematuria.

When blood is intimately mixed with urine it is probable that the source of the haemorrhage is the kidney. When the blood stained urine is dark in colour, the evidence is still more strongly in favour of a renal origin. Yet in some cases the tests are misleading. All we can say with certainty is that blood has been shed in small or, moderate quantity allowing intimate mixture with the urine before clotting has had time to take place. The cystoscope in a renal case may show a red efflux, the smoky or dark colour of the boiled specimen being due to the change of oxyhaemoglobin into methaemoglobin by admixture with the acid urine.

Blood from the bladder is generally bright and on standing forms a red precipitate at the bottam of the glass.

Haemorrhage at the commencement of the micturition is from that portion of the canal in front of the compressor urethrae, terminal haemorrhage may come from the posterior urethra, the verumontanum, the prostate, the seminal vesicles or from a papilloma of the internal meatus.

Painless haematuria of sudden onset in a young subject may be due to rupture of a renal arteriole, in an older subject, to arteriosclerosis or Bright's disease. In some cases of chronic interstitial nephritis, haematuria is the initial symptom and may be so profuse as to endanger life. Painless intermittent haematuria is characteristic of papilloma of bladder. Constant slight haemorrhage is very suggestive of vesical carcinoma.



Haemorrhage due to oxalates and uric acid is sudden in onset and is usually accompanied by renal pain but sometimes only by slight irritation of the bladder. The association of sudden haematuria with lumbar pain generally signifies a renal origin, but this is not always the case, for, ureteric calculus or a papilloma at the vesical orifice of the ureter can cause identical symptoms.

Profuse renal haemorrhage without previous symptoms of stone occur in papilloma of the renal pelvis, angeioma of a papilla, surgical tuberculosis in which it is sometimes the first symptom, malignant growths and aneurysm of the renal artery. Massive clotting suggests bleeding from the bladder or prostate, but primary or secondary hæmorrhage from the kidney may be so profuse as to fill the bladder with blood which rapidly clots. The same may be seen in rupture of the kidney or malignant disease of the kidney.

Frequency of micturition suggests that the site of hæmaturia is the bladder or prostate. If frequency and hæmaturia are combined with pain in the glans penis, scalding and urgency and if in addition pus and mucus are present, cystitis may be suspected, but positive diagnosis must not be made until malignant growth, tubercle and calculus have been excluded by direct observation.

Renal hæmaturia of undetermined origin—also called essential renal hæmaturia. In this case the hæmaturia is severe, persistent and seen to issue from one ureter but no pathological changes are found and has been attributed to vasomotor or sensory nerve changes.

If there is pus in the intervals between the haemorrhages it is most probably tuberculosis of bladder or kidney.

Crystals of calcium oxalate and uric acid when unaccompanied by haematuria will cause only irritation and uric acid will give a definite colour. In some cases of phosphaturia the urine is cloudy only after meals. Persistent haziness is generally due to colon baccilluria. Occasional haziness combined with frequency in a young adult is suggestive of renal tuberculosis.

**General and Local examination.**—Special attention should be paid to complexion, mental attitude, signs of washing and dehydration. Tongue should be examined and the mouth for septic foci. Patient should be questioned for appetite and desire for fluid. Blood

pressure and condition of arteries should be noted. Knee jerk and pupil reflexes should never be omitted. The chief clinical symptoms of defective renal function are, thirst, disinclination for food particularly meat, a dry tongue, a sallow complexion. Next the hernial region, the heart and lungs must be examined.

Local examination of the bladder and inguinal region must be made. A malignant renal growth sometimes gives rise to a varicocele which differs from the common variety in not disappearing with recumbency. Urethral discharge if present must be examined.

Idiopathic hydroceles are large and secondary hydroceles are small. Special attention should be paid to epididymis as regards nodulations etc. Thickening of globus major alone may be due to an encysted hydrocele of the epididymis (spermotocele) or to tubercle of haemic origin. Enlargement of globus minor is usually tuberculous or infective. When tuberculous it is secondary to tuberculosis in seminal vesicles, prostate which in turn may be secondary to renal tuberculosis. When infective it is due to urethritis, prostatitis or vesiculitis. Normally vesiculæ seminalis cannot be felt but are felt when inflamed.

Normal prosate is felt as a slight smooth moderatley moveable prominence covered by freely moveable mucous membrane separated into two lateral lobes separated by a shallow vertical sulcus.

Chronically inflamed prostate is firm, only slightly moveable and has some tough nodular inflammatory deposits on one or both lateral lobes.

Malignant prostate is seldom much enlarged and is sometimes quite small, stony hard, irregularly nodular and firmly fixed. Median sulens is absent and the sulcus at the edge of the lateral lobe is replaced by a firm flat band apparently joining the prostate to the pelvis. This band is composed of lymphatics and cellular tissue infiltrated with carcinoma cells.

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# SYSTEMIC DISEASES DUE TO FOCAL INFECTION FROM THE TONSILS*

BY

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FOCAL infection from the Tonsils leads to diseases of varied nature in the body. Sometimes apparently there seems to be no anatomical connection between the tonsils and the site of manifestation of the symptoms. If on examination the tonsils are found to be anything but normal, the physician should suspect the tonsils to be the chief culprits and inaugurate a thorough investigation to verify the suspicion.

One of the methods of investigation by which it is generally observed whether a particular systemic disease is due to focal infection from the tonsils, is that cultures are made from the organisms in the tonsils and from the site of the remote affection *e.g.* from the rheumatic joint. The organisms thus grown are injected into the rabbits and it is found that the organisms have a selective affinity for the particular organs and lead to the development of the same disease.

1. Among the diseases of Gastro intestinal system, dyspepsia, duodenal ulcer and appendicitis are the commonest that are met with due to focal infection from the tonsils. In 1924, Dr Johnson recorded an interesting case of duodenal ulcer that had lingered on without relief under all medical treatment for 2 years; after the removal of the diseased tonsils, within a few weeks, the whole trouble completely disappeared.

The relationship between tonsillitis and appendicitis is peculiar. Inflammation of the one often preceeds or follows the inflammation of the other. Tonsils and the vermiform appendix both are composed of lymphadenoid tissue. The pathogenic microorganism finding suitable soil for their growth in the one, when they reach the other are liable to catch their hold upon it. The method by which transmission occurs is not quite clear. The bacteria may be carried by the lymphatics, or the blood stream, or they may even be carried via the alimentary canal. This last mentioned method of transmission was admirably demonstrated by Chestnut's experiments. Rabbits were fed with pathogenic bacteria from the tonsils and

*Specially contributed to the Antiseptic.

they gave rise to appedicitis. It has been observed that appendicitis due to infection from the tonsils is always of a severe nature and leads to the gangrenous condition earlier. Bellingir of Chicago only recently reported two cases in children of 5 years of age, in whom acute attacks of appendicitis followed the operation of tonsillectomy. Only on the second night following the day of operation, appendicectomy had to be carried out. One case died and the other survived.

2. **Infectious diseases:** — Presence of enlarged tonsils and adenoids predispose to attacks of infectious diseases particularly that of scarlet fever and diphtheria. It has been definitely observed that the attacks of the latter are less severe in cases where the tonsils have already been removed. A certain number of people with enlarged tonsils may carry Klebs Loeffler's bacilli months after recovery from diphtheria. In such cases nothing short of tonsillectomy can prevent the danger of spreading infections.

3. **Cervical adenitis.** – Enlargement of the cervical glands is a very common sequalae of the infection from tonsils. In case, what are called the tonsillar glands below the angles of jaw, are enlarged it is pretty certain that the tonsils are diseased. How often are some of the practitioners misled to label a case of simple cervical adenitis as of tuberculous nature. All other causes of enlargements of the glands in neck. *e.g.* infection from the scalp, pediculi capitis, suppurative otitis media, teeth and particularly the tonsils must be thoroughly investigated. I have often followed cases of cervical adenitis in private as well as hospital practice, where the glands became quite impalpable after removal of the septic tonsils. In most cases, at least, the further enlargement of such glands altogether stopped. At the same time it cannot be denied that, in view of the fact, that enlarged glands definitely lower the resisting power of the patient, tubercular bacilli travel through the same channel *i.e.* the tonsils and their related lymphatic vessels, and become lodged in, in the cervical glands. An operation on the enlarged glands of the neck must always be preceded by removal of the tonsils if found infected.

4. **Goitre.**—It has been observed that the physiology of thyroid as well as of other ductless glands in the body, is profoundly affected by toxic disturbances. Dr. George Wood of Philadelphia related the case of a nurse who suffered from recurrent attacks of tonsillitis. She developed exophthalmic goitre and symptoms of hyperthyroidism. Removal of the tonsils made the goitre disappear and the other symptoms improve. Six months later it was discovered that the upper pole of one of the tonsils was accidentally left behind. Removal of this piece also made every symptom completely and entirely disappear.



5. **Rheumatism.** Tonsils are the main channels of infection in rheumatic fever. Some regard tonsillitis in itself a manifestation of rheumatism. Streptococcus hæmolyticies and non-hæmolyticies are the causative organisms. If tonsillectomy does not improve the condition of chronic rheumatoid arthritis, it is quite possible that there is another latent focus of infection in the body elsewhere. If the tonsils are diseased there, removal is absolutely indicated. The cases of arthritis in which bony changes occur are least benifitted by this operations. Although the percentage of diseased tonsils in cases of rheumatism is as high as 66%, there is no justification for tonsillectomy unless the tonsils are found to be definitely diseased.

6. **Respiratory system.** —Among the respiratory diseases chronic bronchitis is the commonest of all that is met with due to infection from the tonsils. It should be at the same time noted that chronic bronchitis and even tuberculosis of the lungs may also be caused by the fact that enlarged tonsils and adenoids lead to inhibition of the nasal breathing. My observations are that tonsillitis and bronchitis are often associated. Treatment directed to the lungs improves the condition in some and does no good in others. It is advisable to let the condition of bronchitis improve as much as possible under medical treatment before the operation of tonsillectomy is undertaken. In many cases where I have had the chance of following, the attacks of bronchitis have been decidedly less common after this operation. Observations of some of the surgeons in western countries, however, have been different. In their opinion, the respiratory diseases are not only not benefitted, but they actually occur more in operated cases, may be, that climatic conditions have much to do in such cases.

7. **Cardiovascular diseases:** Among the cardiac diseases valvular diseases of the heart are frequently met with due to focal infection from the tonsils. Valvular diseases of rheumatic or of septic origin, are likely to improve by removal of the diseased tonsils. In the opinion of several observers, however, valvular diseases, when once established do not improve by tonsillectomy. The right moment for this operation therefore is when the cardiac valves have yet not been involved *i.e.* the operation can be of only prophylactic interest. Kaiser has published interesting statistics. There were 20,000 children in whom the operation of tonsillectomy was performed, and

28,000 control cases in whom this operation was not performed. On examination, 450 among the operated and 817 among the non-operated cases, were found to have valvular diseases of the heart. The latter if worked out become 583 among 20,000 a difference of only 133 cases. That is to say, to save 133 hearts, 20,000 children were victimised. Is it not thinkable that complications following 20,000 operations of tonsillectomies, would probably far exceed the number of hearts saved?

It would be interesting to state my observations with regard to cardiac diseases. It is routine in Sir Ganga Ram Free Hospital Lahore to examine the heart of every case that has got to be subjected to chloroform anaesthesia. So also the heart of every case in whom the operation of tonsillectomy was to be performed, was examined. We noticed that it was rarely, that we came across a case that had endocardial lesion. Although we did not collect any statistics, there is no denying the fact that valvular diseases of the heart are far less common in our country than we read about regarding the Western countries. Is it not due to the fact, that the use of alcohol, is extremely common, in those countries, much more so than what we find in India?

One thing, however, is certain. The pulse rate in Indians, on an average, is markedly much more than the usual average of 72 per minute. I once started taking in the out-patient department, the pulse and temperature of every case, whose ailment could possibly have no effect on their pulse rate. Similarly I have observed in the cases that I have off and on, examined for Life Insurance. My observations are that, on an average, the pulse rate in Indians is higher and the temperature lower than the average stated in literature. Is it due to toxic conditions of the heart? If so we shall have to take it that in our country, the heart does not get affected to the extent where the valvular lesions should come about. There is not the least doubt, that chances for the tonsils to be infected and then linger on that state, in our patients, are much more than in the Westerners.

8. **Urinary System.**—Among the diseases of urinary system nephritis is much common due to focal infection from the tonsils. In cases of acute nephritis, when the inflammatory conditions of the kidneys have subsided, removal of tonsils should be carried out, if all other sources of infection have been eliminated. This certainly safeguards permanent damage to the kidneys. In all cases of acute tonsillitis, urine should be examined as a routine measure to enable the physician to be forewarned in time.



9. **Nervous System.**—Among the diseases of nervous system chorea, certain cases of epilepsy, functional sychosis and even mental aberration have often been found to have their origin from the septic tonsils. Neurasthenia, mental depression, nervous breakdown, too, follow in cases of clear infection of the tonsils. At present there is a case under my observation in whom the above mentioned symptoms are in my opinion entirely due to septic tonsils.

Meningitis has also sometimes been traced to septic tonsils. The route of infection in such cases is direct from the tonsils to the basal meninges through the roof of the pharynx.

10. **Skin diseases.**—Some of the skin diseases particularly of chronic nature *e.g.*, lupus, alopecia, urticaria, prurigo, lichen planus have sometimes marvellously improved after removal of the septic tonsils.

11. **Eye diseases.**—Among the eye diseases recurrent attacks of iritis, karatitis, and uveitis may be due to focal infection from the tonsils, particularly if syphilis and tuberculosis which are the most common causes of these diseases have been excluded. Phylactenular conjunctivitis, whose etiology is yet doubtful may be due to septic tonsils. We followed several cases in Sir Ganga Ram Free Hospital, Lahore. The attacks of this disease ceased after removal of the septic tonsils. Since in eye operation sepsis, however mild in nature it may be, always makes the prognosis grave. In all well reputed eye clinics, operations on eyes are regarded as dangerous so long as sepsis in the tonsils keeps on lurking in the system. 3 Ts—teeth, tonsils and toxaemia must always be looked into to ensure the safe termination of an eye operation.

12. **Aural diseases.**—Among the aural diseases chronic suppurative otitis media and chronic adhesive catarrh are on account of the close proximity of eustachian tube to the tonsils, almost always caused by the septic tonsils. My experience is that the presence of diseased tonsils in the throat always retards the cure of suppurative otitis media. The removal of diseased tonsils leads to speedy recovery and must always be advised as a part of the treatment of suppurative otitis media. In case the operation cannot be carried out for certain reasons, local applications in the throat should be resorted to. Where all persistent efforts in the antiseptic dressings of the running ear prove fruitless, nothing short of the operative removal of septic tonsils will do any good.

**Conclusions.**—From the foregoing it would be clear what great havoc is wrought by the infected tonsils in the body. It,

however, must be well borne in mind that tonsils must be infected before they can be accused of being the chief culprits. Of course, the surgeon's attention must be fully concentrated on finding out whether the tonsil is healthy or diseased. If found diseased they must be removed. They are of no use to the body if they are unhealthy. They are on the other hand a source of danger. In the present state of our knowledge, it must be clearly understood, that whatever function the tonsils may have been designed to perform is performed by them only in the first few years of life. After that they are only a useless entity, a vestigeal remains, and a potential source of danger: and therefore must be removed even as a prophylactic. We are to save the child from further troubles, in case they do not retrogress by themselves as they normally ought to do.

Dr. George Wood, in an interesting discussion on the indications of tonsillectomy emphasised the advisability of legislature to make it compulsory that the tonsils and adenoids of every child, before he is allowed admission into a school, should be removed, in view of fact that may are at that age functionless organs, just a vestigeal remains like the appendix.

Let me however, say a word of warning. Over enthusiasm in the matter of removal of the tonsils have led the modernist to go to an extreme limit in the western countries. In Boston clinic there is stated to be so much rush of patients for tonsillectomy that the persons registered in November cannot be promised to get their turn even in the following September. Such a state of affairs has drawn the attention of some of the thinkers to look upon this mass victimization of the children with a sense of horror and amazement. A quotation from Wall's paper admirably suits the occasion.

"Whether a fundamentalist, a modernist or an evolutionist believing in the theory of vestigeal remains, he should not look upon the presence of tonsils as an offence against the dictates of modern society; but rather upon their removel as an offence against nature. It is not an uncommon experience for us to observe that the body retaliates for this insult in the destruction of its tissue by a process of replacement of tonsil like lymphoid structure about the faucial pillars and lower pharynx in an effort to restore that which has been ruthlessly taken away from her."

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# PHIMOSIS IN THE YOUNG AND THE OLD*

BY

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A TIGHT and an elongated foreskin of the penis, which cannot be drawn backwards is a phenomenon of almost everyday occurrence and universally met with, especially in children. A note on such a common subject is likely to be regarded as superfluous. My apology for writing it lies in the fact that it is the commonplace that teaches most and requires to be understood most.

Phimosis is met with in all communities except the Hebrews and the Mahomedans who as a rule practise circumcision in early childhood, as a religious obligation. The obligation may have been forced on the communities by religion or custom as the case may be but it is certainly a good and a commendable practice. Amongst those who do not observe it, it is a source of many a trouble, not only to infants or grown up children but even to the adult and the aged.

About three months ago, I had under my treatment an old man aged over 65 years. He was admitted in the Jubilee Hospital for difficulty in passing urine. On examination he was found to have got phimosis, almost impermeable. The margins of the foreskin had so completely closed on the glans that a fine lachrymal probe could not be got in without difficulty. There was also some purulent discharge visible at the minute orifice, which was not the meatus. Usually all the cases of phimosis I leave to my young assistants to operate, but this particular case I asked them to leave to me, because I expected to show them something interesting in it. I told them that I expected to find a malignant growth—a pappillary wart, if not an "epithelioma" beneath the skin; or we may find a small stone. In the former case, I said we may have to do a more radical operation than mere circumcision. Next day the patient was prepared for operation. Under local anæsthesia, I made an incision from the minute hole upwards on the dorsum up to the corona of the glans. Excepting a small area the skin was found to be completely adherent to the glans. It was separated as far as possible with blunt dissection. On the

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ventral or rather the under surface of the penis, near the frænum and on the right side I noticed a hard lump, papillomatous, whitish in colour and bleeding readily. It was as big as a tamarind seed. It had already started infiltration and invaded to a certain extent the corpus spongiosum. The growth had thus already taken a malignant turn. After excising it completely together with all the suspicious tissue the wound was closed. Obviously the unfortunate man had to forego a lot of penile tissue. He will have to content himself with a deformed organ for the rest of his life unless a recurrence sends him back to the hospital. Everything went on alright for about three weeks or so. The wound was healing well. When one day I noticed a hard and granulating mass in the old site of the growth as well as on the opposite side. I decided at once to treat him with Radium and placed a couple of needles on each of the suspected sites. In about a week's time the growths disappeared and the wounds healed well. He was discharged "cured" as far as his present condition went.

It is this case and another following it soon after that have prompted me to write the following few observations on Phimosis in general.

The condition is met with both in the young and the old. It is frequently found in infants where it is congenital. If it is not corrected early it is liable to cause complications, chiefly adhesions and inflammation on account of irritation produced by the accumulated secretion underneath. The child goes on continuously rubbing the organ to allay the most annoying itching. It may also produce balanites, stricture of the urethra, and even atresia of the meatus may follow, leading to a urinary fistula. It may cause retention of urine also. Scabies is another common cause of phimosis in children. Like the back of the hand, the spaces between the fingers, and the nates, the prepuce is a favourite site of scabies. The irritation or itching caused by scabies is something uncontrollable. The third cause of phimosis is the formation of a calculus in the bladder. The agonies at micturition in a child with a stone in the bladder are simply terrible. The violent rubbing of the penis often leads to phimosis, stricture of the urethra and prolapse of the rectum. In adults phimosis is chiefly caused by gonorrhoea. In its acute stage the disease causes balanites and there is always some itching with it. In old subjects, a stone in the bladder, stricture in the penile portion of the urethra, enlarged prostate, and want of cleanliness cause constant irritation of the



glans. It is followed by chronic ulceration leading to warty growths, papilloma and epithelioma. Finally the troubles end in the complete destruction of the organ and death within a few months.

Before concluding I do not think it would be out of place to briefly summarise the course and causes of epithelioma of penis as described by Ewing, the greatest living authority on the subject of Neo-plastic diseases.

"Epithelioma of the penis forms from 1 to 3% of all cancers in males and occurs most frequently in the 5th, 6th and 7th, decades of life. Examples of cases of early age are occassionally met with. The disease arises chiefly on the glans from the dorsal aspect near the corona." (In the case described above it was on the ventral aspect of the glans and on the right of the froenum) "……contributing factors are chiefly phimosis and syphilis. Demarquay and Barnay noted phimosis in 80 to 85% of their cases with warty vegetations. Hebrews are practically free from the disease. (So are the Mussalmans. G. R. T.)" Syphilitic scars and venereal warts are not infrequently the starting points of epithelioma. Implantation by contact with a cancerous cervix may be a possible source of penile carcinoma. "……" The initial lesion is usually regarded as a simple wart or eroded pustule, more dense and pearly as a definite ulcer. Many cases are not recognised until an irritating purulent discharge calls for the relief of phimosis and discloses an established lesion. The established disease regularly takes the form of a papillary epithelioma. Papillary tumours of the glans are nearly always malignant. Local extensions of the disease occur last but eventually the glans and even the whole penis may be destroyed. Lymphatic extension commonly occurs through the superficial vessels to the inguinal nodes, mostly on both sides.

"The course of penile carcinoma is relatively slow. Most cases run from one to three years reaching a critical condition. The gross mortality is 32%. While 15 % develop visceral metastasis, the others succumb to local and pelvic lesions and of all types of cases 38% are cured. Recurrences are usually observed in the first year."

Just after I had discharged the case reported above, another was admitted in the hospital. This was an old brahmin with the whole glans eroded. The organ was amputated. So far the man has no recurrence. He is discharged cured as far as the hospital meaning of the word goes.

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# ON THE PREPARATION AND USE OF MORRISON'S PASTE *

BY

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"**Morrison's Paste**", it will be remembered, is a mixture of *anhydrous* magnesium sulphate with glycerine that finds its chief application in the treatment of **Carbuncles**.

The object of this article is an humble attempt at clearing certain misconceptions prevailing about the preparation of the "paste" which the writer has had experience of, necessarily to the detriment of the poor sufferers for whom the preparation is prescribed. The "paste" is, indeed, a very useful preparation if rightly made, while its sphere of action would seem to extend well beyond its employment in **Carbuncle**, the class of cases where it finds its usual application.

**Preparation.**—Chemically pure magnesium sulphate has the formula $MgSO_4, 7H_2O$. Each molecule of the salt is, thus, made up with *seven* molecules of "water of crystallisation." The one object in preparing the salt for the "paste" is to drive off *all the seven* molecules of the "water of crystallisation" to make the "paste" effective; and this is a step in the process which, in the writer's experience, is but perfunctorily gone through, with the result that the "paste" falls far short of our expectations and the "case" tends to drag on its weary length.

Even at a temperature of 150°C a molecule of the salt parts with only *six* molecules of its "water of crystallisation," retaining, even then, one molecule—$MgSO_4, H_2O$—and it is not until the temperature is raised to 200°C that the final molecule of the "water" is got rid of and *anhydrous* magnesium sulphate obtained. The temperature thus required to render the salt *completely anhydrous* is something fairly considerable, and the process of dehydration can never be expected to occur satisfactorily over a spirit lamp a candle or a kerosine oil flame, as I have often seen it attempted.

"When heated, it fuses in its water of crystallisation, which is given off below 150°, leaving the salt **SO**$_2$ Mgo": this in turn, when heated above 200°, parts with the elements of water, and is converted into the anhydrous sulphate **SO**$_2$ MgO", which

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fuses at a red heat without decomposition." (*Frankland and Japp, Inorganic Chemistry*). These words are well worth remembering in the preparation of the salt for **Morrison's Paste.**

As from the above observations it is clear that the *anhydrous* salt requires for its preparation a strong heat (200°C), which is not always obtainable at call, and, further, the fact that the anhydrous salt "keeps" sometime if kept under reasonably dry conditions, my practice is to prepare a fair quantity of this at a time and keep the same in a tight-fitting-corked bottle, which, again, is stowed away in a dry, lighted place.

**The Anhydration.**—Take a clean iron (all iron, not enamelled iron) pot of suitable size, put it upside down over a strong coal fire, and raise the pot to a red heat. This burns up anything that might still have adhered to the bottom and sides of the pot, if that something were *combustible*. Then take the pot out of the fire, and still holding it upside down with a pair of suitable tongs, gently beat its bottom and sides with something made of iron, to dislodge any *incombustible* particles that might, after this, have been left behind. Thus cleaned, the pot is next placed over the fire, this time in the upright position. In a little time it glows red again.

To facilitate the process, I powder the salt to be dehydrated in a clean mortar. Directly this powder is put into the glowing pot still on the fire, fusion is seen to take place and the powder simmers in its own water of crystallisation. Depending upon the intensity of the fire this simmering continues for some time—longer when the fire is not very strong and *vice versa*. Sit patiently by the fire watching the contents until the simmering ceases, when the contents will present the appearance of a milk-white incrustation at the sides and bottom of the pot. Watch patiently on and wait for ten minutes longer. By this time the least trace of simmering will have completely ceased for some minutes past, and the incrustation will show no signs of freshly developing spots of moisture anywhere upon its surface. Now remove the pot from the fire. The incrustation in the pot is the *anhydrous magnesium sulphate*. This will be found to have coalesced into a *cake* and requires to be broken up into fragments, which, in their turn, are ground up into a *fine powder* in the mortar and bottled as mentioned before. Unless powdered *fine*, the gritty particles will irritate the area of application.

**The preparation of the Paste.**—It is customary to speak of so many parts of the anhydrous salt to be made up into the "paste"

with so many parts of glycerine. This direction is not always practicable to be followed at the bed side unless one is provided with scales and weights. A practical and, withal, easy plan is to take the desired quantity of the finely powdered anhydrous salt in a small porcelain tea cup or coffee cup or an enamelled iron pot of convenient size and put on to the powder a few drops of glycerine. Mix well with the handle end of a clean spoon till the paste becomes *almost solid* in consistency. It is very important to ensure the proper degree of consistency. This should be such that a portion dropped upon a hard, plain surface (such as the bottom of an inverted porcelain cup) will spread *ever so little*, and, yet, not so solid as not to do even this little. The paste is now ready for use.

**Modus operandi of the paste.**—As each component of the "paste" is out to abstract fluid from the living surface to which it is applied —$MgSO_4$ by virtue of its previous dehydration, and glycerine being a powerful hygroscopic substance—it stands to reason that their concerted action will but intensify that which each is expected to exert separately, and this the "paste" indeed accomplishes. Each molecule of the dehydrated salt tries to regain, if possible, all the *seven* molecules of the water of crystallisation of which it has been rudely deprived, while the glycerine tends to dilute itself, if possible, down to the level of the tension of the body fluids. The resultant of the action of these two factors, thus, is the abstraction of a reasonably copious quantity of fluid (physiological—blood, serum, etc., and pathological—pus, etc.) from the deeply infiltrated (brawny) area to which the "paste" is applied and, also, the disintegration of the sloughs which give **Carbuncle** its dread notoriety.

**Cases to which the paste is applicable.**—

1. **Carbuncle.**—forms by far the commonest sphere of its applicability. Put in enough of the "paste" on the rough (not woolly) surface of a lint of requisite dismensions and cover up the most prominent part of the Carbuncle, and a little of the area around, with this. The paste is applied both when the carbuncle is young and has not yet attained the cribriform appearance, and also after it has done this. It is also applicable when the skin over the most prominent part has given way and the wash leathery slough shows. Needless to say, the "paste" exerts its action very manifestly in the latter two classes of cases, where the barrier of epidermis or the skin having already been removed by nature, the tops of the narrow shafts communicating with the underlying



infiltrated tissues, or the sloughs themselves, are left exposed for its free play. Place enough absorbent cotton wool over and around the lint and apply a bandage. Immediately following the application there arises a sensation of heat and smarting, which, however, passes off in a few minutes (2 to 5) and the patient begins to feel grateful for the application. This dressing, if circumstances permit, should be changed *every six hours*. At the next dressing the area of the skin covered by the lint will be found smeared over with a mixture of pus and blood——bearing some resemblance to anchovy sauce interspersed with pellets of pus——and this may extend well beyond and soak the cotton wool placed around the lint, which, itself, is in a deplorable condition.

On removing the soaked lint the skin area, thus smeared over with the infective discharge, should be carefully cleaned before a second application of the paste is made. This can be done by pledgets of cotton wool soaked in hot water. Cover up the open mouth of the carbuncle first and then cleanse the surrounding area. In place of hot water $H_2O_2$ may, with advantage, be employed.

Depending upon the site of the carbuncle, the *duration* of the treatment varies. If *complete rest* of the part affected can be ensured, healing is usually effected in from 10 to 12 days; alternatively, it takes about a week or ten days longer. Thus, a carbuncle developing right over a hamstring tendon takes much longer to heal when the patient keeps limping about than when he is ordered to bed, however much he might fret under the offered indignity. "Rest to the inflamed part" is the silent cry of nature, which is just heard through the pain and discomfort caused by any attempt at moving it and the delay which occurs in the heeling if this is not heeded.

Stop the application when all sloughs have disappeared and the wound is clean, fairly dry and shows healthy granulation.

**Cellulitis of the skin** can be treated on the above lines.

2. **Erysipelas.**—Although it might not sound very rational to hear of **Erysipelas** being treated with **Morrison's Paste,** yet fact bears out the usefulness of the application. If the treatment is resorted to early in the case, the spread is certainly controlled, and the constitutional symptoms improve after 3 or 4 six-hourly applications. The *modus operandi* is the same, and the dressing soaks through more or less. Perhaps, in such cases, the "paste" acts by arresting the onward passage of the infective fluid through the lymphatics and, further, by inducing hyperaemia of the part through dilatation of the cutaneous vessels, brought about as a

result of its slightly irritant action on the skin. The application is to be persisted in until the epidermis peels off and the skin regains its natural character.

3. **Gumboil.**—Anybody who has ever had this knows how unpleasant the condition is, and how notoriously it tends to persist chronically or recur. All sorts of things are tried in this condition with but partial success. When the boil is just forming, apply a little of the paste on a little cotton wool and gently press it down upon the site. The cotton wool will be held in its place by the pressure of the cheek. Soon after the application saliva will be felt to accumulate in the mouth, and it is often a sight to see the total amount collected in the spittoon at the end of half an hour or three quarters. At the end of this time the cotton wool, which is soaked through and through, is removed, and another applied after a convenient interval. Three to four applications in the course of 5 to 7 hours will have been found to cut the progress short.

Even when pus has formed and evacuation is decided upon, **Morrison's Paste** comes gallantly to the rescue. It can be applied, as before, to the abscess without incising the latter (if the patient objects to the use of the gum lancet) or after evacuation of the abscess cavity. The latter method yields quicker result; and it is often surprising to note how quickly the infiltrated gum responds to the stimulus of the "paste." A sure and quicker way is to introduce a little cotton wool, thoroughly smeared over with the paste, between the edges of the incision and leave it there for about half an hour. A little smarting follows, but soon this yields place to a feeling of grateful warmth and relief accompanied by a copious flow of saliva. Three applications have been generally found to complete a cure.

Such, then, are some of the spheres of the dynamic action of **Morrison's Paste.** I am persuaded, however, that this can be extended with judicious thought and care to other inflammatory though seemingly divergent conditions, of which, if the opportunity occurs, I shall be glad to treat in a subsequent contribution.

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# HAEMATURIA *

BY

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Haematuria is one of the most important symptoms which we as practitioners have to consider. It is not a disease but a *symptom* and is restricted to cases in which blood is effused from the vessels of the kidneys, ureters or bladder and discharged along with the urine, excluding from the definition urethral hæmorrhage in which the blood escapes by drops or flows in a continuous stream from the urethral orifice, and which is not properly a mictus cruentus. It also does not apply to those cases in which on examination microscope reveals red cells.

**Case Taking** :—When a patient complaining of passing blood in the urine comes to us for treatment it is our foremost duty to find out if the case in question is of real haematuria because we may not be able to detect blood in the urine if it is passed in minute quantities, and which can only be found out by chemical test (see below) or by the help of a microscope.

The examination should be conducted in the following manner:

(1) *The history of the patient* and of his urinary troubles should be taken.

(2) *The character of the urine should be investigated,* noting its colour, and whether or not it is intimately mixed with the blood. Blood in the urine usually makes the reaction alkaline. Blood may be diffuse in suspension or in clots. On standing it may sediment out or remain diffused, giving the urine a smoky colour (typical of acute Bright's disease). Large cylindrical clots may signify ureteral bleeding. Blood-casts signify renal origin. Blood which separates out very quickly is more apt to originate from the bladder and prostate than from the kidney.

(3) *Ascertain whether the blood comes chiefly at the beginning of micturition, chiefly at the end, or whether it is intimately mixed with the urine and gives it a smoky tint.* The fallacy of menstrual blood must be avoided by catheterization. Menstrual blood does not clot. In order to ascertain the precise moment at which the blood appears in the stream it is necessary for the attending doctor to see the patient urinate. The appearance of

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bright, crimson blood chiefly *at the commencement of micturition*, the remainder of the flow being clear, indicates two distinct conditions—the lesion is either in the prostate close to the neck of the bladder, or a malady (gonorrhoea) or injury is present in the urethra. Sometimes the quantity of blood is so much that it flows backwards into the bladder and mixes with its contents, then the whole of the urine becomes more or less coloured. If *the blood comes most frequently at the end of micturition* and especially if in clots, it is probably of vesical origin. If *the blood is intimately mixed with the urine* and gives it a smoky tint it is probably of renal origin. Sometimes the blood is seen to flow from the meatus spontaneously or quite independently of micturition. This shows that the haemorrhage is due to some injury or disease of anterior urethra.

(4) *Microscopical examination*:—The urine may be found to contain shreds of tumour, epithelial cells, or blood casts which could alone be derived from some special part of the urinary track. Here also we can find out the source of the haemorrhage whether from kidney, bladder, seminal vesicles, prostate or urethra —posterior or anterior; also an opinion as to the nature of the disease can be formed;

(5) *Cystoscopy*:—This will demonstrate the existence of a lesion of bladder whether the blood is derived from kidney or ureter.

*N.B.*—Three possible sources of error are generally met with in assuring that the patient really has blood in the urine:—(*a*) contamination, particularly in female patients, and especially where we have to consider the question of microscopic blood; (*b*) occasional cases of paroxysmal haemoglobinuria, occasionally noted in syphilis and (c) presence of hematin in the urine, occasionally seen in cases where there is an extensive bruising of tissue remote from the kidney.

The first possibility is readily decided by examining the catheterized urine; the second and third by a microscopic examination of urine which of course would show red blood cells in cases of genuine haematuria.

Other factors which help in history taking in cases of Haematuria are:—

(6) *Age of the patient*:—An old man giving a history of frequency of micturition for the last several years, perhaps worst at night, with a gradually slowing stream, and then suddenly passing very bloody urine, means hypertrophy of the prostate.



Haemorrhage is a much more common complication of benign hypertrophy than of cancer, and it is one of the diagnostic points in these two conditions, as is also the length of the history, which is longer in benign cases. A young adult complaining of frequency, perhaps worse at night, and in whom we find a few red blood cells in urine at once suggests the possibility of renal tuberculosis. Bleeding in these cases is usually microscopic in character, although occasionally gross haematuria is seen as an early symptom. The young or middle-aged male, complaining of frequency, worse by day, with associated symptom of stopping and starting, means suffering from vesical calculus.

(7) *Pain*:—A very valuable aid to locate the source of trouble. The characteristic renal colic is well known. More often than not it indicates calculus. However it might mean any one of several other pathological conditions in the kidney and the pain itself might be incidental to the passage of clots through the ureter. Dysuria, or painful micturition, points rather strongly to some lesion in the bladder or posterior urethra. Frequency also points to the same source, only it is important to bear in mind that there is frequently an underlying cause, such, for example, as cancer or renal tuberculosis.

**Test for blood**:—There are several ways for determining the presence of blood in the urine. The following are some of the important ones:—

(1) *Morphological or microscopic*:—When the urine is allowed to stand the corpuscles and colouring matter may fall as a deposit when they are easily recognised by microscopic examination. This is most readily seen, and the discs remain visible for the longest time when the urine is acid or neutral, also if the urine is distinctly red or brown and turbid, the discs will be there in abundance, but when the urine is alkaline (ammoniacal) or of low specific gravity, the colouring matter is liable to be dissolved out of the corpuscles, and these by inhibition of fluid become distended and appear as almost colourless spheres instead of flat discs. This characteristic appearance is therefore lost. Occasionally the edges may become serrated from shrivelling of the corpuscles or may present protrusion of their substance.

(2) *Spectroscopic*:—This examination affords a very delicate and reliable test. Blood even in minute quantities gives the characteristic absorption bands of haemoglobin in the yellow and green between the Frauenhofer's lines D and E, the narrower, darker and better defined band being nearer to D. Methaemoglo-

bine gives three bands, two between 'D' and 'E' and one in red portion between 'C' and 'D'. Haematoporphyrinuria (iron free haematin)—urine has a port—wine colour. Guaiacum test is negative.

*With spectroscope* :—If no band, extract the pigment by shaking up urine with amyl-alcohol or acetic either or after addition of a few drops of acetic acid. The extract shows four bands of alkaline haematoporphyrine, one at the junction of the red and yellow portions, one in the yellow portion, one in the green portions and one between green and blue (broadest). On adding a drop or two of HCl—bands of acid haematoporphyrine. Two bands, one in orange and one at the junction of yellow and green. Haematoporphyrine in urine is found in sulphonal poisoning.

(3) *Chemical* :—The following tests depending upon the presence of the blood pigment will be positive in haematuria and hoemaglobinuria.

(*a*) *Heller's test for haemoglobine* :—

(1) Take two inches of urine in a test-tube.
(2) Render it strongly alkaline with Na OH or KOH.
(3) Boil.

*Result* :—If haemaglobinuria be present—the deposit is brownish—red in colour, and the supernatant fluid is bottle green. The deposits that are the precipitated phosphates carry down the haemoglobin with them and are coloured with that.

*Fallacy* :—Senna, santonin and rhubarb give the same reaction.

(*b*) *Guaiacum test* :—(1) Take an inch of urine in a test-tube and add Tr. Guaiacum two drops in it—a white precipitate results. (2) add in the above one inch of ozonic ether and shake constantly.

*Result* :—Blue colour is seen at the junction of the fluids if the blood—pigment is present.

*Fallacy* :—Iodides (the blue colour appears much more slowly and throughout the fluid instead of at the junction). Saliva gives the same reaction.

*Pus with guaiacum* :—Greenish blue colour, disappears on heating. It is very important to have Tinc. Guaiaci freshly prepared, and to this end it is best to dissolve a little of the resin in Spt. Vin. Rectificatus at the same time when it is used.

(*c*) The addition of acid carbolic to urine containing blood causes coagulation of any of the albumin which may be



present and also changes the colour of the fluid to peculiar reddish tinge.

(*d*) When a little glacial acetic acid and a crystal of common salt are added to urine containing blood, Teichmanns' crystals are deposited.

(*e*) Phenolphthaline test.

(*f*) Schaer's test.

(*g*) Benzidin test.

**Causes of Haematuria.**

(*a*) *Renal* :—(1) Stone in kidney. (2) Tuberculous disease of kidney. (3) Tumours-malignant (hypernephroma, sarcoma) and other tumours especially cystic kidney. (4) *Inflammations* :—(*a*) Acute oedematous nephritis. (*b*) Acute haemorrhagic nephritis (rare). (*c*) Acute exacerbations of chronic Bright's disease. (*d*) Septic nephritis—These are all most common. (*e*) Calculous pyelitis. (*f*) Hydronephrosis. (5) Congestions-acute and chronic. (6) Infarction as in septic endocarditis. (7) Villous disease of the pelvis of kidney. (8) Injury to loins (kidney)—Laceration or rupture etc. (9) Passive congestion of kidney *e.g.* in heart disease, chill or strain of exercise. (10) Coli infection and oxaluria. (11) Blood poisons and blood diseases :—Acute fevers (chiefly scarlet fever), mumps, acute rheumatism, malaria, relapsing fever, influenza, small-pox, black water fever, leukœmia, purpura and scurvy. (12) Paroxysmal Haemoglobinuria.

(*b*) *Ureteral* :—(uncommon) (1) Stone during passage of renal stone. (2) Tumour. (3) Tuberculosis. (4) Dilatation.

(*c*) *Vesical* :—(1) Congestion, stone, acute and tuberculous cystitis. (2) Ulcers of mucous membrane usually T. B. (3) Tumours especially villous tumours, adeno-carcinoma, papillary carcinoma, infiltrating carcinoma, tubercle, polypi, papilloma, benign etc. (4) Ulceration and fissure at the neck of the bladder. (5) Sudden and complete emptying of an over distended bladder *e.g.* in acute retention. (6) Injury and fistula. (7) Vesical varix, certain diseases—scurvy and purpura and Bilharzia Haematobia (less common). (8) Foreign body in bladder.

(*d*) *Prostatic* :—(1) Enlarged prostate (most common). (2) Hard small prostate with erosion of bladder mucosa. (3) Tumours non malignant and malignant (adenoma, carcinoma). (4) Prostatic abscess of a non-venereal type.

(*e*) *Urethral* :—(1) Stricture. (2) Gonorrhoea. (*a*) Acute posterior urethritis. (*b*) Inflammation of colliculus seminalis. (*c*) Acute seminal vesiculitis. (3) Dilataion of stricture and meato-

tomy. (4) Stone. (5) False instrumentation. (6) Papilloma and carbuncle, urethral angioma. (7) Fracture of pelvis. (8) Injury, laceration and rupture of urethra. (9) Excessive sexual indulgence (in males).

(*f*) *Endemic Haematuria* :—caused by Bilharzia Haematobia.
(*g*) *Idiopathic Haematuria* :—(Essential Haematuria).
(*h*) *Certain other drugs.*
(*i*) *Certain other diseases* : —(*a*) Abdominal aneurysm. (*b*) Epidemic cholera. (*c*) Circumcision. (*d*) Hysteria. (*e*) Appendicitis. (*f*) Dysenteric ulcers.
(*j*) *Painless gross haematuria.*

**Differential diagnosis of Haematuria.**—

(*a*) *Renal* :—(1) *Stone in the kidney* : History of the patient having passed 'gravel' for a long time or typical symptoms of renal colic. Pain in the perineum and neck of the bladder, which radiates to the back and down the thighs but is especially noticed at the end of the penis immediately after micturition. Increased frequency of micturition -these phenomena are more marked in the day as they are increased by any form of exercise. Sometimes the flow of the urine suddenly ceases before the bladder is fully emptied and if some change in the body position is taken, the bladder empties fully. In children the above symptoms are often of a less severe nature. They wet their clothes and beds at night, and habitually pull the prepuce and penis owing to vesical irritability. Radiography or sounding will clear the diagnosis. Cases of small stones more frequently present a symptom of renal colic. Many stones are passed spontaneously and many with the help of a little cystoscopic examination. Some of the larger stones often do not cause colic. Many very large calculi give no symptoms and are discovered only accidentaly in the course of other operations.

*The blood in urine* is small in amount sometimes constantly present, but generally with more or less intervals and commonly oft repeated. In some cases the haematuria is very slight, while in others it may be the only symptom. The bleeding is not closely related to pain, or to the developement of other symptoms, but as a rule is increased by body movements. This however, does not follow immediately, but hours, or even days, may be elapsed between the exertion and the appearance of blood in the urine, while haematuria of renal calculus is more copious after exercise (hence haemorrhage more profuse in the day). Rest in bed usually appreciably diminishes it. This peculiarity is most



characteristic. The blood being dervied from renal pelvis and not from the parenchyma, contains no blood casts and the quantity of albumin is fully explained by the presence of blood. Crystals are present also, and guide us as to the nature of the stone. Mostly blood and pain occur with the oxalate calculus. When the urine is evacuated the blood is thoroughly mixed with it, but not so intimately as when the cause of haematuria is structural disease of the kidney, and if the urine be allowed to stand for a few hours, the blood corpuscles are readily precipitated and leave the supernatant urine clear. If free from blood the urine will also be found non-albuminous. The presence or absence of pus in the urine will be determined by circumstances, whether or not the calculus has induced inflammatory changes, and the existence of a swelling in the renal region will depend upon the amount of freedom for the escape of urine by the ureter.

(2) *Tuberculous disease of the kidneys* :—The examination of the urine is important. Bleeding is chiefly seen early in the course, and gradually diminishes. It is very irregular and is never profuse and is always present at sometime during the course of a tubercular nephritis. The urine is acid, with a more or less abundant deposit of pus, which may sometimes show on examination T. B. which can be demonstrated if the urine is centrifuged and the deposits suitably stained or their presence can be proved by cultivation or animal inoculation. Urine also contains amorphous granular matter but no crystals or tube casts. Albumin may be seen in the beginning. The kidney is enlarged to some extent and is tender only in last stages, when it becomes like a tumour of considerable size. This tumour may contain a large quantity of pus, and even a phosphatic concretion. Other typical signs of tuberculosis are present eg. night sweats, loss of flesh, rise of temperature in the night in later stages. The patient complains of increased frequency of micturition, worst at night—this being a very early symptom, the patient urinating every hour or two. Unilateral aching pain, more or less continuous in the loin. Further the presence of Phthisis Pulmonalis, tuberculous disease of the bones or joints, of the testicle, seminal vesiculae, the mesenteric glands, the intestines etc., may give a clue to the cause of haematuria. Family history of tuberculosis is usually found.

(3) *Tumours* : — Difficult to diagnose. On examination, a rapidly growing tumour, usually irregular or nodulated and of firm consistence is found. Its mobility may be limited by adhesions ; manipulation will elicit tenderness. Rarely tumour pulsates and a

bruit may be heard in it. There is progressive emaciation and loss of weight. The pain is variable, sometimes very severe owing to pressure upon or infiltration of the neighbouring organs, sometimes, it is totally absent. The haematuria is frequent, intermittent and of moderate amount. It may be profuse, sometimes so profuse as to cause marked anaemia. Sometimes it is sudden without any apparent cause and not influenced by treatment and ceases as spontaneously as it appeared. It is often developed *without* any preceding pain. It is usually an early manifestation being usually total and not terminal. Bleeding is most likely seen during night, while the patient is at rest in a recumbent posture. Blood moulds of the pelvis and ureter are common and when passed may cause renal colic. Bleeding is not so common in children. Intervals between haematuric attacks become shorter. The urinary deposit may assist in the diagnosis. *Always suspect tumour if haematuria is profuse and painless.* The haematuria is not accompanied by cylindruria.

Hypernepheromata are the commonest tumours of the kidney. Here the haematuria is late in appearance and less persistent than in other malignant growths of the kidney. Next comes sarcomata. The diagnosis is certain if metastasis is present.

*Cystic disease of the kidney* is a rare condition and occasionally bleeds profusely. The chief diagnostic points are;—(1) Swelling, usually in both lumbar regions, of insidious growth, at first very hard and later on yielding. (2) *Urine*—abundant, pale, of low specific gravity and contains traces of albumin, blood and casts. (3) Heart—hypertrophied and hightensioned pulse etc. (4) Large bilateral abdominal tumours (although occasionally one kidney may bleed) are very often the deciding points in the diagnosis.

(4) *Inflammations*:—(*a*) *Acute oedematous nephritis*:—It may be diagnosed by (1) Albumin in large quantities. (2) Urine-acid, irritating, scanty, sometimes only 10—20 ounces per diem, turbid or smoky or of a dark-brown line from the blood, porter—coloured pink or even distinctly red; epithelial, hyaline, granular, and blood casts, free renal epithelium, and red blood corpuscles present. (3) Dropsy—generally from the beginning. (4) Skin—waxy pallor. (5) Some malaise, even some temperature for four or five days, discomfort, even pain in the loins. (6) Uraemic symptoms—vomiting, headache, drowsiness may be seen early. (7) Pulse-hard and tense. In severer cases dilatation of the heart—impulse may be displaced outwards.

(*b*) *Acute haemorrhagic nephritis*:—It is rare. The oedema is insignificant. Urine—'smoky' at the onset. Smoky colour due to blood. Oliguria—not conspicuous at onset. Red cells in sediment predominate over all other morphological elements.

(*c*) *Acute exacerbations of chronic Bright's disease*:—(1) Albumin in small quantity (2) Urine—Nocturnal polyuria very characteristic, diurnal quantity greatly increased (up to 5 pints or more), sp. gravity, very low, urine is clear, pale, containing few hyaline or granular casts; and few red cells may be found in the early stage and persist for years. (3) Dropsy—usually absent, but if present, it may be due to secondary cardiac failure or supervention of acute nephritis. (4) Pulse shows persistent high blood pressure and there may be hypertrophy of the left ventricle. (5) Chronic or incipient uraemia throughout. (6) Patient has a greyish pallor but is usually robust. Other less important diagnostic symptoms are headache, insomnia, digestive disorders, dyspnoea, impairment of mental and bodily vigour, tremors etc., there may be early blindness with or without retinal changes. Albuminuric retinitis may appear at any time and very often early.

(*d*) *Septic nephritis* (*Pylo-nephritis*):—(1) Patient already a victim to stricture of urethera, enlarged prostate, cancer of uterus or cystitis etc. (2) First symptom, chill or rigor with temperature 104—105°F followed by a typhoid or Septicaemic condition. (3) Lumbar pain may be present and there may be tenderness on deep pressure in the loins. (4) Urine may contain, pus, mucous, blood, or albumin, and is usually abundant, but may decrease due to preceding chronic nephritis.

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## INVESTIGATION OF "A" OIL—THE ANTISEPTIC OIL*

BY

N. S. SAHASRABUDHE M.S.,

*Nagpur, C. P.*

IN August 1931 it was, that I was asked by a medical friend of mine to make use in practice, of "A" Oil—the Antiseptic Oil—prepared strictly according to an Ayurvedic formula and method. Before doing so, I decided to investigate into its antiseptic property. Having no proper laboratory and equipment with me I adopted the following procedure.

The oil was boiled for sometime. 24 hour old broth culture of B. Typhosus was obtained. Several sterile tubes were taken

* Specially contributed to the Antiseptic.

and oil put into them—3 c.c. in each tube. These tubes were then inoculated with 1 c. c. of the culture and put into the incubator. At definite intervals, one tube at a time was taken out. On taking out the tube 2 c. c. of the mixture from it was transferred to a sterile broth tube, which was then put into the incubator. All these broth tubes were incubated for 24 hours and result noted macroscopically.

| Tube No. | Interval. | Result. |
|---|---|---|
| 1 | 15 m. | Full growth. |
| 2 | 30 m. | ,, |
| 3 | 45 m. | Growth attenuated |
| 4 | 1 hr. | ,, |
| 5 | 1 hr. 30 m. | ,, |
| 6 | 2 hrs. | much attenuated. |
| 7 | 2 hrs. 30 m. | suspicious |
| 8 | 3 hrs. | clear. |

Regarding tube nos. 7 and 8, I put in loopful from each into another broth tube and incubated these for another 24 hours; the first showed hardly any growth and the second was clear. I interpreted the result like this—B. Typhous., in contact with the oil for 45 ms.—their growth was attenuated, while if they remained in contact for 3 hrs., they died.

Though a very rough method, it gives an idea without much outlay as to whether the material supplied kills the bacteria or not and if so in what time.

Subsequently I used it in cases of diverse interest a few of which are noted below.

1. A student, aged 19, got some injury to his ankle, while on camp. He was brought a week after and showed acutely inflamed ankle with a wound, about the size of a rupee, just below the medial malleolus; bone was felt at the bottom. On thorough cleaning, it was packed with gauze steeped in "A" oil; the wound and the ankle were covered with a piece of gauze soaked in "A" oil. This dressing was continued throughout. The pain subsided within 48 hours, and the inflammation of the ankle within a week. The wound healed within 4 weeks time, without any further trouble.

2. A girl, aged 8, with both the superior and inferior extremities burnt (burns of 2nd and 3rd degree). The parts were cleaned with 1 in 4000 of acriflavine and then wrapped with lint pieces soaked in "A" oil. Bandage with gaps here and there was loosely applied. The gaps were left for the attendants to put the

oil to keep the lint well soaked throughout the day. Next day, loose skin, blebs, etc. were attended to and parts dressed as above. The parts healed within 3 weeks time. During this period the patient neither showed any temperature nor the parts any signs of inflammation and infection. Some deformity was expected after healing, which, however, did not occur and the girl can now freely move and use her legs.

3. A lady, on pilgrimage, got an injury to her sole with a nail. It remained untreated for 10 days. On her return, suppuration had set in with an opening on the dorsum. The wound was full of pus with gangrenous masses at the sole, all foul smelling. The smell was too much and used to hang on in the dressing room for quite a good length of time so much so that it had to be washed with phenyle after the dressing. "A" oil was instilled in the wound with a syringe and dressing done. Within 4 days the foul smell disappeared. The dressing as above was continued and the patient discharged cured within 5 weeks time.

4. A boy, aged 10, with chronic skin disease of the scalp; some carbolic acid was applied to it at home. Severe inflammation occurred and the boy was brought to me in much agony. I dressed the scalp with gauze pieces soaked in "A" oil. The whole inflammation with the original skin trouble disappeared within 14 days.

Practically this is the first product, purely Swadeshi, and found so effective on the surgical side. I congratulate the management of the Aushadhalaya for bringing out this product.

## Cases and Comments

### LIPOIDIODYSTROPHY AFTER INSULIN INJECTIONS

BY

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IN TWO cases of Diabetes mellitus with high blood sugar (330 mgms. of glucose per 100 c.c. and 290 mgms. of glucose per 100 c.c. Folin and Wu's method of estimation) which required daily injections of Insulin, Lipoidiodystrophy at the site of injections was

observed. One of these cases a lady aged 65 required 50 units of insulin a day given an hour before the mid-day principal meal, to free the urine from presence of sugar. The upper arm was chosen as the site of injection. The injections have been given daily for the past 2 years and 10 months except for 3 days after operation for Cataract in the right eye during which a more or less complete fast and rest in bed was observed. A year later, the lady accidentally slipped, while walking back from the kitchen, which resulted in an intracapsular fracture of the right femur. Insulin, and rest in bed with sand bags for 4 months was ordered and adhered to; 50 units were injected daily along with nutritive feeding, a fairly high level of Carbohydrate being added. The blood sugar was 190 mgms. per 100 c.c., but the urine remained sugar free. The lady is now able to move about with help and is able to use her lower limbs fairly freely. Both the arms have thinned out almost to the bone, the tendons of the muscle showing out like thin cords, a regular "skin and bone" picture, there being an absence of the subcutaneous fat.

The other patient had a much less eventful course but shows the same loss of subcutaneous fat.

Continental authorities have also reported such observations. It seems safer to change the site of injections to other places of the body apart from the upper arm, but on the whole it does not seem possible at present to avoid absorption of fat, at the site of insulin injections.

Another point of observation, perhaps not strictly relevant to the subject, is that in most diabetics, constipation is a serious obstacle due probably to the drainage of water by polyuria, the fæces forming harder waterless masses. Pituitrin alternated with insulin on every 5th and 6th day ½ to 1. c.c. according to the situation meets this condition well. The American preparations of insulin do not require this help so often as the English preparations. The explanation of this observation is not obvious at present.

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# A CASE OF OPIUM POISONING TREATED BY ATROPINE SULPHATE

BY

DAULAT RAM BHALLA, M.B., B.S.,

*Karam Chand Hospital, Batala.*

AT 3 p. m. on a Tuesday, a Hindu female of about 18 years, was brought to my hospital from a village some seven miles away. The symptoms were:—A little drowsiness, gait unsteady, talk occasionally incoherent, face anæmic, eyes sunk in orbits, pupils very contracted, conjunctiva and tongue dry. She admitted having swallowed at least ¾ of a tola of opium about three hours ago.

**Treatment adopted.**—She was admitted into the hospital and washing out her stomach, with condy lotion by means of a rubber syphon, was started and continued till pink water began to return. As much as three buckets of the lotion had to be used to clear the stomach of its contents (undigested bread and dal). Before the rubber tube was removed, 2½ ozs. of a saturated solution of magnesium sulphate was introduced into the stomach; but she vomited part of it. The stomach-wash improved her condition a bit temporarily. At 4 p. m. ¼ gr. Atropine sulphate injections were started. Only the first seven injections could be given half hourly; the next three, hourly, followed by 4 injections at intervals of 2 to 2½ hours; the last injection was given next morning at 10-30. Fourteen injections in all. Along with the injections enteric pills of potassium permanganate (2 grs.) were also given by mouth, and she had plenty of Condy's lotion to drink also hot tea twice. But by 8-30 p.m. she became quite unconscious and therefore unable to swallow anything.

After the stomach-wash and until she became unconscious she was constantly made to walk about even though she needed support, and was kept awake and talking. But inspite of the pills and injections the drowsiness increased, her gait became more unsteady and her talk incoherent, until by 8-30 p. m. as stated above, she became quite unconscious. The atropine injections were, however, continued, though hopes of recovery were very poor. In fact her near relatives lost all hope, and being afraid of the legal consequences of her death deserted her after putting her down on the floor, where she remained comatose till 2 a. m.

During this period artificial respiration had often to be resorted to, to keep up her failing breathing.

From 2 a m. the patient's condition improved by slow degrees with returning consciousness and power of speech. At 4 a.m. for the first time since admission, she passed urine. As soon as she regained the power to swallow 2 ozs. of a saturated solution of magnesium sulphate was again given to her and was again partially vomited. The Potassium permangnate pills were again begun.

By 11 a.m. she was able to walk without any support and had a watery brown motion. At 4 p. m. the pupils began to dilate. By 5 p. m. another dose of magnesium sulphate (1½ oz.) was given. During the following night she had four loose motions. She felt sleepy and frequently went to sleep. By 7 a. m. on Thursday morning her speech was quite coherent, her pupils dilated, and she could walk quite steady and normal. And so she was discharged from the hospital as cured. She is still alive and enjoying good health.

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# GONORRHOEAL CYSTITIS

BY

M. A. KRISHNA IYER, L.M.P.,

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OF ALL the obstinate and intractable diseases, intractable because very few come for treatment during the early stages, Gonorrhoea can be placed somewhere at the top of the list. Few scientific medical men would have had the chance of treating cases of early infection. Even if by chance some cases are encountered during the early period of infection, a full and thorough course of treatment for a cure is never availed of by them. For it is one of those deceptive diseases wherein all the painful and otherwise troublesome symptoms subside within a few days, in a few hours at times, so much so that the patient may not even believe in the advice to continue the proper treatment to make him not only symptom-free but also infection-free. We all know that all the acute symptoms such as the burning sensation and passing of blood during micturition etc. subside even without treatment. It is this fact of subsidence of the acute symptoms that helps many to widely advertise to the lay public about a "3 hours cure" or a "3 days cure" for gonorrhoea, thereby many being victimised into the false belief of a certain cure. Again, it is this fact that has



added to the list many unscientific quacks who become reputed Gonorrhoea Specialists.

The following cases well illustrate the chronic intractable nature of the disease, the false security afforded by the so called native treatment, the irreparable damages done to the different vital organs of the body, the indirect cause of many childless homes and the agony and the sufferings, many of the misguided fall a victim to.

(1) During the first week of last May, I was called in to attend upon a woman aged about 30 who was rolling in bed with agonising pain in the lower part of the abdomen. She could not sit, stand or lie on her back. On examination the whole of the lower part of her abdomen below the level of the umbilicus was very tender and was rigid. The pulse rate was 128 and the temperature was 103·0. Her tongue was badly coated and bowels constipated. The general aspect of the case, the patient's expression, the nature of the pain at first suggested Acute Abdomen. But her history of previous illness gave a clue and the examination of the urine confirmed the diagnosis. She passes very little urine at a time and micturition is rather frequent. At the end of each act she used to jump with pain, which is so severe that she dreaded the next voiding. No diet except soda water could be retained. In a test tube full of urine one half was white sediment. This deposit was found to be pure pus and the stained specimen showed plenty of pus cells and gonococcus.

(2) A male aged about 45 was carried to the hospital one morning last month, for retention of urine. Except the latter symptom for which I had to pass the soft rubber catheter morning and evening, all the other signs and symptoms were just like the former case. One other noteworthy feature in this case was that the sediment in the urine was of a flocculent nature that it used to plug the eye of the catheter, so that the instrument had to be removed and repassed several times during the withdrawal of the urine.

(3) A young man aged about 28 came to me for the treatment of very turbid urine. He gave a history of Gonorrhoea some 6 months ago. He has no other symptoms except the condition of his urine. The deposit examined under the microscope revealed plenty of pus cells and gonococcus.

All the above cases were treated with bladder lavage and internal administration of urinary antiseptics and injections of salfarsenol. To encourage flushing of the kidneys and bladder

plenty of fluid intake was insisted. All the cases were discharged when the urine was normal and the centrifugalised deposit showed no pus cells or gonococcus.

One point that requires special mention in all the cases is that the agonising pain subsides after the first bladder wash.

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## UNUSUAL SYMPTOMS OF AMOEBIASIS

BY

ATITHI PRASANNA JANA, M.B.,

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*P.O. Balagaria. District, Midnapore.*

*Case No. 1.*—A Muhammedan boy aged about 8 years was suffering from excruciating pain in the splenic region for about four months. It became so very intense that the patient bent forwards and to the left with his hands pressing over the splenic region screaming in agony. The intensity of the pain was periodical coming about every half an hour and lasting some five minutes at most every time. In the interval there was only a slight uneasiness felt inside that region. On examining nothing abnormal could be elicited, neither there was any pain on pressure. No history of dysentery. A blood count was taken and was found normal in all respects. An injection of Emetine-hydrochlor gr. $\frac{1}{2}$ was given intramuscularly. To my astonishment I found on enquiry that this one injection has cured him completely of the troubles.

*Case No. 2.*—A Hindu female aged about 25 years complained of pain and a lump of the size of a tennis ball appearing in the right lumbar region suddenly with pain and disappearing also with equal suddenness. With the appearance of the lump she wreathed in agony. She had one child. Amenorrhoea for last six months though menstruation started and was in order for several months after the childbirth. The onset of the present symptoms dates with the amenorrhoea. On examination in the standing posture the lump was visible from a distance but on palpation nothing could be found. In the lying posture nothing abnormal could be found. Urination had no connection with either the swelling or the pain; so the possibility of a movable kidney was ignored. The husband gave history of his gonorrhoea and she was given an intravenous injection of 7 m of Iodine solution in 10 c. c. of distilled water, but to no effect. She was given an ecbolic mixture



for over a week and the menses started but neither the lump nor the pain subsided. Subsequently her husband told me one day of the presence of mucous in stool and I gave her an intramuscular injection of emetine hydrochlor gr. $\frac{1}{2}$. To my surprise I was informed that she had been relieved by half. Another injection of emetine was repeated and she was quite right. Though several more injections were insisted the husband refused and the patient ceased to attend.

*Case No. 3.*—A Hindu boy aged about 12 years suffering from fever and pain in the splenic region. The liver and spleen were both normal and could not be palpated. He was given treatment for malaria. The fever subsided and was off for several days, but the pain in the splenic region remained as before. On enquiry he gave previous history of slight mucous in stools off and on. Assuming the present pain to be due to amoebiasis, emetine hydrochlor gr. $\frac{1}{2}$ was given intramuscularly. He refused to have the injection repeated as the one injection that was given cured him completely.

In conclusion, I request my fellow practitioners to inform me if any one has met with cases of amoebiasis with such peculiar and diverse symptoms and being cured with one or two injections of emetine hydrochlor.

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## AN INTERESTING CASE OF VINEGAR POISONING

BY

DR. C. L. KHANNA,

*Asst. Surgeon, Nurpur, Kangra Valley.*

I WAS called upon to see a case at about mid-night on the 25th August with the complaint that a child of about 2 years had been given vinegar by mistake. A day before he was given calomel, because the child was complaining of constipation. On examination I found the child unconscious with hurried breathing. The pulse was feeble and rapid; the abdomen distended. The chest full of crepitation. Liver was much enlarged. Spleen normal. I at once gave the child little castor oil and few drops of good brandy and a diaphoretic mixture with little vinum Ipecac. Next morning I was told that the condition was the same; but the respiration not so

much hurried as last night. The temperature had gone up to 101. I suspected it might be a case of malarial fever of a bronchitic type; I put the patient on quinine and Pulv Rhei Co, four powders a day and a diaphoretic mixture with little Pot. Bromide gr. 3, three times a day. On the 27th morning the child had considerably improved, but his temperature was about 100. The quinine had upset the child and was found tossing on the bed, so I advised the parents to give the child one powder of quinine in the morning and to continue the diaphoretic mixture as usual. On the 28th morning temperature had come down to normal and it remained throughout the day. The child was brought to the hospital, much improved in condition while taking sufficient amount of interest in his surrounding. He was given the following mixture with rapid improvement.

℞

| | | |
|---|---|---|
| Pot acetas | | |
| Liq. ammonie acetas | ... | gr. 3. |
| Spirit Etheris nitrosi | ... | ♏ x. |
| Pot bromide | ... | ♏ v. |
| Syrup tolu | ... | gr. 3. |
| Vinum ipecac | ... | ♏ x. |
| Aquam menthae pip ad | ... | ♏ vi |
| | ... | 3 i. |

This is the first case I have seen of vinegar poisoning during my sixteen years' service.

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## Editorial

### THE ASSEMBLY AND THE MEDICAL COUNCIL BILL.

THE closing scene in the Legislative Assembly with regard to the Medical Council Bill had taken a strange and unexpected turn, when the Select Committee's report was placed before it for consideration on the 20th September last. The Bill, as emerged from the Select Committee, was unanimously passed, not a syllable, not even a comma having undergone alteration. Under normal conditions, the House was not in a mood to pass the Bill as it was, judging from the number of amendments that were given notice of, for its improvement. Then, what was it that made the House give its unanimous support to the Bill, withdrawing all the amendments at the last moment? It was the bogey of the Secretary of State's interference on the ground of its being a piece of discriminatory legislation and therefore opposed to para 123 of the White Paper, set up by both Mr. Bajpai, the Secretary and Sir. Fazl-i-Hussain, The Hon. Member in-charge of the Bill, that was responsible for this eleventh-hour unity in the House. The Secretary of State had not quite approved of the Bill, especially the clause relating to reciprocity. If only recognition had been given automatically to British and Colonial qualifications in India irrespective of whether Indian qualifications were recognised in those countries or not, as the original Bill did, the Secretary of State would surely have kept mum in the matter. But public opinion in India was tremondously opposed to such automatic

recognition and the Select Committee who were eager to please the public, devised a *via media* by which statutory recognition was given to medical degrees of those countries for four years only, prescribing at the same time that any qualification that was not covered by any approved scheme of reciprocity should automatically disappear from the schedule. But this was not entirely to Government taste, and to placate the Government, a safeguard had been provided by which the Governor-General, in Council was empowered to grant reciprocity in case the Indian Medical Council refused to do so. As in the case of so many other safeguards provided for in the White Paper, this safeguard also would not be enforced—such must have been the assurance given to the Select Committee by Sir Fazl-i-Hussain, in introducing this proviso—this thin end of the wedge—in the Bill to prevent any possible mishaps, in their future relationship, especially with the British Medical Council. The Select Committee were thus hoodwinked. Similarly in the Legislative Assembly, Sir Fazl-i-Hussain's emotional speech that he had made several surrenders from point to point in the Select Committee to reach an agreement, coupled with the resentment caused by the wrong and injustice done to the House on account of the unwanted interference of the Secretary of State, helped to cow down all the members and give their unanimous support to the Bill. The Assembly was thus won over. Whatever points Sir. Fazl-i-Hussain may have surrendered, we think he has scored the vital point. That is, he got established in India, a Medical Council, which, by reason of its composition, will play second fiddle to the General Medical Council of Great Britain, a council, where the helots of the profession, the Licentiates have no place, and a council, whose decisions in the matter of reciprocity can be over-ridden by the Governor-General in Council. And yet there are people and presses to extol the democratic character of this measure. Certainly, there is none so blind as those who having eyes, cannot see!

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## A REVIEW OF THE CAUSES AND FACTORS INFLUENCING PUERPERAL MORTALITY

No subject connected with the health of the nation has received more attention and consideration, both in the lay and medical Press, than Maternal Mortality. This however, need cause no surprise, as, viewed from either the humanitarian or the utilitarian standpoint, it is of supreme importance that the mothers in the



country should, as far as is humanly possible, be ensured safe conduct through pregnancy and child birth. To judge from published results in Great Britain and elsewhere, mortality from conditions associated with pregnancy and child-bearing, apart from annual variations, has shown no general tendency to improvement. It is high time that we in India should wake up and find why the maternal mortality after child-birth has not decreased in spite of the enormous amount of labour and money spent. In the latest text-book on Obstetrics and Gynaecology by Dr. Munro-Kerr, Ferguson, Young and Hendry, a special chapter is devoted to giving a review of the causes and factors influencing puerperal mortality and their classification of the causes of death should help us a great deal.

They classify maternal mortality as due to one of five main causes :—

(1) Intercurrent diseases complicating gestation (*e.g.*). Infectious diseases, diseases of the heart and lungs.

(2) Toxaemias of Gestation (*e. g.*) Pernicious vomiting, albuminuria, eclampsia.

(3) Haemorrhages of gestation (*e.g.*) abortion, ectopic pregnancy, Placenta Prævia, accidental haemorrhage, postpartum haemorrhage.

(4) Trauma, apart from haemorrhage and sepsis (*e. g.*) rupture of the uterus, vagina, perineum, shock, exhaustion in difficult labour.

(5) Sepsis in all its forms.

From a close study of the statistics of maternal mortality in Madras during 1931, we find that it approaches the above classification to a great extent. Out of a total of 13514 labour cases which came under the observation of the Child Welfare Scheme, 82 deaths occurred of which 16 were from eclampsia. Barring No. 1, which is common to all countries and therefore must be given the first preference, and more so, in India, where conditions are more favourable for mortality from infectious diseases, Eclampsia, takes the second rank as in England and Wales. This is also in accordance with the findings of Dr. M. I. Balfour who carried out an investigation racently on the factors leading to maternal mortality, throughout India; She reported "that Eclampsia was the cause of most of the maternal deaths in Madras Presidency although Bengal also

appeared to suffer severely; that osteomalacia was a common disease in Kashmir, and that the so-called anaemia of pregnancy occurred throughout India, the largest number of cases occurring in Bombay Presidency, especially in Bombay City. Osteomalacia seems to be entirely absent in Madras Presidency but is of relatively greater importance in Baluchistan, Punjab, Delhi and United Provinces than in Bombay Presidency and Sind. There is a greater tendency to post-partum haemorrhage in India while the extent of the prevalence of puerperel Sepsis it still a disputed question."

A large number of the deaths in the first group could surely be prevented by adequate ante-natal and intra-natal care, better nursing and wherever and whenever possible institutional treatment. For some, however, it may only mean a short prolongation of life. But for a great many it may mean life for many years if great care is taken during pregnancy and labour and if a recurrence of pregnancy is prevented.

Most of the deaths in the second group can be prevented to a great extent by adequate ante-natal care. At the present time it cannot be said that pregnant women thoroughout the country receive sufficient ante-natal supervision. Except in the larger municipalities where attempts are made in this direction by the Child Welfare Schemes, the great majority of pregnant women do not get any sort of ante-natal supervision.

The fourth group is a very important one because in the majority of cases death is due to faulty technique or judgment, or both. This group should therefore be entirely preventable because in addition to being actually a cause of death it is a great contributory factor in increasing the number of deaths due to sepsis.

Sepsis from all causes forms a very big group by itself. Any of the individual causes previously referred to, may be influencing factors in the occurrence of sepsis by reason of the condition itself and also by reason of the operative interference. Apart from this a large number of deaths from sepsis follow normal labour either because the attendant has not exercised sufficient care in preventing infection, or because the sepsis has resulted from an infective focus in the genital tract of the patient or on her person and has been conveyed to the genital tract.

In addition to these maternal deaths caused directly by the practice of obstetrics, there are a few factors of a less definite character. Some of them however are very vague and incapable as yet of accurate measurement. These include environmental conditions, residence, character of the population, housing and



over-crowding, personal conditions such as health, physique, means and cleanliness. There are others whose influence can be assessed with some degree of exactness. Purity of the mother, illegitimacy, ante-natal care, place of confinement, attendant at birth, nature and degree of operative interference are some of these factors. Of these by far the most important factor is ante-natal cure. By a really good supervision of the pregnant mother many of the risks are obviated and the mother is given a good chance of going through pregnancy and labour safely. With regard to the place of confinement, opinion is now gradually veering round to the view that for all normal deliveries the home is the safest place for confinement. But under existing conditions in India, unless the home and its environments are improved and ante-natal care has been taken and medical and nursing aid brought within easy reach of the masses, this is unthinkable. The personal factor is also of great importance. We mean that the attendant must be fully qualified. In fact the routine supervision of women during pregnancy and labour should be carried out by well-trained midwives, who should, if any abnormality arises, summon immediately the assistance of a doctor. In India, it has been the custom to blame ignorance and superstition for all the ills pregnant women are heir to but we consider that without the state coming forward to dispel that ignorance and superstition by adequate education and propaganda, much progress cannot be expected. Only a small beginning has been made in maternity and child-welfare propaganda in a few towns during the past decade and so far, the results have been appreciable.

Lt. Col. Russell, Public Health Commissioner, with the Government of India in his Annual Report for 1930 gives a vivid picture of the progress made in maternal welfare work in this country in these lines:—"In almost every large town, there is a great increase in the number of confinements which take place in hospitals or maternity homes or which are conducted by trained midwives in the people's own homes. In Madras, the percentage of births in hospitals rose from 16.9 in 1918, to 30.09% in 1930, whilst the births undertaken by the Corporation midwives were 41.39% in 1930 as compared to 11.0% in 1918. In Bombay in 1930, the number of confinements in the Wadia Maternity Hospital alone was one-sixth of the total births of the City. In Delhi, a conservative city, the births in the three women's Hospitals rose from 565 in 1921 to 1679 in 1931. Instances could be multiplied from many towns up and down the country. These

figures clearly prove that the reluctance among the women of India to leave their homes at the time of child-birth is gradually diminishing and that they are learning to appreciate the services of trained midwives. Unfortunately, hospitals and trained midwives are within the reach of comparatively few. The great majority of births take place in villages, where hospitals do not exist and where trained midwives find it hard to settle and earn a living. It is the village conditions which create the real difficulty in reducing maternal mortality rates or in providing for skilled assistance for the time of child-birth. In the villages the only help available n the mrjority of cases, is that of the indigenous midwife whose sole means of learning has been her experience."

# Gleanings from Medical Press

## MEDICINE AND THERAPEUTICS

**Neo-Salvarsan in Enteric Fever.**—Owing to the good effects produced by neo-salvarsan in such conditions as pregnancy, pyelitis, puerperal fever, influenza, etc., and to the uncertain results obtained by valveo therapy and shock therapy in, enteric fever, H. WOHLERS & R. AUDEOUD (Presse Med; May 17th, 1933, P. 799) were led to try this drug in the last named disease. The results in twenty cases show that neo-salvarsan has marked effect on the temperature, and benefits the general condition with a disappearance of the headaches and insomnia. The most favourable results were obtained in the earlier treated cases; hence, this treatment should be instituted as early as possible. The initial dose, given intravenously, is 0.15 gm. or in robust patients 0.3 gram. This should be followed by dose of 0.3, 0.45, and 0.6 grams at intervals of two, three and four days. The treatment is well tolerated. Of the twenty cases, twelve reacted very markedly, the temperature dropping in one to seven days, (most frequently in five) after the commencement of treatment; in fever the result was less rapid, the temperature falling in about ten days: three practically hopeless cases died. Statistics show that these results are better than those obtained by valveo therapy, and compare favourably with those following the administration of anti-typhoid serum. Some authorities attribute the beneficial action of neo-salversan to its bactericidal properties. The present authors do not concur in



this but believe that it is due to its stimulating action on the reticulo endothelial system, the defensive role of which has been clearly demonstrated in recent years.—*B. M. J. Aug. 19-1933.*

**Ringworm of the scalp.**—Treatment with thymol and oil of cinnamon. *Elmer C. Loomis, Arch. Dermat. and Syph.* 26: 495 (Sept.) 1932. The author used a mixture of 0.5 per cent thymol and 1% oil of cinnamon in the treatment of ten patients with clinical ringworm of the scalp. Eight patients showed no improvement, and two were considered cured. Loomis believes that this mixture is of little value in the treatment of this disease, and that the only satisfactory management is the method by which the infected hairs are removed.—*A. J. D. C. Aug. 1933.*

**The use of amidopyrine in diabetes insipidus.**—*D. Scherf; Wien. Arch. F. in Med.* 22: 457 (July 15) 1932. The use of large doses of a brand of amidopyrine caused a marked reduction of thirst and a pronounced diminution of water and sodium chloride diuresis in four of five cases of genuine diabetes insipidus. The effect diminishes if the remedy is continued over long periods. It reappears, however, if the remedy is discontinued for a short period and then given again.

The body weight does not change much during the administration of amidopyrine, and the specific gravity of the urine increases only slightly. The effect of amidopyrine seems to depend on the sodium chloride content of the serum. Phenobarbital does not alter the effect and the diuresis-inhibiting action of pituitary is not interfered with. The author recommends amidopyrine administered in intramuscular injection to combat the thirst of patients with diabetes insipidus. The exact mode of action of the drug is not well known.—*A. J. D. C. Aug. 1933.*

**The cure of malaria with atebrin.**—Dr. A. L. Hoops gives (B. M. J. June 10th, 1933) the result of atebrin treatment conducted by him and his colleagues in the tea-estates of Strait Settlements. He observes that proplylactic quinine is a delusion and relapse is over 50% with quinine treatment; with atebrin the relapse is only 4.34% (11 in 253 cases treated). He concludes that (1) fever is usually reduced as quickly as with quinine, (2) with the exception of subtertian gametocytes, it is rare to find malarial parasites in the blood after the second day of the treatment, (3) the treatment is short, simple and effective—1½ grains tablet three times a day for

five days only, (4) the drug is well tolerated by pregnant women, children, and in black water fever, etc., (5) relapses are rare, (6) the cost of a course is less (15 tablets of atebrin or one ounce of quinine), (7) when malaria is subtertian in type it is necessary to give a five-days course of plasmoquine in addition to atebrin (gometocytes are uneffected by atebrin) and (8) atebrin is a powerful preventive of malaria in the sense that most of those treated with it, being cured, are rid of the infection and completely non-infective to their fellows.

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**Sugar in the Local Treatment of Cancer.**—A Vital strongly recommends the local application of sugar-solution to inoperable cancers of the uterus. For over two years he has employed it with the most satisfactory results in cases where the foulness of the discharge had been almost intolerable. He uses a solution of equal parts of cane-sugar, glycerine, and distilled water to soak absorbent wool with which to plug the vagina. The daily use of this dressing gradually destroys the fœtor in about a fortnight, while any local irritation is cured. Vital explains the action by the exosmosis provoked by the solution causing a shedding of the broken-down tissues. (*Madrid: La Siglo Medico*).—*Medical World.*

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**Yellow Mercuric Oxide Ointment.**—G. N. Hosford and J. P. McKenney review ("Journal of the American Medical Association," 100, 1, 17) the history of yellow mercuric ointment, introduced into medical practice in the 'sixties by Alexander Pagenstecher. A questionnaire was sent to ten American professors of ophthalmology in the leading medical schools of the country and to two well-known emeritus professors. The frequency of use shown was as follows: For blepharitis, seven; for phlyctenules, three; for ulcer, two; for conjunctivitis two; for chalazion, two; for hordeolum, two; for folliculitis, two; for corneal nebulae, two; for last stages of interstitial keratitis, one. Of those who used it, four stressed its irritating properties. Of those who did not, one said that it was no good for any purpose; one doubted its value and almost always used something else. One eye pathologist said that his colleagues used it for all sorts of lesions but that he himself had given it up for all conditions except pediculosis. Careful search of the literature revealed no paper in English on the use of the preparation since 1866. The authors cannot see how a relatively insoluble drug, each particle of which is thickly coated with an insoluble vehicle, can diffuse

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

into the skin, conjunctiva or tears in sufficent quantity to be of any value as an antiseptic. They doubt the wisdom of ever prescribing it for home use.

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**Diagnosis and Treatment of Addison's disease.**—During the past two and a half years, George A. Harrop, Albert Weinstein, Louis J. Soffer and J. H. Trescher (*Journal A. M. A.*, June 10, 1933), treated thirteen cases of Addison's disease by means of the suprarenal cortical extract made according to the method of Swingle and Pfiffner. The diagnosis of each of these cases they have regarded as unequivocal. There were seven deaths. The other six patients are now living. All of the seven fatal cases have come to necropsy, and the clinical diagnosis of Addison's disease has in each been proved correct. Four were due to cortical atrophy. The authors believe that the clinical value of injections of the cortical hormone as a routine treatment during the remissions of Addison's disease has not been satisfactorily demonstrated. So far as their experience indicates, however, there is no danger whatever in the use of extract if this seems desirable. They stress the fact that they have never seen any untoward or toxic effects as result of the treatment by cortical extract, although they have used it in many types of patients, some of whom have received large doses both subcutaneously and intravenously. The authors do not doubt, however, that a faulty preparation may lead to dangerous consequences. The extract has no definite effect on hypotension or on the pigmentation. They are not convinced that it has any effect on nutrition and weight. The chief value of the cortical extract lies in the treatment of the relapse, the symptoms of which they regard as fundamentally those of shock, and due primarily to cortical deficiency. In patients showing such symptoms for longer or shorter periods, injections of the cortical hormone extracts are of definite value and may be of vital importance.—*North West Medicine.*

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**The Intravenous Injection of Methylene Blue in the Treatment of Cyanide and Carbon Monoxide Poisoning.**—There has been of late considerable interest in the treatment of gas-poisoning by Methylene Blue, and in the first number of the *Journal of Intravenous Therapy* for 1933, the subject is treated in an article which contains two short papers by Dr. Matilda M. Brooks of the University of California.

A case is described of a young man admitted to hospital shortly after he had taken poison. He was comatose, and showed spasms

of the voluntary muscles; there was extreme hypertension of hands and feet, and the pupils were contracted. Breathing was regular. The stomach was washed with sodium bicarbonate, and on the basis of the findings treatment for cyanide poisoning was begun. At the beginning of the treatment the coma was complete, the pupils fixed and the breathing shallow and irregular. An intravenous injection was given of 50 cc. of a 1 per cent sterile aqueous solution of methylene blue, and before five minutes had elapsed the patient was conscious, and normal except for a severe chill. Within fifteen minutes he was completely recovered.

The gastric washings showed 0.05 Gm. of potassium cyanide in 120 cc. of fluid. In a signed statement by the patient he mentioned that the sensation at the beginning was pleasant, a gradually-spreading painless numbness. After the injection there was a floating sensation, and no pain. In addition to this cure for cyanide poisoning, there is also evidence that methylene blue is effective in cases of carbon monoxide poisoning.

Dr. Brooks in her paper on the effect of methylene blue on HCN and CO poisoning gives the results of several recent experiments. It has been shown that methylene blue acts as a catalyzer upon the oxidative processes. From an experiment on the eggs of sea urchins, starfish, etc., it was found that methylene blue acts as a catalyst in activating $O_2$, and that it has no effect on increasing the $O_2$ consumption of tissues which do not possess aerobic glycosis, nor does inhibition of the respiratory ferment by CN affect the oxidation power of methylene blue. It was then thought desirable to see whether these effects of methylene blue could be shown in animals whose aerobic respiration had been interfered with. For this experiment rats were used, divided into groups of 20 each, 20 being treated with each gas and injected with methylene blue, and 20 used for the control experiment with each gas, they were placed one at a time in a chamber containing HCN gas, and the time which elapsed before unconsciousness was noted. As soon as an animal became unconscious it was injected intraperitoneally with methylene blue, and the time of recovery was noted. Recovery was reckoned by the ability of the rat to run straight forward, as the use of the hind legs was the function which was longest delayed. The injection consisted of 1cc. of 0.01 M solution in Ringerglucose solution for each 100 grams of bodyweight. The recovery of the rats which had been injected was very rapid compared with the controls.—*American Medicine.*



**The Male Hormone : The effect of the Male Hormone and the Anterior Pituitary.**—Casimir Funk and Benjamin Harrow. (*Am. J. Physiol.*, 101 : 218, July, 1932.)

The authors studied the effect of the injection of the anterior pituitary hormone and the male hormone upon the seminal vesicles of the young rat.

Rats around a month old were used and divided into four groups as follows :—

1. Controls ; 2, injected with the male hormone ; 3, injected with the anterior pituitary ; 4; injected both with the male hormone and the anterior pituitary combined ; each of these animals received a daily injection of 0.5 cc. of an extract of male hormone, and a twice daily injection of 0.3 cc. of the urine of pregnant women. From a number of experiments the authors have selected the following as typical examples :—

*A.* Control. Rat weighed 40 grams. At end of the experiment, the seminal vesicles were thin and glassy, 3.5 mm. long and 1.1 mm. wide. The ducts were thin.

*A'*. Control. Rat weighed 34 grams. The picture was similar to that of rat *A*. The seminal vesicles were 4 mm. long and 1.5 mm. wide.

*B.* Injected with male hormone. Rat weighed 35 grams. The seminal vesicles were not so thin and glassy as those of *A* and *A'* ; they were 6 mm. long to 2 mm. wide. The ducts were thin and grayish.

*C.* Injected with male hormone. Rat weighed 30 grams. The vesicles were of the same appearance as *B*, and they were 5 mm. long and 1.5 mm. wide.

*D.* Injected with anterior pituitary. Rat weighed 40 grams. The seminal vesicles were grey and thin, 7.5 mm. long up to 3.5 mm. wide. They were conical in shape. The average width was less than 3.5 mm.

*E.* Injected with anterior pituitary. Rat weighed 33 grams. The seminal vesicles were 8 mm. long and 2.5 mm. wide.

*F.* Injected with the male hormone and the anterior pituitary. Rat weighed 41 grams. The seminal vesicles looked quite different; they were much thicker, and not glassy but opaque, having the ordinary yellowish pink color of organs. The seminal vesicles were 8 mm. long and 3 mm. wide, and very thick and folded. The ducts were considerably thicker than in the other groups. (*A-E*).

*G.* Injected with the male hormone and the anterior pituitary. Rat weighed 35 grams. The seminal vesicles were 8.1 mm. long and 3.1 mm. wide being very thick as in *F.*

The controls showed extremely small seminal vesicles. There was little glandular development and hardly any secretion. The seminal vesicles of the animals injected with the male hormone were somewhat larger and they contained more secretion. Moore and others have shown that by injecting castrated rats with the male hormone, the development of castration changes in the seminal vesicles can be prevented. The seminal vesicles of the rats injected with the urine of pregnant women were somewhat larger and showed a little more secretion. Smith and Engel found that the genital system of immature male rats is less responsive to anterior pituitary transplants than female rates, and that where mature male rats are used, no effect on the genital system is observed. Collip, by using an anterior-pituitary-like hormone obtained from human placenta, and injecting it into rats, 18 to 24 days old, for a period of 10 to 50 days, observed appreciable increases in size of the seminal vesicles. Somewhat similar results were obtained with adult male rats, $2\frac{1}{2}$ to 8 months old.

Where the rats received both the male hormone and the urine of pregnant women the increase in size of the seminal vesicles was striking, there were many ramifications of the glandular structure, and much secretion. In comparison with the appearance of the seminal vesicles, the other organs did not show much. There was no spermatogenesis in any of the animals. The ductus deferens did not show a characteristic reaction. The number of mitotic figures in the spermatogenes increased with the increase in size of the seminal vesicles.—*The Journal of Organo Therapy.*

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**Get rid of your rheumatism!**—Millions and millions of people all over the world will take new hope when they hear that rheumatism can really be cured at last. Even the worst cases. Permanently cured. It sounds too good to be true. And the amazing thing is that the cure has been known and used with success for over two thousand years—in fact, for centuries before the birth of Christ. But as it was a homely method of treatment, without any scientific knowledge to support it, it was laughed at by the medical profession as a superstitious absurdity.

But many a popular belief of the ancient alchemists has of late been found to have a basis of truth. And so in this case. Even the ancient Greeks had noticed that people who keep bees



never suffer from rheumatism. That is, provided they were clumsy enough to get stung from time to time. Several of the Roman Emperors allowed themselves to be treated for rheumatism with bee-stings and got well again, though the doctors who prescribed this course must have been nothing less than heroes! But when modern medical science began to establish itself a couple of generations ago, it made a clean sweep of everything not based on orthodox teaching. And many a good old cure, whose practical value had been proved by centuries of use, was laughed out of existence.

Rheumatism, however, has become such a scourge to mankind that a society was formed some years ago in Germany-calling itself the Deutsche Gesellschaft fur Rheumabe kampfung (Society for the Fight against Rheumatism) to promote research aimed at finding a cure.

*And the result?* Science found its way back to the beehive. Investigation showed that the sting of the bee contains a certain poison that, in some way still unexplained, undoubtedly counteracts the causes of rheumatism, sciatica, neuralgia and other allied nervous disorders. After long research, this bee-sting poison was isolated. Then means were found of making it in the laboratory by a chemical process. The next step was to discover how it could be applied to the patient painlessly. This is now being done by the preparation of weak solutions of the poison and its injection under the skin of the sufferer with a hypodermic syringe.

So many persons have already been cured in Germany that no further doubt about the efficacy of the treatment is possible. There is no danger of any kind provided the injection is made by a doctor. The reason that this is necessary is that different persons are affected differently by the poison, just as in the case of any other drug-aspirin for instance. Where the patient is very sensitive, care must be taken not to inject too much at once. The solutions must be kept as weak as possible. A preliminary test is always desirable. The virus is obtainable in commerce in thin, glass phials, hermetically sealed. One injection usually contains as much poison as would be contained in sixty bee-stings! In cases of chronic rheumatism of long standing, it is sometimes necessary to repeat the treatment if the trouble returns. But in the end, the cure is complete and the pain banished for ever.

If you don't believe this story, ask any one who keeps bees!

—*Transocean Service Berlin (By Mail.)*

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**Importance of Proctoscopic Examination.**—Dr. M. H. Streicher (*Illinois Medical Journal*, May, 1932) believes with Bloodgood that every person over forty should be proctoscoped at least once every decade. Up to Feb. 1, 1932 Dr. Streicher has proctoscoped 4,016 cases. From this wealth of material, Professor Streicher emphasizes the enormously large number of primary and secondary G. C. rectums. In 85 cases of rectal carcinoma it is not surprising to note that bleeding for from six weeks to sixteen years was the most important symptom. All of these cases were repeatedly diagnosed as hemorrhoids. These were 172 cases of chronic ulcerated colitis.

Parasitic colitis is apparently on the decline, due—in Dr. Streicher's opinion—to improved food hygiene. 81 cases of anomalous colon are reported. When this anomaly occurs in the sigmoid or lower colon, proctoscopic examination reveals an obstruction in the mucosa a short distance from the external sphincter. It seems as though the bowel terminates blindly. Only the first maneuver may be accomplished freely. Any undue force may result in bleeding and perhaps perforation. In the three cases of Hirschprung's disease the proctoscopic view simulates the colon of pernicious anemia.

In his proctoscopic work Dr. Streicher uses no anesthesia. He prefers the knee chest position. For 36 hours previous to the examination the patient is kept on a clear liquid diet. The night before a warm soap suds enema is given as well as another the morning of the examination. Dr. Streicher believes very firmly in telling the patient exactly what is to happen. With the instrument lubricated with liquid petrolatum it is first passed inward and downward until the anal region is passed. The obturator should now be removed. The second maneuver consists in directing the protoscope upward and to the right. The third maneuver it should be directed downward and to the left. Dr. Streicher is absolutely opposed to use of the pneumatic tube because he considers that inflation distends the colon and changes its position. Also over-inflation often results in perforation of the colon.—*American Medicine*.

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# Correspondence.

**Messrs. Havero Trading Co. Ltd., Calcutta, writes to us as follows under date 12—9—33**:—The importers of the French antimalarial remedy Gametoxyl have lately issued an advertisement pamphlet giving the extract of a paper on antimalarial preparations by Dr. E. Charron, Paris. The author compares at the end of his paper Plasmoquine Co. with Gametoxyl, referring particularly to the time of treatment and the amount of medicament required for complete antimalarial treatment.

In his statement he mentions that the *daily dose* of Plasmoquine Co. amounts to 12—16 tablets of the drug and that the total amount of tablets required for a complete treatment lasting 6 weeks are 328 tablets.

Although the above dosage refers to our old discarded tablets containing 1/12 grain plasmoquine and 1.1/4 grain quinine sulphate, the dosage circularised among the physicians of British India is *decidedly dangerous*, and we would be greatly obliged if you would issue a warning in your esteemed journal not to use the dosage mentioned but to stick to the dosage recommended in the authentic medical literature and the official pamphlets of our firm, who hold themselves responsible for the dosage recommended by them only.

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# Book Reviews

**League of Nations, Health Organisation. Protective Measures against Dangers resulting from the use of Radium, Roentgen and Ultra-violet Rays.**—*By Professor Hermann Wintz*, M.D.PH.D., *Erlangen with the assistance of Privatdozent Walther Rump. Ph. D.* Series of League of Nations Publications. III Health, 1931 Price Sh. 3/

This publication is the outcome of the Health committee's recommendations to enquire into the possible dangers that may be entailed by the use of X-Rays.

Considering the importance that X-Rays, Radium, and Ultra violet rays have attained outside the medical field, it was found necessary to provide for protection against the harmful effects of these rays and to adopt measures to prevent such dangers amongst the workers in the field. The author has given in this book in a

descriptive way the possible sources of exposure to these rays in a working establishment, the dangers, and its prevention in a very practical manner. The whole subject is discussed under the following broad headings :—

(1) Protection from direct injuries by the rays,
(2) Protection from the accidents that may be caused by the generating plant.
(3) Protection from unhealthy conditions in working premises (hygienic measures).
(4) Protection from the dangers of fire or of Gas poisoning in the event of X-Ray films catching fire :

This is a publication that must find a place in big institutions where X-Radiation is used, specially in India, where it is still in the initial stages, and according to the reviewer's information, protections against these rays in working institutions has not been fully realised, nor given any serious attention to by the authorities concerned.

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**Quarterly Bulletin of the Health Organisation of the League of Nations,**— Annual Subscription 7/6. Post free. Single Copy 2/. On Sale at the Publishing Department of the League of Nations, Geneva.

*Vol. 1. No. 1. March, 1932:*—

This bulletin though a non official organ contains a resume of work done by the Health organisation of the League. This is published quarterly in English and French, simultaneously and will be found helpful in following up the proceedings of the League.

The volume under review Vol. 1. No. 1. March 1932 begins with the resolutions of the conference on immunisation against Diphtheria. It is an epitome of our knowledge on this subject and represents an international consensus of opinion on diphtheria.

The article on Medical Education in England by Sir George Newman lays stress on the importance of preventive medicine, besides containing a wealth of original ideas and views regarding the exercise of Medical profession.

Prof. R. Berri gives his impression on the supplies of milk of North American cities, after an extensive tour organised by the health organisation of the League of Nations (Aug. 1st-Sept. 13, 1931.)

Among the subjects of general interest, Tropical Pneumonia By R. Gautier, Former Directer of the Eastern Bureau of Health



organisation, Singapore contains all the advances made on the laboratories and clinical side on Pneumonia, and has been discussed fully from every aspect of the disease.

Analytical review of the anti Rabic treatment conducted in the various Pasteur institutes of the world is given by Lt. Col. Mckendric.

The ravages caused by the floods in Yangtse valley, the campaign against Epidemic diseases undertaken by the Chinese health authorities in close collaboration with the National Flood Relief commission and Health organisation are described vividly by the Director of the Health Section.

*Vol. 1. No. 2. June, 1932:*—

Medical Education in the German Reich, by Dr. C. Hamel, Dr. J. Jadassolum, C. Prausnitz, and Prof. M. Tante, being the second article of a series devoted to the study of the problems raised by medical training in European and overseas countries, has been well described and must be read by every one interested in Medical education.

A complete report of the commission on the fumigation of ships is given in the next few pages.

Dr. Ludwik Anigstene M.D. PH. D., of the University of Warsaw and a member of the malarial commission of the League of Nations gives his experiences and observations after a study tour in Siam, on malaria and Anophelines. The main factors which are responsible for the prevalence and severity of malaria in some parts of the country and its mildness or absence in other parts have been well emphasised and explained.

*Vol. 1. No. 3. Sept. 1932 :*—

Contains Professor Ronssy's report on the Medical Education in France, the third of the series devoted to the study of problems raised by medical training.

In France, the reform of medical studies has during recent years been the subject of various enquiries by the councils of the Faculties of medicine, by professional medical associations and even by student's associations. There is a general demand for a modification of the present system. This matter has been referred to the 'comseil superieur de Instruction publique,' who is the final authority on such matters in France.

The concluding chapter in this volume gives a detailed report on the working of the Health organisation for the period Jan. 1931—Sept. 1932. The commissions which met during 1931 and the first three quarters of 1932 are :—

(1) On Biological standardisation.
(2) Malaria.
(3) Opium.
(4) Fumigation of ships.
(5) Leprosy.
(6) Maternal welfare and the hygiene of Infants and children of pre school age.
(7) Control of Tuberculosis.
(8) European conference on Rural hygiene.
(9) Technical co-operation with certain Governments.
(10) International school of advanced health studies, and
(11) Service of Epidemiological Intelligence.

The Economic Depression and Public health occupies nearly 48 pages. This has been well studied on the strength of the available data. The object of this discussion would seem to give an outline of the present situation and to provide for a basis of discussion.

The whole question is discussed and studied under the following headings :—

(1) Mortality and Morbidity.
(2) Nutrition of the unemployed.
(3) Indications of a reaction of unemployment on Health.
(4) Psycological effects of unemployment.

A resume of the conference of experts for the standardization of certain methods in making dietary studies held in Rome on 2nd and 3rd Sep. 1932 is given.

Lastly we congratulate the health organisation of the League of Nations on the splendid service it is doing for the welfare of the world, and on its taking such important subjects for discussion on an international basis.

These Quarterly publications are sure to bring within reach of every body the work done by the organisation, while it helps not a little to make the League more widely known.

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**Practical Endocrinology :**—*By Henry R. Harrower*, M. D., Glendale, California : Pioneer Printing Co., Inc., 1931. Fabrikoid, pp. 704. $ 5·00.

The popularity and usefulness of this book is manifest by the issue of the Second Edition within the short time of six-months after the First Edition. This branch of medicine has made such vast advance during recent years, that a student of medicine and general practitioner must be well conversant with the subject to be abreast with the time. His work has been made easier by the author, who has made a life study of the subject and covered in this volume all the recent advances in Endocrine Physiology, Pathology and Therapeutics. The book is divided into five parts : In the first part, the principles of endocrine secretions and their relationships are discussed. In the next part, the internal secretion of the glands and the different organs of the body and their actions are described. The third part deals with endocrine diagnosis and in the fourth part, the endocrine therapeutics of different diseases are described at great length. In the end, it contains a useful appendix and an index. The book is very exhaustive, practical and complete. We highly recommend this book and insist that every practitioner and student must make a thorough study of the book, before he thinks he knows anything about this subject and every good library must find place for a volume of this kind.—K. L. N. R.

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**Diseases of the Eye :**—*By Andrew Rugg-Gunn*, M.B., F.R.C.S. Published by W. Heinemann, Ltd., London, 1933, pp. 188. Price 12/6-

This is a practitioners series, in which all that a general practitioner should know about diseases of the eye and their treatment are described. This is in no way a substitute for text-books like Porson's or Fuch's, which are essential for a detailed or specialistic study, but a necessary companion to the general practitioner for the diagnosis and treatment of certain selected diseases of the eye like conjunctivitis, corneal ulcers, iritis, glaucoma, etc. Descriptions of operation and prescription of glasses are purposely avoided, which come within the province of a specialist. We hope the General Practitioner will find it a very useful aid in his practice.—K. L. N. R.

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**Artificial Pneumothorax**:—*By L. S. T. Burrel*, M. A., M. D., F. R. C. P. Published by William Heinemann, Ltd., London. 1932, pp. 174. Price 12/6–

This is also one of the popular practitioners series, written mainly for the benefit of the General Practitioner, who wants to have an easy reference on recent developments. Artificial Pneumothorax is one of the recognised and useful treatment of Pulmonary Tuberculosis. In this booklet the author gives a description of the different apparatus, the technique of the operation, the indications for it and its effects on the being. It contains very useful and concise information on the subject and deserves a place in the book-shelves of every practitioner.—K. L. N. R.

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**Malaria**:—*By Elliot Fitzgibbon*, B.A., B.A.I. Published by the C. W. Daniel Company, London, 1932, pp. 100. Price 5/– net.

In this small book the author expounds what he calls the governing factor in malaria, namely the old telluric-maismal theory and the relation of malaria to the soil and the sub-soil water level. He critisizes the orthodox theory of etiology and treatment and says that malaria can cure itself without treatment and quinine may do more harm by the destruction of R. B. C. than good. He substantiates his arguments with examples and quotation from different sources. Though we may not agree with all what he says it is a proposition worth investigating.—K. L. N. R.

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**The Elements of Medical Treatment**.—*By Robert Hutchison*, M. D., F.R.C.P. Published by John Wright & Sons Ltd., Bristol. Second Edition. 1932, pp. 188. Price 5/– net.

This excellent book shall continue to be popular with medical students, house-surgeons and young practitioners, for its easy and simple presentation of the elements of therapeutics. This aspect of medicine is generally overlooked in the studies of a student and when he comes out of the College, he will be at a loss in the management of simple ailments or writing down a good prescription. In this the author describes the proper management and treatment of such simple conditions as fever, pain, insomnia constipation, diarrhoea, dyspepsia, etc. The prescription of drugs finds a prominent place in the book and the book contains some very good prescriptions. In this Second Edition many alterations and additions have been made and we hope it will continue to be useful to medical students and young practitioners.—K. L. N. R.

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**Difficult Children**:—**How to deal with them**:—*By Marcella Whitaker*, Published by Rider & Co., London: 1 *sh.*

This small but very valuable book deals with the problem of child-training and management. The child is very rightly considered as the father of the man; and as such the foundations of his future life are laid during the period of childhood. The formation of character, the cultivation of good habits, the promotion of noble sympathies and emotions are very successfully undertaken only when the child is in teens. Therefore the importance of a scientific, and rational understanding of child psychology, and a careful and expert training based thereon cannot be over estimated. Apparent inconsistencies, abnormalities and out-of-the-way dispositions of children are very often misconstrued by the uninitiated in the art and science of child training. How selfishness, peevishness, indolence, untruthfulness, jealousy and such other qualities in children are very rarely tackled in the proper manner by the average teacher and parent is very easily narrated in the course of the book. Threat of punishment is invariably the only remedy that readily suggests itself as a corrective to child's vagaries. But the author shows during the course of the book how a scientific and intelligent observation of the child, its movements, environments, aptitudes, etc., can solve all the apparently confusing problems of children. He also gives several practical illustrations from the common day things of child life to demonstrate the applicability of the study of child psychology for child training. Not only the parent and the teacher who are directly connected with the duty of child training but all others who are generally interested in child welfare will find the book extremely interesting, useful and instructive.

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**Medical Bulletin**:—A fortnightly Medical Journal published in Bombay. Annual subscription Rs. 5. Single copy As. 4.

This is another addition to the rapidly growing numbers of medical journalism in India and we heartily welcome its advent in our midst. The journal is issued fortnightly and it is indeed a bold step the Editors and Proprietors have taken. The get-up and printing leave nothing to be desired and we wish the journal a long and prosperous career.

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**Medical Digest.**—A monthly medical journal published in Bombay, Annual subscription, Inland Rs. 2-8-0, and Foreign *sh.* 6/.

There has been quite a crop of Medical Journals in Bombay recently and the 'Medical Digest' is the latest addition to it. We have perused a few numbers of this new contemporary of ours and find it to be a promising journal. The original articles are generally written by eminent doctors in Bombay and a few pages are devoted to 'digest' or extracts from other journals; Medico Politics and Medico-Legal topics are also dealt with. We welcome the Journal and wish it a long, useful and prosperous career.

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# Preparations & Inventions

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**Madary Pills**:—These pills are being prescribed for the last 12 years, as most effective and harmless remedy for Insanity, Excitability, Sleeplessness, Restlessness, Irritability, Insomnia, Delirium, Epilepsy, Confusions, Chorea, Neuralgia, etc., by the eminent physicians from all parts of the Country, and in the Hospitals, Nursing Homes and Dispensaries. Can be had of 'The Imperial Chemist Co., Bombay, 4.

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# Notice

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## THE COUNCIL OF THE INTERNATIONAL UNION AGAINST TUBERCULOSIS.

The annual meeting of the Council of the International Union against Tuberculosis, whose Chairman is Professor Nolen (Netherlands), was held in Paris, on Saturday July 22nd; delegates from fourteen countries attended this meeting. At 10 a. m., an administrative session took place at the Headquarters of the Union, 66-Boulevard St-Michel, Paris. It was decided that the Conference of the International Union would be held in Warsaw on the 4th, 5th and 6th September 1934 and that the three following subjects, selected from



a list of questions submitted by the various countries belonging to the Union, would be entered on the agenda:

**Biological subject**: *Biological variations of the tubercle virus*, opening report by Prof. Karwacki (Poland):

**Clinical subject**: *The various forms of osteo-articular tuberculosis and their treatment*, opening report by Prof. Putti (Italy);

**Social subject**: *The utilization of dispensaries for the treatment of tuberculous patients*, opening report by Prof. Leon Bernard (France).

Mr. John A. Kingsbury of the United States will give a lecture on "Methods in further control of tuberculosis. Report upon an experiment in a rural area characterised by a low tuberculosis rate". According to the plan followed at Oslo and at The Hague, ten speakers selected from different countries will be designated to open the discussion on each of the three main subjects.

The scientific session which took place at 3 p.m. was devoted to a report by Dr. Saenz on "Tuberculosis bacillaemia". The report was followed by a discussion in which Prof. Leon Bernard, Secretary General of the Union, Prof. Valtis (Greece), Prof. Bezancon (Paris), Prof. Yevrem Nedelkovitch (Yougoslavia) and others took part.

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## THE XTH ALL INDIA MEDICAL CONFERENCE, 1933.

The Xth All India Medical Conference will be held in Bombay in Christmas week of 1933.

Members of the Medical Profession are invited to attend the Conference and make it a success by personal attendance and reading papers of Medical interest. As it is not possible to send invitations to individuals, this general invitation through the public papers should be taken as personal invitations.

Further information can be available from Dr. D. D. Sathaye, General Secretary, 127, Girgaum Road, Bombay-4.

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## ALL-INDIA MEDICAL LICENTIATES' ASSOCIATION

### 26TH ANNUAL CONFERENCE, BOMBAY SESSION

### X'MAS WEEK 1933.

**Bulletin No. 2.**

The Secretary, Scientific Committee, appeals to all the members of the Profession, to send their contributions on any medical or allied subjects for the scientific section of the Conference, wherein such papers will be read and discussed under the Presidentship of specialists in each line. The subject to be dealt with, together with an abstract of the article should be sent to the Secretary, so as to reach him by the end of November 1933. The matter should not exceed 15 typed foolscap pages with double spacing. The contributions accepted shall be the sole property of the Association.

All correspondence on the subject should please be addressed to Dr. U. A. Rao, Secretary, Scientific Committee, Reception Committee Offices, 94, Girgaum Road, Bombay 4.

The Secretary, Exhibition Committee informs the various manufacturers and their representatives that the 11th Exhibition of Medical, Surgical and Sanitary goods will be held during the Conference session, under the auspices of the Association. As there will be only a limited number of stalls available, those who are interested in the Exhibition, are requested to write for full particulars, including plans and rates etc., to Dr. Joshi Mirajwala, Secretary Exhibition Committee, Reception Committee Offices, 94. Girgaum Road, Bombay 4.

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## ZEAL'S CLINICAL THERMOMETERS

Messrs. G. H. Zeal Ltd., 75 & 77, St John Street, London E. C. 1. whose advertisement is published on p. 1. are the manufacturers of the excellent Zeal's Clinical thermometers, which are wellknown and highly appreciated throughout the world. These thermometers are always tested in their laboratories before being issued to the market and therefore can be relied upon as safe, genuine and accurate. Full particulars can be had on application to the manufacturers.

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## AS OUR ADVERTISERS VIEW US

**Bengal Chemical & Pharmaceutical Works Ltd., Calcutta:**

"We regard your journal a valuable one as an advertisement medium."

**National Advertising Agency, Calcutta:**

"We have received satisfactory report from our constituents of the result of their advertising in the "Antiseptic."

**School of Chemical Technology, Calcutta:**

"Glad to say that I feel satisfied with the result of advertising in the "Antiseptic."

**Neasi Advertising Service, Bombay:**

"We have, a very high opinion of your publication and are always persuading our clients to use your columns."

**May & Baker (India) Ltd., Calcutta:**

"We get several enquiries as a result of our advertising in the "Antiseptic."

**Madan Trading Coy. Bombay:**

It gives us great pleasure to write that during our three months advertisements in your Journal we have obtained the best results with promising inquiries and orders from the Medical profession.

*We greatly appreciate your display work and printing which greatly help the advertiser.* From the numerous inquiries we confess that the paper has got the widest circulation through out India and is the best medium of advertise ments for the well-known Indian and Continental Drugs and medicines.

Further we have to add that a big sample stock of Santuben (T. B. Cure) which is being advertised in your paper was finished in no time which gives us reason to believe that the future is bright.

We wish your Journal and the controlling staff a greater success and prosperity.

**T. M. Thakore & Co., Bombay:—**

"We receive numerous enquiries for literature and samples, from different places. All these doctors make a reference of their having read our advertisement in "The Antiseptic."

This leads us to believe that your paper has wide circulation."



**Paragon Products (French Drugs Company) Bombay:—**

We appreciate the excellent manner in which our lay out has been adhered to.

**Messrs. Martin H. Smith Co., 150, Lapayetta St., New York.**

We find the results from our advertising in the Antiseptic very satisfactory.

*For advertisement rates &c. apply to:—*

**THE MANAGER, "THE ANTISEPTIC" 323, THAMBU CHETTY ST., G. T., MADRAS.**

Printed at the 'ANTISEPTIC PRESS' and Published by the Proprietor Dr. U. KRISHNA RAO, Madras.

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