

to maintain it day by day, beyond the usual reaction time of transfusions. These are just the cases who develop hyperpyrexia if atropine is given; I have noticed this effect in many cases.

Lastly, there are cases of cholera in which transfusion has to be abandoned owing to acute precordial distress. The percentage of these cases is very small, not more than 0.5 per cent. These cases should be treated on different lines but atropine has been found useful in them in combination with other methods of treatment.

So I always watch my cases for signs of (1) tympanitis, and (2) hyperpyrexia, for the first 24 hours before administering atropine. A systematic use of atropine from the beginning without studying the cases from the onset causes a mortality which could be reduced by a judicious selection. If there is repeated collapse beyond that temporary recovery after transfusion, with no tendency to rise of temperature, if there is no excretion of urine after 24 hours, if the respiratory rate assumes the rapid or heavy type (one of the early indications of uremia), atropine is always indicated. I have not been able, however, to observe an actual increase in the amount of urine as a result of the administration of atropine.

A Mirror of Hospital Practice.

NOTES ON ORIENTAL SORE.

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ONE hundred and forty-eight cases of oriental sore (cutaneous leishmaniasis) were reported in the medical records of the British Army for 1929. The following note on the treatment of two cases may therefore be of interest.

Mrs. B., the wife of a quartermaster-sergeant, consulted me on the morning of the 22nd February, 1931, in connection with "a rash on the hands." All the history she could give me was that three weeks previously "a small red irritable lump" had appeared on the back of each hand. She scratched it and later the backs of the hands became red and painful; as the use of Iodex had done no good she came to see me.

Condition when first seen.—The dorsum of each hand presented a dull, congested, and inflamed appearance, with several papules and pustules scattered about. The area involved extended from the metacarpo-phalangeal joint of the forefinger to that of the ring finger, and downwards as far as the level of the carpo-metacarpal line or, roughly speaking, practically the whole of the dorsal surface of the hands was involved. The left hand lesion presented a remarkably honeycombed appearance when cleaned, and the pustular openings showed up. Scrapings and "juice" examined from this lesion showed a heavy infection with *Leishmania tropica*, some free, but the majority in the endothelial cells, while numerous clumps of staphylococci were scattered about indicating a secondary infection. In addition to the lesions on the hands, I discovered one on each forearm and one on the right upper arm. These lesions were what one could call "pure," i.e., no

secondary infection had supervened, and they furthermore presented the typical picture of an oriental sore before it breaks down. Thus, each of these superficial ulcerated lesions was about an inch to $1\frac{1}{2}$ inches in diameter.

The margins were hard, raised, and indurated, with a congested discolouration spreading out into the surrounding skin from a quarter to half an inch all round. The central portion presented several papules, very friable and moderately painful and sensitive.

There was no lymphatic glandular enlargement. The patient had no idea of the order in which these several lesions appeared nor could she remember any constitutional disturbance. She was a healthy, well-developed woman of 33 years. At this time of the year sand-flies are not very common in Hyderabad (Sind) but a few are always present all the year round.

She distinctly remembers being "bitten by something on the hands." No scraping or juice examination was done from the right hand and right upper arm, but from the other three lesions (right and left forearms and left hand) microscopic examination revealed innumerable *Leishmania tropica*.

Treatment and progress.—The wounds were well cleaned with normal saline compresses and then a 2 per cent. sodium antimony tartrate ointment was applied, but as this caused a lot of irritation and pain the strength was reduced to 1 per cent. Into the sores on the forearms was also infiltrated $\frac{1}{4}$ grain emetine hydrochloride in 1 c.c. distilled water.

On examination three days later there was no marked change in any of the ulcers and in fact one of them (left forearm) appeared to have been irritated very much. The antimony and emetine treatment was, therefore, stopped, and I started on berberine sulphate. The strength used was $\frac{1}{4}$ gr. to 1 c.c. and this quantity was infiltrated into the lesions on the forearms, not forgetting the raised indurated margin, the wound first being cleaned with hydrogen peroxide and a double strength saline compress. The lesions on the hands and upper right arm were treated with saline compresses only.

In three days' time there was so great a change in the two ulcers treated with the berberine sulphate that the patient herself asked for this treatment on the hands. Scrapings examined from the two lesions on the forearms were negative to *Leishmania tropica*. The lesions on the two hands and the right upper arm were infiltrated with 2 c.c. of berberine sulphate solution. This injection caused a burning sensation which lasted four hours. The forearm lesions were thickly spread with boric powder.

In a week's time the change in the condition of all the lesions was most striking. There was practically only a discolouration of the skin left. The right hand alone showed a certain amount of moisture and inflammation and this disappeared in another two days.

Before concluding I must also mention another patient I had at the same time. This was a boy, 9 years of age, the son of an Indian officer of the Second Divisional Ammunition Column, Royal Artillery; he had recently arrived from Rawalpindi. He was infected on the right cheek and over the zygoma there was a circular, superficial ulcer with a raised and hard margin, about the size of an eight anna piece. The ulcer had a crust over it which, when removed, showed an unhealthy granular surface with half a dozen openings. Scrapings examined microscopically showed the protozoal parasites *Leishmania tropica* in the endothelial cells and also innumerable clumps of staphylococci.

On 6th March, 1931, I infiltrated this sore with 3 c.c. of 1 per cent. berberine sulphate solution. On the 12th of March all signs of an inflammatory process had gone and a small superficial healthy granulating surface was all that was present. Scrapings on this day were negative to *Leishmania tropica*.

The sore was liberally treated with boric powder and finally all that was visible on the 14th March, 1931, was discolouration of the skin.

Remarks.—I have so far treated in all nine patients for oriental sore, and have found the results obtained with berberine sulphate solution infiltration most favourable. The infiltration of the whole affected area, not forgetting the margins, must be done very thoroughly, and for this reason 1 c.c. of the solution is not sufficient.

In the December 1930 issue of the *Indian Medical Gazette* there is a very informative article on this same subject. The writer advocates a 3 c.c. infiltration of a 2 per cent. solution of berberine sulphate. Although I agree with the quantity he recommends, I am not in favour of a 2 per cent. solution being the recognised standard, for the simple reason that some patients complain of a severe burning sensation for many hours, and in such cases, if there were several sores to be injected in rotation, they would in all probability object to the treatment. On the other hand in some robust male patients I would not hesitate to use a 2 per cent. solution. If, however, 3 c.c. of a 1 per cent. solution brings about a cure without causing any inconvenience, is it necessary to increase the strength? In the case of a supervening pyogenic infection, the ulcer should be thoroughly cleaned with hydrogen peroxide and after the injection it should be thickly covered with boracic powder; the whole is then covered with sterile gauze and bandaged up for four days. I have never found any constitutional disturbance in any of my patients.

QUININE URETHANE IN A CASE OF HYDROCOELE.

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ON September 23rd, 1930, a man, aged 25, came to me to have his hydrocoele tapped, as he was afraid of operation. The hydrocoele, which was of a fairly big size and tense, measured 8 inches in length and 4 inches in diameter. It was of six months' duration.

With due aseptic precautions, it was tapped by means of a trocar and cannula and after the thin clear serous fluid was completely removed 2 c.c. of quinine urethane (P. D. & Co.) was introduced into the sac through the cannula by means of a 2 c.c. syringe. The cannula now being withdrawn, the fluid injected was driven to all the parts of the cavity by gentle massage.

After a week, the swelling had regained its original size and the fluid, which was clear, was removed. A week later when the patient saw me the hydrocoele had again attained three-quarters the original size.

This time, the fluid was withdrawn and another 2 c.c. of quinine urethane injected and he was advised to come to me after a week.

Now, when he came, hydrocoele fluid had collected to nearly half the original size. This fluid was withdrawn and from that day no further fluid has collected.

Remarks.—Knowing, as we do, the action of quinine urethane on the blood vessels, the non-recurrence of fluid might be due to the obliteration of the vessels that line the cavity of the tunica vaginalis. How far the treatment is successful and beneficial cannot be definitely

stated, as the treatment was carried out in only one case. Yet this treatment is worth trying, especially in those who are nervous of operations for radical cure, in those who are unable to abstain from their bread-earning work, and in those who cannot stand an anaesthetic, either on account of advanced age or other conditions in which general anaesthesia is contra-indicated.

A CASE OF HEMIPLEGIA COMPLICATING TYPHOID FEVER.

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HEMIPLEGIA is one of the rare complications of typhoid fever. Osler and McCrae in their "Modern Medicine," 3rd edition, do not give any actual figures. Tice, in his "Practice of Medicine," quotes 42 cases collected by Smithies of which six were fatal. Whatever the actual number of cases, cerebral lesions complicating typhoid are sufficiently uncommon to call for note.

A girl of fourteen years was admitted in a low and practically unconscious state on 13th November, 1930, to the medical wards of the District Headquarters Hospital, Tanjore. The only available history was of fifteen days continuous fever, starting after headache; the bowels were irregular. Five days prior to admission, when the patient was at stool she fainted and fell down, and it was noticed too that she had become paralytic on the right side of the body and face. She could not talk at first, later on she began to express her elementary wants.

On examination, the patient was found to be in a very low state. There was right-sided hemiplegia with paralysis of the face on the same side. The limbs were quite flaccid. On the right side the knee jerks were exaggerated. Babinski's sign was positive. Arm jerks and abdominal reflexes were absent. Reflexes were normal on the left side. Sensory changes could not be elicited, as the patient did not respond to questions. She would just put out her tongue, but could not talk. There were no cardiac murmurs.

On the day after admission, 14th November, 1930, the right leg and right arm began to get stiff. The right arm jerks were exaggerated.

On 15th November, 1930, the patient was taken home and is reported to have died soon afterwards.

Blood was sent for the Widal reaction on 14th November, 1930, and the report of the King Institute was:—

B. typhosus—Positive, 1 in 200.

B. paratyphosus A—Negative, 1 in 25.

B. paratyphosus B and C—Positive, 1 in 50.

There were no parasites in the blood smear. The urine contained a slight trace of albumin.

It is of interest to note that in two-thirds of the cases collected by Smithies the paralysis was right-sided with aphasia. Without autopsy one can only guess at the character of the causative lesion; haemorrhage, thrombosis, embolism, meningo-encephalitis, very rarely meningeal haemorrhage, have been reported. Tice remarks that from post-mortem records thrombosis appears to be the commonest lesion.

I am indebted to Lieut.-Col. A. P. G. Lorimer, I.M.S., the Superintendent of the Hospital, for his kind permission and encouragement to publish these notes.