references, no such cases appear to have been recorded. (*b*) The utter failure of phage treatment although started at the outset. (*c*) Special attention must be paid to the oral hygiene in all cases of acute infections.

[*Note.*—Kala-azar does not appear to have been excluded in this case.—EDITOR, *I. M. G.*]

PRONTOSIL IN ACUTE RHEUMATIC POLYARTHRITIS

By J. N. GHOSH, L.M.F.
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MRS. M., Hindu female, aged 22 years, four para, was delivered of a child on the 15th February, 1937. Placenta did not come out within an hour of the birth, so it was removed manually by the village *dai*. It was not adherent but was retained mainly in the vagina.

She developed fever on the fourth day after delivery. Uterus was tender, temperature 101°F. and pulse 124 per minute. She was put on quinine and ergot mixture and was watched. On the seventh day the maximum temperature was 102°F. and pulse 120. Lochia was normal. There was no pelvic pain. Uterine involution was normal. An injection of quinine 10 grains was given intramuscularly and was repeated on the tenth day. A simple alkaline mixture was prescribed. Fever continued. Bowels moved once a day.

On the 1st March, *i.e.*, fourteenth day of illness, the left knee joint was acutely inflamed and very painful and then gradually all the joints were affected. Temperature varied from 102°F. to 103°F. with a pulse rate of 140. Bowels moved once a day; tongue was coated. Patient complained of palpitation and pain all over the body. She could not move.

On the 3rd evening Dr. N. C. Ghosh of Chakdighi was consulted, who diagnosed the condition as acute streptococcal infection and advised the following line of treatment:—(*i*) Prontosil (Bayer's) 5 c.cm. intramuscularly, every day for three consecutive days, and then prontosil tablets three times a day for five days; (*ii*) digoxin—three tablets a day; (*iii*) salicylate mixture (20 grains with Peacock's bromide 1 dram thrice daily), and (*iv*) milk diet with glucose D (Glaxo).

Within twelve hours after the first injection of prontosil, the temperature came down to normal and the pulse to 120. The temperature did not rise again. Joint pains became less and subsided altogether after the third injection. Pulse came down to 96.

On the 12th the patient was much better. Pulse was 86. Digoxin and the mixture were continued one dose a day for a week.

She was examined again on the 20th March. Pulse had come down to 80. She was allowed her normal diet and was put on jeculin (Upjohn's). She is quite all right now.

I publish this case to draw the attention of other practitioners to the remarkable effect of prontosil in this case.

[*Note.*—The mixture (salicylates and bromides) might have also played some part in relieving the patient's symptoms.—EDITOR, *I. M. G.*]

A CASE OF LEAD ENCEPHALOPATHY

By MIN SEIN, M.B. (Cal.), M.R.C.P. (Lond.)
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Civil Surgeon, Toungoo, Burma

THE following case is perhaps worthy of record for its many interesting features :—

R. R., an Indian Sepoy, aged 27 years, was admitted into the Indian Wing on 20th July, 1933, on account of sudden blindness of both eyes. On 18th July he suffered from mild but persistent pain in both eyeballs. Vision was good and he played football the same evening. Next morning there was no pain and he did his normal duties. Towards the afternoon the pain recurred and he discovered that his eyesight had become weak. His dinner had to be brought to him by a comrade. He went to bed in that condition and on waking at about 3 a.m. found his vision had completely failed. His sole complaints on admission were loss of vision and pain in both eyes and over the right eyebrow, described as a mild aching pain.

He had seven years' service with a clean medical history sheet. He had no vaccination or inoculation since November 1932. He was feeling fit till the onset of the present illness. There was no history of venereal disease. He was a total abstainer, not addicted to any drug, and smoked sparingly. For about five months previous to admission he had been an assistant to the armourer and had been working with nitric and other acids.

Physical examination.—The patient's general condition was good. He had a peculiar staring expression. There was nothing abnormal in his general behaviour, speech, and mental condition. Vision was restricted to appreciation of strong light. The pupils were markedly dilated, the right more than the left, and were regular in outline. They reacted very sluggishly to strong light and even this was not sustained. There was no sign of inflammation of the conjunctivæ and the uveal tract. Ocular movements were free and there was no nystagmus. Ophthalmoscopic examination revealed marked papillœdema. The arteries appeared normal and there was no hæmorrhage or peri-vascular infiltration. All the other cranial nerves were normal. Sensation, motor power and sphincter control were normal. Ankle and knee jerks were elicited with great difficulty. There was no plantar response. Abdominal reflex was absent on the left side and feeble on the right lower quadrant. The gait was slow and uncertain as the patient had to feel his way about.

The patient was kept under observation in bed and given a bromide mixture. At about 6 p.m. the temperature was 103°F. and pulse 88 per minute. He had no complaint except the pain in the eyes. At 9 p.m. he vomited twice after a drink of soda water. When I saw him soon after this he complained of frontal and occipital headache. The neck appeared to be a little stiff and flexion caused an increase of headache. Passive and active movements of limbs were normal, Kernig's sign was absent. Abdominal reflex was absent on the left side and feeble on the right. Knee jerks could not be obtained but there was plantar flexor response. Condition of the eyes was the same. At 10 p.m. the temperature was 103.6°F. and pulse was 68 per minute and not very regular. The patient was constipated, so a soap enema was given with good result. Bearing in mind the possibility of an increased intracranial tension the following treatment was given. An enema of 6 ounces of 50 per cent hypertonic magnesium sulphate solution was administered twice during the night. The temperature, pulse and respiration were noted hourly. At midnight Major D. Panton, the medical officer on duty, saw the case with me and suggested the possibility of cerebral malaria and gave an intravenous injection of 6 grains quinine bihydrochloride in 10 ounces of water.

Next day the condition remained unchanged except that the temperature was lower, being steady at about 102°F. Lumbar puncture was done very cautiously but the cerebro-spinal fluid was clear and not under pressure. About 3 c.cm. were withdrawn for examination. A fairly complete laboratory examination was carried out with negative results. Blood pressure was 125/65 mm. Hg. for right upper arm and 115/60 mm. for left upper arm.

On 22nd July the condition remained practically unchanged but the temperature came down to 100°F. and stayed there. On 23rd July the temperature continued to fall; the general condition was better and vision had improved. The patient could distinguish movements of objects before his eyes and also persons at a distance of fifteen feet. The condition of pupils was the same. The temperature came down to normal

on the 24th July and till his discharge never rose again. Vision had improved markedly and the patient could count fingers from a distance of three to four feet. The pupils were smaller, the right being larger than the left, and both reacting to light and accommodation. The right disc had cleared up and the left was still a little full. Field of vision (rough test with moving white object) was good. The patient could not read printed words. From now on the improvement in vision was maintained and the pupils gradually assumed normal size till about 3rd August when the pupils were equal, reacted to light and accommodation and discs were normal and the vision had returned to normal. On the 26th July abdominal reflex was sluggish on the right side and absent on the left. On the 3rd August all reflexes were normal. On the 16th, the patient was sent to Major G. D. Malhoutra, an ophthalmic specialist. He reported that the eyesight, field of vision and fundus were all normal.

The patient was next seen by Major G. M. Fraser, a mental specialist, who found no abnormality in the nervous system.

The patient was under observation since his discharge from hospital but up to date (29th January, 1934) he appeared to be normal.

Laboratory examinations.—Blood culture was sterile. Widal reaction and agglutination against *B. melitensis* were negative. Wassermann and Kahn's tests were negative.

Total leucocytes—10,000 per c.mm., polymorphonuclears—62 per cent, lymphocytes—27 per cent, large mononuclears—10 per cent and eosinophils—1 per cent.

There were 10 cells per c.mm. of cerebro-spinal fluid; culture was sterile. Wassermann reaction was negative. Lange's colloidal gold reaction—1,000,000,000. Urine showed no abnormality.

Comment.—The above notes of the case were written in January 1934 when I was unable to decide on the ætiology of the condition. Whilst engaged in writing an article on lead poisoning I had occasion to search my notes for likely cases and it dawned upon me that it was likely that what the patient suffered from was an attack of lead encephalopathy with the greatest incidence upon the optic nerves as his duties entailed plumbing, soldering and handling of lead and other metals. The patient was employed for five months as an armourer's assistant. Unfortunately no chemical analysis of the urine was done. The symptoms of headache and double papillœdema with loss of vision made one suspicious of increased intracranial pressure due to cerebral tumour. The other symptoms such as the stiffness of neck, increasing headache, loss of abdominal reflexes with fever made one think of a possible inflammatory lesion. But normal pressure and clear cerebro-spinal fluid without increase of cells which was sterile on culture enabled one to exclude any inflammatory cause or intracranial tumour. According to Bramwell (1931) lead encephalopathy is decidedly uncommon. Bramwell quotes Leggs' figures for 1920-24 as 1.1 per cent in the male and 2.1 per cent in the female cases of lead poisoning. The pathological condition is believed by Aub and others (1909) to be a proliferative meningitis with slight changes in the brain. In the case quoted by Bramwell the symptoms were intense headache, vomiting, double vision, right internal strabismus, swollen right optic disc, loss of knee jerks and abdominal reflexes. The patient had taken diachylon as an abortifacient. That patient recovered completely.

Considering his occupation one could safely make a diagnosis of lead poisoning in the present case. Whilst the investigations were going on the ophthalmic and mental specialists thought that they could not exclude disseminated sclerosis.

Summary.—A case showing neurological symptoms is described. It is presumed from the patient's occupation that the symptoms were due to lead encephalopathy.

I must thank the Officer Commanding, British Military Hospital (Indian Wing), for permission to publish the case.

REFERENCES

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Bramwell, E. (1931). *Brit. Med. Journ.*, Vol. II, p. 87.

[*Note.*—The author's presumed diagnosis though suggestive is not unequivocal; rapid failure of vision in a young person with quick and complete recovery may be due to disseminated sclerosis, as suggested by the specialists, whereas there is no positive evidence of lead poisoning.—EDITOR, *I. M. G.*]

ORIENTAL SORE SIMULATING LEPROSY

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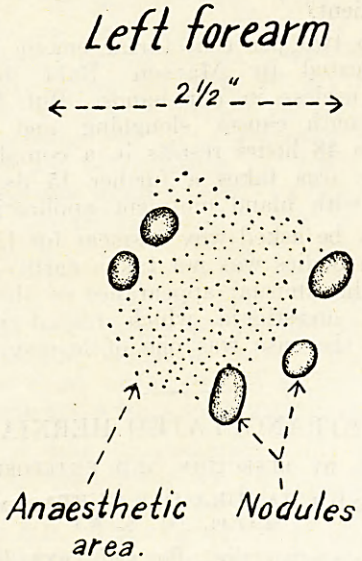
ON 18th August, 1936, I first saw a Brahmin woman with five nodules on the left arm and three on her right. The nodules were of a purple colour, smooth and about the size of a large pea; and on the left arm the area between the nodules was completely anæsthetic. The dots in the diagram represent the area of anæsthesia.



In view of this, further search was made for signs of leprosy. None being found, a skin clip was taken from the nodule and examined for leprosy bacilli. It was negative. Nevertheless, in view of the fact that