all the pains practically disappeared, and the patient was discharged on the 13th May, 1945.

My thanks are due to Dr. C. D. Newman, Chief Medical Officer, N.-W. Railway, for his kind permission to publish this note.

MALARIAL INFECTION IN THE NEW-BORN TRANSMITTED BY MOTHER*

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I HAVE read with interest the paper on 'Malarial infection in the new-born' by R. N. Verma, published in the October 1945 issue of the *Indian Medical Gazette*. The following case, which is in a way similar, is much more interesting from the fact that both the mother and child suffered from malaria simultaneously a few hours after delivery.

A Hindu woman, aged 24 years, primipara, gave birth to a male child; the delivery was normal. Next day the mother and child were reported to show shivering movements, but when I attended I found the mother and child quiet though with temperatures of 104.2°F. and 101.6°F. respectively. Information available from the mother and relatives was vague and contradictory. No definite diagnosis was made and palliative treatment was instituted. Forty-eight hours later, the mother had vomiting and nausea and a rigor, and the child was restless, shivering and crying. These symptoms ceased and the temperature of both mother and child rose. The mother showed splenic enlargement, the child did not. Careful enquiry elicited the fact that the mother had been having rigors and fever for a month before delivery. A clinical diagnosis of malaria in mother and child was made and quinine treatment was instituted. There was no more attack of fever. Both responded dramatically to quinine.

A CASE OF LUDWIG'S ANGINA FOLLOWING EPIDEMIC PAROTITIS TREATED WITH SULPHONAMIDE

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THIS severe secondary inflammation as a complication of mumps is a rare occurrence, and the patient's surprising recovery from a rapidly spreading cellulitis under chemotherapy was striking.

The patient, a male, aged 20 years, was admitted to the hospital on 27th October, 1945, with fever, dysphagia, pain and swelling beneath the chin in front of the neck, and stiffness and pain around the jaw.

History.—About a week before, he had fever preceded by chill and rigor, followed by pain, swelling and tenderness below and in front of both ears. He attended the outdoor dispensary; fomentation was given and ichthyol with belladonna and glycerine was painted over the affected parts, for three days. The inflammation subsided but the temperature persisted. On the 26th evening the patient noticed considerable swelling with pain and tenderness beneath the chin and in front of the neck, and swallowing became difficult.

On admission, temperature 101.2°F.; pulse 118; respiration 20 per minute; redness, swelling and tenderness over the sub-maxillary and sub-lingual regions and in front of the neck, extending up to the second intercostal space; gum and teeth healthy; root of tongue, tonsils and fauces slightly congested. That afternoon the temperature rose to 104.8°F., pulse 128, respiration 36 per minute; there was slight dyspnœa; the œdema increased and covered the whole front of the chest and the upper part of the abdomen; and the throat was a little more congested.

Treatment.—The patient was put in Fowler's position and given 5 c.cm. of 10 per cent soluseptasine intravenously. Cold compresses, and pituitrin and adrenalin were given for two days. A course of sulphonamide, 2 tablets every four hours, 4 doses on the first day, 5 doses on the second and 3 doses on the third day was started, followed by one tablet thrice daily for three days. Plenty of glucose water was given.

The next day the general condition improved much; the temperature came down to 97.2°F., pulse 110 and respiration 32 per minute; pain and tenderness were much less and the swelling subsided. Two days later, the temperature was normal, respiration 20, pulse 80 per minute, and the œdema almost subsided.

A CASE OF CHRONIC PEMPHIGUS

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A PATIENT, aged 50 years, had been suffering from chronic pemphigus for about a year when he was an in-patient in this hospital from 19th December, 1944, to 24th January, 1945. He was given treatment consisting mainly of twelve intramuscular injections of calcium and twelve of liver extract, glucose orally and calamine liniment locally, and was discharged apparently cured and free from any blisters. Two months later, he had a relapse and was admitted again on 16th May, 1945, with much more severe symptoms.

On admission.—Mouth septic; temperature 102°F.; pulse weak, 96 per minute; respiration 24 per minute; heart and lungs nothing abnormal; liver and spleen not palpable; the entire cutaneous surface covered with bullæ of various sizes, some crusted and some having burst and giving rise to large foul-smelling denuded areas; new eruptions were coming out everywhere including the healed areas.

Nothing particular in family history; clinical and laboratory findings, nothing abnormal.

Treatment.—He was now put on intramuscular injections of penicillin, 5,000 units every four hours up to 100,000 units and 10,000 units every three hours up to 200,000 units, making up a total of 300,000 units; also cardiazol and glucose by mouth. This covered a period of seven days, but did not produce any effect on the skin condition. Sulphathiazole, one gramme thrice daily, with daily injections of calcium and glucose produced no change in the temperature. Pituitrin ¼ c.cm. and adrenaline ½ c.cm. for four days were also ineffective. An irregular fever rising to 101°F. continued and new blisters were appearing in crops.

It was then decided to give a course of blood transfusions. The first transfusion was given on 31st May, 1945, but owing to a severe reaction only 30 c.cm. could be given. There were some signs of relief and a general sense of well-being; the patient also became mentally alert, but the temperature persisted. Calcium and glucose were continued.

Two weeks later, due to paucity of blood for transfusion, the patient was given intramuscular injections

* Paper condensed by the editor.

of liver extract, 1 c.cm. twice a week, and sulphadiazine 2 gm. daily for one week. Four days after the commencement of this treatment, the temperature gradually came down to 99°F.

At the second blood transfusion on 21st June, 1945, 300 c.cm. were given, but at the third given five days later, only 150 c.cm. could be given. The patient's general condition improved markedly, the denuded surfaces rapidly healed, and the appearance of fresh blisters was considerably reduced. Calcium and glucose injections were now stopped (after 35 injections). The temperature was normal on 12th July, 1945. At the fourth transfusion given two days later 500 c.cm. were given.

About ten days later, the temperature rose again to 101°F.; sulphadiazine, 2 gm. daily, was started and it subsided.

The fifth transfusion of 300 c.cm. was now given.

After about another ten days, the fever again rose to 101°F. A second course of penicillin, 20,000 units initially followed by 10,000 units every three hours up to a total of 500,000 units was given and the temperature was reduced. Later, a third course of penicillin, 10,000 units every four hours up to 400,000 units was also given.

Subsequently the sixth and seventh transfusions were given 250 and 300 c.cm. respectively. The patient was discharged on 21st September, 1945, about four months after admission, with no eruptions on his body and all the ulcers healed up.

Comments.—Cases of chronic pemphigus show periods of remission entirely independent of any treatment. The assessment of the results of any form of treatment is therefore very difficult. In this case the first attack subsided with little treatment. Regarding the relative value of the different forms of treatment given in the second attack it is difficult to express an opinion. Blood transfusion appears to have some effect and sulphadiazine a little, but there was no definite indication of response to penicillin. Relapses of course are probable.

A CASE OF INGUINAL GRANULOMA (*GRANULOMA INGUINALE TROPICUM*) IN BENGAL

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and

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(*Medical Mycology Enquiry, Indian Research Fund Association*)

A BENGALI youth, aged 21 years, was admitted to the Carmichael Hospital for Tropical Diseases for investigation of an ulcer in the groin of four years' duration.

History.—There was a history of exposure four years ago in the Howrah town. There was no penile sore at any time. About a week after the exposure he noticed, on both sides of the groin, small swellings, slightly painful. The swellings were superficial and the pain was not severe enough to interfere with his daily work. After about ten days, the swellings broke down to form small superficial ulcers, one on each side. The ulcers then began to spread laterally in the inguinal region along the folds of the groin. At this time the ulcers became slightly painful and there was a serous discharge. The patient tried various remedies but to no effect. The ulcers on both sides began to spread further, laterally and medially along the inguinal region, downwards towards the perineum and along the root of the scrotum, encircling the root of the penis on three sides. On the pubic region the two ulcers joined to form a broad ulcerated area.

Examination.—The general health was fairly good, and besides this ulceration he had no other complaints. The ulcer measured on each side about 4 inches long and 1 inch wide. In the middle of the pubic region it was about 2 inches wide and the spread towards the perineum was about 2½ inches downwards on each side. On the left side, the lateral spread was more than on the right. The ulcer was raised above the surface of the skin; the margins were irregular and overhanging the base. The surface looked like granulation tissue and was of a raw beef colour. The discharge was slight, and sero-purulent in nature with an offensive smell. Pain was present but not acute. The patient could not walk but limped with difficulty (*see* figure in plate X).

Laboratory findings.—Urine analysis—normal. Blood count—normal except a slight increase in polymorphonuclear neutrophils.

Skin reaction to Frei antigen—negative. W.R.—strongly positive.

Smear from the surface scraping showed a marked increase in monocytes which were full of short rod-shaped or oval bodies. (These bodies have been named 'Donovan bodies' but really these are *Klebsiella granulomatis*.)

Culture.—The surface was scraped, and fomentation with normal saline was given every 4 hours for 2 days; after 48 hours, a culture was made from the surface scrapings. Several tubes were inoculated and a pure growth of the organism was thus obtained. The primary culture on glucose-agar media showed small white sticky colonies. Subculture colonies were gelatinous in character, and would trickle down to the bottom of the tube. The organisms were oval or rod-shaped, enclosed in capsules and gram-negative and were identified as *Klebsiella granulomatis*.

Treatment.—As the W.R. was positive the patient was put on arsenic injections first. After three injections of N.A.B. there was no change in the ulcer. The patient was then given bismuth injection (Bismostab) 1 c.cm. intramuscularly once a week. To our utter surprise the ulcer began to heal rapidly. After 3 injections it was stopped for the experimental production of the lesions by inoculation of the culture of *Klebsiella granulomatis*.

Experiments.—Inoculation of the culture and also tissue material failed to produce any lesion in laboratory animals, *e.g.* guinea-pigs and white rats. An emulsion of the culture inoculated into the patient's thighs one on each side produced granulomatous lesions in a week. The patient absconded from the hospital before the organisms could be recovered from these artificial ulcers.

Although the artificial ulcers were produced by inoculation, the original ulcers went on healing.

Remarks.—The case is reported for the following reasons :

(1) Inguinal granuloma or granuloma inguinale (tropicum) is a tropical disease but its occurrence in Bengal is extremely rare, less than 1 in 20,000 of the skin cases seen here.

(2) The causative organism is the *Klebsiella granulomatis*. It was isolated from the lesions on more than one occasion and an inoculation of the organism produced typical lesions on the patient.

(3) Antimony is said to be the specific drug but in this case bismuth injections were having beneficial effects when the patient absconded from the hospital.