diameter, its walls thickened and rigid. Realizing the existence of an intussusception, I followed the small gut upwards and came upon the commencement of the lesion some twelve inches from the ileo-caecal valve. Attempts to "milk" back the intussuscepted bowel were ineffectual, and I therefore removed the appendix, enlarged the opening so left in the caecum, and with two fingers inside the caecum reduced the protruding gut through the ileo-caecal valve. It was only by patient and careful manipulation that this could be done, so tightly was the small bowel gripped by the valve. The whole of the intussusception was then, with comparative ease, reduced, and as the last portion emerged a Meckel's diverticulum turned itself inside out, resuming its normal position and appearance. The wound in the caecum was then closed.

The diverticulum was on the antimesenteric border, was short, and its lumen wide. On each side of it the bowel was ecchymosed and of very doubtful vitality. Within the lumen of the gut, at the level of the diverticulum, there could be felt a soft swelling. I removed six inches of ileum, including the diverticulum, performed a lateral anastomosis, and after fixing the mobile caecum in its normal position by catgut sutures, closed the abdomen without drainage.

Recovery was uneventful, and the patient left hospital three weeks later free from symptoms, the pregnancy continuing normally. The pathologist reported: "The intussusception consisted of a portion of bowel in a state of acute congestion and commencing gangrene from strangulation of the blood supply. It contained in its cavity a mass of breaking-down blood clot."

A CASE OF RAT-BITE FEVER.

BY

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RAT-BITE fever is not of common occurrence in this country, and the following case is so typical in character as to merit publication.

T. H., a boy aged 13 years, whilst on holiday in Devonshire was bitten on the left hand by a rat, on August 16th, 1922. The wound was not a severe one, and on the following day it was washed with carbolic lotion and dressed by a surgeon. It did not suppurate, and the doctor who saw the wound on August 23rd said it was doing well. It subsequently healed. About August 30th the wound was red and oedematous, and the temperature rose to 103° F. Two incisions were made near the wound, but no pus was found. During the following week the temperature rose again, but the boy was well enough to make a long journey to his home at Clevedon on September 7th. He was then seen by Dr. Hubert, who dressed the hand and found a little pus escaping. The wound healed rapidly, but from time to time until the date on which I saw him (October 11th) he

was subject to a rise of temperature varying between 102° and 104° F., coming on every three or four days, and lasting for two days. Each return of fever was accompanied by the appearance of a patchy erythematous rash all over the body. There was no lymphangitis. The scar was healthy, and not reddened. There were two small lymphatic glands palpable in the left axilla, and one in the left posterior triangle of the neck. The left hand was cyanosed. During the height of the fever there was a peculiar smell about the patient, reminding one of a hot wet dog. On one occasion there was a trace of albumin in the urine. He was brought to a nursing home under my care on October 12th, and 0.15 gram of novarsenobillon was injected intravenously on October 13th; further doses of 0.3 gram were given on October 19th and 26th, just before the rise of temperature might be expected. The fever which followed each of these injections was brief, and on the first two occasions only was accompanied by a rash which was of both an erythematous and urticarial character. The rash lasted for twelve hours. The blood was examined by Dr. Hadfield on October 14th. His report was as follows:

Red blood cells ... 4,100,000 per c.mm.
White blood cells ... 7,850
Haemoglobin ... 78 per cent."

There is no abnormality in the differential leucocyte count. The blood was examined by taking films and a thick drop. No parasites

were seen. There is, however, slight polychromatophilia. This and the anaemia are the only pathological findings.

The patient went home on October 19th and made a quick convalescence. There has been no return of fever. No parasite was found in the blood of this case, but it seems probable that the disease is identical with that seen in India, which is associated with a spirochaete discovered by Futaki in 1915 (*S. morsus muris*). The incubation period is usually two or three weeks. The initial wound heals normally in a few days, but later becomes swollen, painful, and red. Fever recurs every five or six days. The urine is increased in quantity, and contains albumin and casts. In India about 10 per cent. of untreated cases die. In any case convalescence is slow and there is emaciation and anaemia.

Memoranda :

MEDICAL, SURGICAL, OBSTETRICAL.

RINGWORM AND ITS TREATMENT.

ALL present methods of treating ringworm require prolonged supervision, and even x-ray treatment requires some three months. At the school clinics in Blackburn, in 1920, I experimented with various methods of treatment, and by the end of the year I began to get rapid results with the following method:

The hair is cut short, permitting a good examination of the whole surface, the affected parts are shaved, and then washed with ether soap, dried, and the following lotion applied: Calomel 5 grains, tinct. iodi (B.P.) 1 drachm; stir with glass rod—a reddish precipitate is formed. This lotion is poured upon small pieces of cotton-wool and applied to the ringworm area by gentle rubbing. The piece of wool is then discarded, clean white lint applied and bandaged. The child returns to the clinic the next day, the dressings are removed, the areas are washed well with ether soap, ammoniated mercury ointment (B.P.) applied, and a bandage again used. This process is continued until cure results, generally within fourteen days; the child is ready to return to school during the third week.

During 1921, 61 cases of ringworm of the hairy scalp, 2 involving the whole hairy scalp, forehead, and neck, were treated at the clinics by this method; the average number of days required for cure was eighteen. The shortest period was six days, the longest thirty-seven days; in this case two children at home were being treated for ringworm by the mother; this explained the fresh areas of ringworm on our patient's head which arose during treatment.

The calomel iodine lotion must be applied gently, and must be freshly prepared for each case. If rubbed in instead of gently daubed on, within a few hours' time the child suffers severe pain, due to a burn of the first or even second degree; in the first case a mild erythema, and in the second case erythema and small blisters, simulating erysipelas. I have only had three such cases, and those among my early cases. The best treatment of these early burns is to apply a mixture of olive oil 3 parts and castor oil 1 part. The lotion need be applied only once; it seems to penetrate and destroy the

parasites perhaps by the liberation of nascent iodine. The further treatment described keeps the surface clean and rubs out all loose hairs. In several cases a chronic scurfiness continued, but cleared up when the oil application was used. All the 61 cases mentioned have been kept under observation and in no case was there any recurrence.

As the lotion is very active, I considered it necessary to limit the surface of application by dividing the scalp into six equal areas. On the first day the whole scalp is washed with ether soap, and dried. To area 1 freshly prepared calomel iodine lotion is applied gently, and ammoniated mercury ointment rubbed into the remaining five-sixths; the head is then bandaged. On the second day the five-sixths part is washed with ether soap, and the lotion applied to another sixth part. The part to which the lotion was applied is then washed as a separate area, and ammoniated mercury ointment applied, and so on. On the seventh day the whole head is again treated as one area with ether soap wash, and ammoniated mercury ointment applied.

Ringworm of the body receives similar treatment, the child remaining at school, as the condition is cured within