CASE OF FATAL TRICHOCEPHALIASIS IN A CHILD.

BY

J. G. S. JAMIESON, M.D., AND J. M. LAUDER, M.B.Ch.B.,
LONDON. MOREBATTLE, N.B.

THE case now to be recorded was that of a girl aged 5. There was nothing of interest in the family history, and the child's previous history was free from illnesses of any importance. The patient's home and surroundings were in every way conducive to good health.

The mother stated that a year before the onset of her illness the girl was noticed on several occasions to eat earth from the roadside, but for several months at least before her illness began she was not observed to do so. In August, 1908, her mother noticed that she was not looking well; she vomited sometimes after breakfast, she was easily tired, felt sleepy, and was developing a rash on her legs, and looked bloodless.

When the child was brought to us on August 31st, 1908, she was a well-developed girl, with pale skin and mucous membranes, the face being almost lemon-tinted, and the sclerotics pearly. Many spots of purpura were found on the legs, body, and neck, and one or two in the mouth. There were several patches of greenish discoloration indicative of old ecchymoses. A soft systolic murmur was heard all over the cardiac area; the spleen, liver, and lymphic glands were not enlarged. There was no history of bleeding from mucous membranes, or haematuria, but there was a small quantity of albumen in the urine. There was no diarrhoea during the illness, or during the previous year; there was no history of the passage of worms, and the only symptoms pointing to intestinal irritation were occasional grinding of the teeth and complaints of abdominal discomfort. These symptoms were not urgent, and were recalled by the parents only after the illness. There were no fits.

On the chance that intestinal parasites might be the causal agent of what was obviously a grave anaemia, calomel and thymol were given, and the faeces were carefully examined. No worms were found, but multitudes of the characteristic eggs of *Trichocephalus dispar* were present. No blood was present. Three days after the first visit the blood count was: Reds 1,160,000, whites 30,000, haemoglobin 20 per cent.; colour index below 1. The film showed poikilocytosis, microcytes, megalocytes, normoblasts, megaloblasts, and polychromatic staining. The leucocytosis consisted in an increase of the lymphocytes, and, to a lesser extent, of the large mononuclear leucocytes. Myelocytes were present, including some "intermediate" myelocytes.

The child was obviously becoming weaker, and no extreme measures could be taken with a view to expulsion of the parasites, but another dose of thymol was given and the stools carefully examined. The result was, as before, no worms found, but many eggs of *Trichocephalus dispar*. A second blood count, three days after the first, showed reds 990,000, whites 19,000, and haemoglobin 15 per cent. Her weakness gradually increased; the temperature, which had been rising to 100°, now began to reach 102.5°; she complained of pains in her legs, and suffered from occasional rigors. On the day before death, the liver, formerly of normal size, was found to be enlarged, extending 2½ in. below the costal margin. The spleen was not enlarged. On the day of her death she vomited a mass of coagulated blood; she died in a comatose condition. No necropsy was permitted.

Trichocephalus dispar is usually described as a parasite "without medical interest" and innocuous, but cases similar to the above have been recorded in which it has been associated at least with severe anaemia. These cases stand in the same category as certain "pernicious anaemias" due to the presence of *Bothriocephalus latus*, which are in reality not primary but secondary anaemias. *T. dispar*, if present in large numbers, may be a most destructive agent, causing profound, and even fatal, anaemia. Unfortunately, in this case we were not permitted to examine the bowel *post mortem*, but the ova of the parasite were found in the faeces in very large numbers indeed, so that we are justified in concluding that this child's condition was due to the parasite.

The blood had the characters of a secondary rather than a primary anaemia, as witness the colour index and the decided leucocytosis. The presence of megaloblasts does not go against this statement, as these cells are found in severe secondary anaemias, especially in those resulting from intestinal parasites (Askanazy).

A case similar to the above was reported in the BRITISH MEDICAL JOURNAL, 1907, vol. ii, EPITOME. In contradistinction to that case, our patient had a history of previous good health with no diarrhoea, nor was there any diarrhoea during her illness. The rapidity of the illness

now recorded is noteworthy; the child was, apparently in good health in July, and died in September after two months' illness.

A case of this kind points to the necessity for examination of the stools in children suffering from anaemia of unknown cause.

Memoranda :

MEDICAL. SURGICAL. OBSTETRICAL.

ULCERATIVE ENDOCARDITIS IN A BABY WITH PYAEMIC ABSCESSSES: CURED BY DRAINAGE AND VACCINES.

THE patient, aged 4 months, was admitted with a fluctuating swelling over the inner aspect of the upper third of the left tibia and a temperature of 103.6°. This was said to have been caused by a blow from a cricket ball.

The swelling was explored, and proved to be a subcutaneous suppurating haematoma. The underlying periosteum was examined, and found healthy, so the wound was partly closed and a drainage tube inserted. A week later the baby was observed to be rather blue, and breathing rapidly. On examining the heart the left ventricle showed signs of dilatation, and on auscultation a murmur was heard over the mitral area. This had a distinctly musical character, and was conducted outwards.

A tentative diagnosis of ulcerative endocarditis was made. Three days later a puffy swelling appeared over the right sacro-iliac joint. This was explored, and pus was found in the joint, which was accordingly drained. The next day the right knee exhibited signs of distension. This was opened and drained; it contained a slightly turbid fluid. Some of this, and also a specimen of pus from the suppurating sacro-iliac joint, was removed for examination.

The *Staphylococcus pyogenes albus* was found in each of the preparations, and a vaccine was prepared from them. An initial dose of 2½ million was injected into the subcutaneous tissue of the abdomen. This was repeated once a week. On the day after the first injection albumen was found in the urine. A fortnight after the vaccine treatment was started the knee-joint had ceased to discharge, and the sacro-iliac joint was still discharging slightly. Three months after admission the baby was able to return home. The abscesses in the knee-joint had completely healed, the movement in the affected knee-joint was excellent, the heart appeared to be normal, and the albumen had for some time disappeared from the urine. During the last month the dose of vaccine was gradually decreased from 2½ million to ½ million.

This case is of considerable interest—partly from the extreme rarity of ulcerative endocarditis in an infant (hardly any other such cases having been reported), and also on account of the vaccine treatment curing a case in which the prognosis looked extremely bad.

I am much indebted to the staff of the Royal Surrey County Hospital, Guildford, for giving me a free hand in treatment of this case, and also for granting me leave to publish it.

ECHLIN S. MOLYNEUX, M.R.C.S., L.R.C.P.

Leamington.

SCARLATINA MALIGNA.

DR. ARNOLD GREGORY'S paper in the JOURNAL of July 23rd, giving an account of some cases of scarlatina maligna, recalls to my mind a very similar case which occurred in my practice many years ago, in which treatment by cold affusion saved the patient from imminent death. A young girl, after eating her dinner, was suddenly seized with sickness of stomach, green vomiting, and green stools. Headache and delirium rapidly followed, and she was going about the house "as if she was mad." Simultaneously with the sickness the nurse who was attending her brother during an attack of enteric fever stated that a