though possibly only accidental, coincidence is the fact that the mother's second child, a boy, was born with only one arm.

North Kensington, W.

THREE CASES OF JAUNDICE OCCURRING IN PERSONS SUFFERING FROM EXOPHTHALMIC GOITRE.

BY M. D. EDER, M.R.C.S. ENG., L.R.C.P. LOND.

THE three cases were seen in 1903 and 1904 but were not consecutive cases of exophthalmic goitre. I relate them on account of the interest attaching to the jaundice with which they were associated. I suppose this is sufficiently rare since it is not mentioned in the text-books most current in England; it is, however, noted by Professor Dieulafoy in his "Pathologie Interne" (1901). It is unnecessary to give more than the salient points.

CASE 1.—The patient, a woman, aged 38 years, in good circumstances, had suffered from exophthalmic goitre for three years. She came under my notice in January, 1904, for jaundice. Palpitation was extreme. There was no cardiac enlargement. The pulse-rate was from 120 to 150. The temperature was normal throughout. There was no abdominal pain; the stools were clay coloured. There was constipation. Bile was found in the urine. No gall-stones were passed at any time. A diagnosis of simple catarrhal jaundice was made. The jaundice disappeared in six weeks. I heard quite recently that there had been no recurrence and that otherwise the patient's condition was unchanged.

CASE 2.—This patient was a man who was first seen by me in April, 1904, for a rapidly enlarging thyroid gland. The cardiac symptoms were severe. Palpitation was extreme. I believed at times that I could make out some enlargement of the heart and on other occasions I was persuaded that there was none. The pulse was irregular in force and rhythm and was frequently uncountable. Some improvement ensued after some weeks' intermittent rest in bed—intermittent because the patient could not be persuaded to remain there. Whilst under treatment jaundice occurred. Bile was found in the urine and the stools were clay coloured. Diarrhoea with offensive stools was present. This symptom improved under treatment with benzo-naphthol and small doses of calomel. The cardiac symptoms remained unaltered. The diagnosis was catarrhal jaundice. From this condition recovery followed in from four to five weeks. This patient was subsequently treated at a London hospital with injections into the gland (presumably iodoform emulsion). I saw him after his discharge. The gland was much harder but there was no abatement of his sufferings.

CASE 3.—The patient, a woman, was seen in October, 1904, for jaundice. The exophthalmic goitre was of ten years' duration. The apex beat of the heart was in the fifth space outside the nipple line; there was a systolic murmur at the apex conducted to the axilla. There were no other cardiac signs. The pulse was 80 and regular in force and rhythm. There had been no colic but there was tenderness in the right hypogastric and in the epigastric regions. There was bile in the urine. The stools were clay coloured. I did not see the patient very constantly but was informed that she passed several gall-stones some three weeks later, the jaundice quite disappearing shortly afterwards. I again saw her at Christmas, 1905. There had been no recurrence of the jaundice. The cardiac condition was unchanged; there was no palpitation. The pulse was regular. The ocular and nervous symptoms of Graves's disease were well marked. Besides the gall-stones there were two interesting features in the case. 1. The patient carried on an arduous midwifery practice; indeed, I believe the disease was already present when she commenced her studies. 2. The absence of palpitation with the presence of a murmur and alteration in the position of the apex beat. There was no good evidence of a mitral lesion.

At the time I regarded the presence of jaundice in these cases as purely fortuitous. If, however, as has been suggested, exophthalmic goitre be due to some toxic condition with its seat of action in the pituitary body, the origin of the toxin may be found in the alimentary system. Common symptoms, possibly of similar origin, are glycosuria, diarrhoea, vomiting, and indigestion, whilst the Addisonian pigmentation, when present, is usually most marked in the

skin of the abdomen. On this assumption the jaundice in these three cases arising from some chronic toxæmia in the intestines would have a cause in common with that of the exophthalmic goitre.

Charlotte-street, W.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF PSEUDO-RENAL DROPSY IN A CHILD.

(Under the care of Dr. SAMUEL WEST.)

A MALE child, aged 20 months, was admitted into St. Bartholomew's Hospital with considerable anasarca. The appearance of the face and other parts of the body was so typical that examination of the urine was thought unnecessary but when it was examined on the day after admission no trace of albumin was found. Heat, acetic acid and ferrocyanide of potassium, citric acid, and some other tests alike gave negative results. The œdema was considerable and involved the whole body. The abdomen was distended but tympanitic and free from fluid. The liver was enlarged and reached one inch below the ribs in the right nipple line; the spleen could not be felt. All the other organs seemed healthy. The child was very pale and feeble. The history obtained was that the child had been in good health till a severe attack of measles a month previously, which had been followed by frequent and severe diarrhoea. This had made the child very weak. Ten days before admission the swelling of the face and body developed and rapidly reached a considerable degree. The child presented no other symptoms, had no diarrhoea after admission, took his milk well, and rapidly improved. The only medicine given was a diuretic and bath. In a week the œdema had completely disappeared from the legs and body and in a few days more from the face. It is interesting to note that it vanished from the face last. The blood was examined and showed a small leucocytosis due to a slight increase of lymphocytes, but the red blood cells numbered 4,000,000 per cubic millimetre so that there was no special anæmia.

Remarks by Dr. WEST.—This is an instance of a condition not altogether rare yet one which has in some way escaped the notice in books which its interest entitles it to. Little babies may not infrequently develop œdema when in a condition of profound cachexia. The œdema then is usually not of this type but such as is met with both in adults and children when anæmic. It is an œdema of what may be called the cardiac type, being most marked in the dependent parts of the body, the legs when up and in the buttocks and back when in bed. This kind of œdema is of serious prognosis, for it only develops in cases of profound cachexia which may be incurable and then the case ends fatally. If, however, the cachexia be cured the œdema will disappear.

The type of œdema described in the present case is entirely different and may be directly comparable with that met with in acute nephritis, which it exactly resembles in appearance and distribution. That it is not renal in origin is proved by the clinical history and course of the case and by the fact that in fatal cases the kidneys have been carefully examined and found to be free from all signs of inflammation. The cases occur only in babies and young children in association with extreme malnutrition or anæmia. I do not know of any quite similar condition in the adult. It may develop very rapidly and in a few days becomes extreme. The dropsy may involve the serous cavities as well but only in the worst cases. The urine is generally free from albumin of any kind or if it contains any it is a mere trace and rapidly disappears. The œdema sometimes after disappearing may return and then again disappear as the child convalesces.

The case reported has another point of special interest in

the fact that the œdema was the consequence of a severe attack of measles in a previously healthy child and was due to the malnutrition produced by severe diarrhoea which developed as a sequel and which was sufficient to produce the condition after only three weeks' illness.

The treatment is general and symptomatic, but of special drugs digitalis seems the best. The pathology of the condition is not any better known than is that of renal œdema, but I suppose admits of the same explanation—viz., a weakening of the capillary walls so that they permit the transudation of serum into the subcutaneous tissue, but this does not satisfactorily account for the fact that in most cases it is the subcutaneous tissue only that is affected.

The only book in which I have found this condition thought worthy of separate treatment is that of Holt. Henoch refers to a case of the kind and Pilatow describes a case of "anasarque sans albuminurie" in a boy, five years of age. This also followed troublesome diarrhoea and anasarca developed rapidly, but recovery was complete in three weeks. Eustace Smith refers to dropsy without albuminuria, as do the few writers who mention it at all, under the heading of nephritis. I have seen several instances similar to that described and did not realise until I looked up the literature of the subject that so little was written about it.

ROYAL DEVON AND EXETER HOSPITAL.

A CASE OF ACUTE LYMPHATIC LEUKÆMIA.

(Under the care of Dr. W. GORDON.)

FOR the notes of the case we are indebted to Dr. R. V. Solly, pathologist to the hospital.

The patient, a female, aged 13 years, an Italian, was seen by Dr. W. Gordon on March 9th, 1906, in consultation with Dr. J. A. W. Pereira of Exeter. She was then complaining of considerable pain in her left side (splenic region) and in the calves of both legs. The pain in the left side began on March 2nd and the pains in the legs three days later. Previously to the 2nd she had been quite well. She had been menstruating since the 5th and most excessively. She looked very anæmic and ill. Her gums were somewhat swollen and had bled a little but there was no ulceration or sign of septic stomatitis. The spleen was enlarged and acutely tender. The calves of the legs were also very tender. There were enlarged and tender glands on both sides of the neck, in both axillæ, and in the groins, some of those in the neck being as large as a small hazel-nut. Her temperature was 102° F. The microscope showed a very remarkable increase of white corpuscles and a stained film showed these to be almost wholly lymphocytes. She was admitted into the Royal Devon and Exeter Hospital on March 10th.

On admission the patient's state was found to be as above. The tongue was dry, rather coated with brownish fur; the gums were pale but were not bleeding. The spleen projected three and a half inches below the ribs and was three and a half inches broad just below the edge of the ribs. It was acutely tender. Liver dulness began at the sixth rib in the mammary line, and measured five and a quarter inches vertically. Its edge was tender. There was also a good deal of tenderness over the ribs in front of the chest and over the calves of the legs. The heart's apex beat was situated in the fifth space, almost a quarter of an inch external to the left mammary line. There was a reduplicated first sound but no bruits were present (position recumbent). No optic neuritis was present.

A blood count by Dr. Solly on March 11th gave the following result: hæmoglobin, 60 per cent.; red corpuscles, 2,912,000 per cubic millimetre; white corpuscles, 796,000 per cubic millimetre; colour index, about 1. Differential count of leucocytes: polymorphonuclear, 1.6 per cent., or 12,736 per cubic millimetre; small lymphocytes, 11 per cent., or 87,560 per cubic millimetre; large lymphocytes, 86 per cent., or 684,560 per cubic millimetre; and large mononuclears, 1.4 per cent., or 11,144 per cubic millimetre (large hyaline). No eosinophiles were seen. There were a very few normoblasts present. No mast cells were seen. The small lymphocytes were like those in normal blood, with very little protoplasm, the nucleus being large and taking the basic stain very deeply. The large lymphocytes were of about the size of a polymorphonuclear as a rule, but some were a little larger and others rather smaller. They consisted of a very large nucleus, taking the basic stain less strongly than the small lymphocytes, and around this nucleus generally a ragged narrow rim of protoplasm, more deeply

basophile than the nucleus, but in others it was impossible to differentiate any protoplasm around the nucleus. The large mononuclears were like those found in normal blood and consisted of a rather faintly staining nucleus, round or kidney shaped, and abundant clear non-granular protoplasm. The stain employed was Leishman's. On March 12th a second blood count was made by another observer who found: red corpuscles, 2,368,000 per cubic millimetre; and white corpuscles, 848,000 per cubic millimetre.

The treatment employed was increasing doses of arsenic and the application of the x rays daily for ten minutes over the spleen. On March 11th slight epistaxis occurred, the menstrual period continuing. On the 13th the spleen was found to be only two and a half inches below the ribs and measured only three inches across, the liver dulness remaining the same. Both kidneys were easily felt, seeming to be somewhat enlarged. There was slight albuminuria. The patient was now free from pain and appeared generally better. The tonsils were noted to be much enlarged. On the 15th she was in a very excitable state, continually whining, although she said she was in no pain. The period still continued and there was bleeding from the gums. From this point she gradually became worse and died comatose on the 16th, the whole duration of her illness only being 14 days.

Necropsy.—At the post-mortem examination (which took place 17 hours after death) the body was found to be very anæmic but not emaciated. On opening the thorax the thymus was seen to be persistent. It was about three and a half inches long and one inch broad. On the surface of the heart were petechiæ and the muscle was very pale. The clots in the cavities of the heart were of a greyish-purple colour. The valves were normal. The lungs were pale but crepitant. The spleen weighed 26 ounces; it was rather soft and ecchymosed at its upper part. The liver weighed 3 pounds 2 ounces and was rather pale, fatty, and soft. Both kidneys were very pale. There were many nodules of about the size of a pea, of a pale yellow colour, scattered through the substance of both kidneys. There was no enlargement of the solitary or agminated intestinal glands. The uterus was normal but contained clot. The bronchial and mediastinal lymphatic glands were enlarged, soft, and hæmorrhagic and the glands in the neck and lumbar region were also enlarged. There was a large hæmorrhage situated in the white substance of the right frontal lobe of the brain and a smaller one in the white substance of the left parietal lobe. These hæmorrhages were evidently the immediate cause of death. The bone marrow of the femur was red and hæmorrhagic.

Histological examination of organs.—The bone marrow consisted almost entirely of large and small lymphocytes. A few myelocytes were seen, a fair number of normoblasts, and a few giant cells. As regards the kidney a section through the white nodules gave an extraordinary appearance. There was an enormous infiltration of lymphocytes, closely crowded together, and among them were seen remnants of the urinary tubules with the protoplasm of the cells, granular and much swollen. The glomeruli exhibited many lymphocytes in their substance, but it was difficult to say whether these were infiltrations or simply within the vessels. The liver cells were granular and separated from one another by lymphocytes. In parts were seen small accumulations which were evidently infiltrations similar, though of microscopical size, to those in the kidneys. The Malpighian corpuscles of the spleen were difficult to define as the whole pulp was densely infiltrated with lymphocytes. The lymphatic glands were not markedly altered from normal. The thymus and the tonsils both consisted of a network packed with lymphocytes. The lymphocytes in all these organs were mostly rather small and stained deeply and consisted apparently entirely of nucleus with no demonstrable protoplasm, but there were also present larger cells with a small amount of protoplasm round the nucleus, both protoplasm and nucleus taking the basic stain.

Remarks by Dr. GORDON and Dr. SOLLY.—The interest of the case depends in the first place on its extremely rapid course, rapid even for this disease, its entire duration, so far as can be reasonably determined, being only 14 days. In the next place a definite though very brief improvement took place under x ray treatment. Byrom Bramwell¹ has reported a case of lymphatic leukaemia treated by the x rays where there was a fall from 300,000 leucocytes per cubic millimetre to 80,000. In spite

¹ Edinburgh Medico-Chirurgical Society, THE LANCET, May 20th 1905, p. 1340.