Medical Memoranda

Encephalomyelitis in a Case of Pink Disease

Although the symptoms and signs of pink disease are well known the cause is not yet established. Rocaz, however (*Pink Disease*, 1933, p. 129, supports the idea of an encephalitis due to a neurotropic virus. When it is considered that outbreaks of the disease take the form of individual cases scattered through any one area, the disease certainly does resemble poliomyelitis and polio-encephalitis in some respects. There is, however, little evidence of direct transmission from one child to another, and it is not usual for two members of a family to be affected. Another curious point to note is that the outbreaks are often limited to industrial areas, and occur among the children of the artisan class, although there is no observable relation to poverty. It is notable, too, that the disease only affects young children. The following case is interesting in that the necropsy supports the idea that an encephalomyelitic lesion was the cause of the symptoms and signs.

CASE REPORT

A child aged 1 year, one of a family of seven children, came from an industrial area; the father was a meter collector earning £2 18s. a week. The child had had infantile eczema for six months, and had been losing weight for the past fortnight. He had been breast-fed, but weaned on to cows' milk, gravy, potatoes, milk puddings, etc. Had been suffering from diarrhoea for two weeks, with green foul-smelling stools. Had a cough for a week; no vomiting. Also suffering from insomnia, and profuse sweating especially in the head region.

Condition on Admission.—The child was somewhat dehydrated, and showed great hypotonia of the muscles, with flaccidity and wasting. There was a rash, typical of pink disease, on the trunk, face, and legs. The child was irritable, scratching and rubbing the affected areas continually. The hands and feet were cold, pink, and shining. There was some desquamation. The general appearance suggested a case of pink disease of considerable severity and duration. Chest: poor resonance at both bases, with fine rales. Tongue furred. Abdomen retracted.

The illness ran through five weeks, with extreme asthenia and insomnia. Later the case gave a clinical picture of pink disease of a very severe type. Death took place from general debility and cardiac failure.

Post-mortem Examination.—Dr. William Susman reported as follows: Body extremely emaciated. Pericardium: complete absence of fat; is of a greyish colour due to toxins. Heart: myocardium, rather pale but firm; tricuspid valve, 1 finger; pulmonary valve, healthy; mitral valve, 1 finger, healthy; aortic valve, healthy. Right lung: posterior aspect of upper and lower lobe shows appreciable amount of haemorrhage. Left lung: posterior aspect of lower lobe has peripheral zone of haemorrhage about 2 cm. in depth which extends the whole length of the lobe. Microscopically a confluent bronchopneumonia. Air passages: some frothy mucus present. Alimentary passages: oesophagus, nothing abnormal; stomach, passive congestion; small intestine, nine agonal intussusceptions; large intestine, nothing abnormal. Liver, intense passive congestion. Gall-bladder healthy. Common bile duct patent. Pancreas congested. Spleen, nothing abnormal. Thyroid atrophied. Thymus very atrophic. Adrenals healthy. Right kidney and left kidney, fairly pronounced degree of passive congestion. Pia arachnoid acutely congested. Brain: grey matter throughout is acutely congested: in the basal nuclei the red appearance has a greyish mottled background; the grey matter of the pons and medulla is also acutely congested; the appearances are those of an acute encephalomyelitis.

The microscopical report was as follows: Abdominal sympathetic chains: there is some recent degeneration in the ganglion cells and in some nerves; surrounding muscle tissue that has been included in the section shows some scattered foci of subacute myositis. Cerebrum: there is a most intense and generalized acute congestion associated with a widely disseminated acute encephalomyelitis. The lesions are most pro-

nounced in the basal ganglia. The perivascular region of many arteries shows sclerosis and in some a pronounced degree of fibrosis. The cerebellum, pons, medulla, and spinal cord are similarly affected but to a lesser degree. Many nerves show parenchymatous degeneration.

COMMENT

The presence of a severe encephalomyelitis of a standing which corresponds to the duration of the illness due to pink disease is important as indicating the likelihood of a virus infection. The history of a gastro-intestinal infection is noteworthy, and in my experience is not uncommon.

C. PAGET LAPAGE, M.D., F.R.C.P.

St. Mary's Hospitals, Manchester.

An Unusual Sequel to Blood Transfusion

The following case, in which attacks of insanity followed blood transfusions, may be considered worth recording.

CASE HISTORY

A married woman aged 41, in *extremis* with extensive carcinoma of the cervix, was admitted to hospital for radium treatment under Mr. Ellis, by whose permission the case is submitted. Her subsequent pulse rate varied between 90 and 125, respirations between 24 and 31, and temperature between 98° and 102°, remaining normal for the whole week before her death from massive collapse of the lungs. Pyuria was present throughout. Sulphanilamide and iron were administered intermittently. Blood examination on admission—Group O (IV)—showed 22% haemoglobin, 1,800,000 red cells, 16,000 white cells, colour index 0.61, with anisocytosis and poikilocytosis. The blood urea was 43 mg. per 100 c.cm. Three days after admission she received by drip two pints of citrated Group O blood (one day old), with about half a pint of saline, over six hours. Her condition afterwards was good and no rigor occurred. During the next week abdominal discomfort became more pronounced, and a kaolin poultice was applied. The haemoglobin four days after transfusion was 42%. A projected cervical diathermy was abandoned ten days after transfusion on account of her poor condition. Sixteen days after the transfusion radium was inserted into the growth under evipan and omnopon anaesthesia. During the next fortnight her haemoglobin fell from 30% to 18%; her condition was then very bad and vomiting was frequent. A second blood transfusion, similar to the first, though the blood was a few days older, was then given. There was no rigor and she had a good night. Next evening the nursing staff, who had found her a most quiet and reasonable patient, without any sign of mental derangement, noted "strangeness in her manner." She was in a confused and restless state for the next three days, talking nonsense, trying to get out of bed and, at one time, remaining in a sitting posture, with arms katatonically extended before her, for half an hour. Her temperature at this time lay between 99° and 100°. She became mentally normal again within a week of this second transfusion and remained so till a third transfusion of three pints of citrated blood was given a fortnight later. A sharp rigor followed this transfusion, and she showed slight jaundice later, but had a good night. Next day she was again insane, and continued in a noisy delusional state (alléging, for instance, that she had swallowed several sets of dentures) for four days, after which she became and remained mentally normal till her death one month later. Necropsy revealed no cerebral abnormality. An organizing fibrinous general peritonitis was present, the fibrin being particularly thick on the under surface of the diaphragm. The pelvic contents were bound into a solid mass of inflammatory and carcinomatous tissue. No metastases more distant than the glands at the aortic bifurcation were found. There was unilateral hydronephrosis due to a nodule of growth in the right ureter. The blood urea post mortem was 69 mg. per 100 c.cm.

The most likely explanation of the two sudden and temporary attacks of madness, following blood transfusions, appears to be in terms of delirium due to low-grade peritonitis. But the precipitating effect of the transfusions in a patient at all other times mentally normal, was regarded as a (perhaps) previously unrecorded phenomenon.

GEOFFREY ROBINSON, M.B., B.Ch.,

Pathologist, Devonshire Royal Hospital, Buxton.