Intracranial tumour in an infant presenting as iron deficiency anaemia

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SHORT REPORTS

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Anaemia is common in patients with malignant neoplastic disease1 but is not generally recognised as a complication of brain tumours in the absence of vomiting or anorexia. We report the case of an infant who came to medical attention because of iron deficiency anaemia for which no cause was found until an intracranial neoplasm was diagnosed. The anaemia remained refractory to dietary iron supplements but resolved promptly after excision of the neoplasm.

Case report

The patient was admitted to hospital at the age of 10 months for investigation of anaemia. He was born of a full term normal delivery, smiled at 9 weeks, and sat unsupported at 6 months. Over the next four months, however, he became increasingly irritable and apathetic. The general practitioner noted anaemia, and comparison with previous records showed that he had not gained weight since the age of 7 months.

In hospital the child was found to be pale and miserable and his weight (9·4 kg) was just below the 50th centile. Head circumference was 49 cm with a rich capillary circulation. He underwent craniotomy with complete macroscopic removal of a fibrillary astrocytoma grade 3 weighing 550 g. The only detectable postoperative deficit was left homonymous hemianopia. Haemoglobin concentration began to rise after removal of the tumour and two weeks later was 12·8 g/dl. He underwent a course of radiotherapy, and at six months follow up haemoglobin concentration was 12 g/dl, mean cell volume 79·8 fl (79·μm²), mean cell haemoglobin 25·1 pg, and mean cell haemoglobin concentration 31·7 g/dl. At 2 years he was thriving and reaching milestones normally.

Comment

Anaemia is the most important haematological disorder in malignancy and, while chronic blood loss or infection may sometimes be identified, in up to 60% of cases no clear cause emerges. The incidence of microcytic hypochromic anaemia in one series of patients with malignant disease was only 3%, and its appearance in our patient was presumably due to sequestration of iron in a richly vascularised tumour undergoing central necrosis and representing (at the time of operation) 0·5% of the child’s weight and 60% of the expected brain weight. Other causes of anaemia had been excluded by thorough investigation, and formal dietary assessment confirmed adequate intake of iron and protein. The lack of response to iron for eight weeks and resolution of the anaemia after removal of the tumour strongly suggest a causal relation.

The paucity of specific clinical features of brain tumours in infants hampers early diagnosis in many instances2 and our case shows that anaemia may be one such presentation. This makes CT scanning mandatory when macrocrania is also present in a child with non-neurological symptoms.

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Localised visceral immunocytoma associated with serological findings suggesting systemic lupus erythematosus

Immunocytomas are tumours of plasmacytoid origin that have the ability to synthesise immunoglobulins.1 We describe two patients with the rare association of localised visceral immunocytoma, monoclonal gammopathy, and positive serological findings suggesting systemic lupus erythematosus.

Case reports

Case 1—A 50 year old woman was admitted because of prolonged fever. Eight years previously pancytopenia had been incidentally discovered, but physical examination at that time had been normal. She was followed up for two years, over which time her haemoglobin concentration was 11·13 g/dl, white cell count 2·2-3·6 X 10⁹/l (normal differential), and platelet count 7·5-120 X 10⁹/l. Electrophoresis of serum proteins yielded normal results, and serological tests for lupus erythematosus cells, antinuclear antibodies, and anti-DNA antibodies yielded negative results. She had remained