Cystic fibrosis and coeliac disease

Sir,

The coexistence of cystic fibrosis and coeliac disease has recently been reported (Hide and Burman, 1969; Goodchild, Nelson, and Anderson, 1973; Taylor and Sokol, 1973), and it has been suggested that cystic fibrosis may predispose to the later development of coeliac disease. The diagnosis of coeliac disease is largely dependent upon the demonstration of histological changes in the small intestine, but jejunal biopsy may be distressing to a small child. It is suggested that food protein antibody studies may be of value in the investigation of children with cystic fibrosis in whom gluten sensitivity is suspected. In the following case the decision to perform a jejunal biopsy was made when these studies were positive.

Case report. A 3-year-old girl presented in November 1972 with a history of 'wheezy bronchitis' from the age of 4 months. She had a cough with purulent sputum but her appetite was good and her stools were normal. On examination she had scattered crepitations and minimal finger clubbing. Staphylococcus aureus and Haemophilus influenzae were cultured from her sputum. Her sweat sodium was 101 mmol/l. and chloride 103 mmol/l., and the diagnosis of cystic fibrosis was made. Treatment was begun with pancreatic extracts, vitamin supplements, antibiotics, and physiotherapy. 7 months later during a relapse of her chest infection she was noted to have a moderately distended hypotonic abdomen, though gluteal atrophy was not evident.

Investigations. Hb 12.4 g/100 ml, WBC 11,800 mm³, normochromic, normocytic blood film, serum iron 87 mg/100 ml, TIBC 450 mg/100 ml, saturation 19%. Urea, electrolytes, liver function tests, calcium, phosphorus, and alkaline phosphatase were normal. Faecal fat excretion was increased at 8 g/24 hours. Immunoglobulins showed absent IgA with normal levels of IgM and IgG. Food protein antibody to cereal antigens, wheat, oatmeal, and gluten, and to ruminant antigens, cow's milk, and calf serum were persistently detected in the patient's blood. Jejunal biopsy showed partial villous atrophy with shortening, broadening, and branching of the villi. There was a satisfactory clinical improvement after gluten restriction.

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REFERENCES


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described by Heggarty et al. Furthermore, the increased urea production associated with hypernatraemia may suggest that enhanced gluconeogenesis is one of the underlying mechanisms responsible for the hyperglycaemia in hyperosmolar dehydration.

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