Correspondence

Combined cow's milk protein and gluten induced enteropathy

Sir, – Watt *et al* (*Gut* 1983; **24**: 165–70) present a very interesting patient with combined cow's milk protein and gluten induced enteropathy. We have been following a very similar case for eight years, which has already been reported in a local publication.¹

The patient, a girl, was referred to the hospital at 10 months of age, with symptoms of recurrent diarrhoea and low weight gain since the neonatal period. She had received anti-diarrhoeal drugs in an irregular way.

At 6 months of age she showed poor appetite and failure to thrive, and at 9 months abdominal distention and restlessness became evident. She had been fed a cow's milk formula since birth and gluten was introduced into the diet at the age of 2½ months. On admission a malabsorption syndrome was apparent and a jejunal biopsy showed a subtotal villous atrophy. Suspecting the coexistence of cow's milk protein and gluten induced enteropathy, as described by Visakorpi and Immonen,² a cow's milk free and gluten free diet was introduced. The patient became asymptomatic and thrived well. The jejunal biopsy performed 10 months later showed partial villous atrophy.

Cow's milk protein was reintroduced at the age of 23 months and four months later a jejunal biopsy still exhibited a subtotal villous atrophy. Suspecting that the patient's diet was not being adhered to we again emphasised to the family the importance of a strict gluten free diet. Five months later, however, the histological appearance of the jejunal mucosa remained unchanged, despite the mother's assurance that no gluten had been administered. Withdrawal of cow's milk produced a completely normal jejunal biopsy 19 months later. Four months later a new diet containing cow's milk again caused severe partial villous atrophy of the intestine.

To clarify whether the enteropathy was induced by cow's milk protein or by a lax gluten free diet, at the age of 5½ years a cow's milk challenge was carried out, taking jejunal biopsies both immediately before, and 24 hours after ingestion according to methodology previously described.³ We found that the jejunal biopsy changed from a normal histological picture to a severe partial villous atrophy. Milk was therefore withdrawn from the diet and six months later we confirmed histologically that the intestinal mucosa had returned to normal.

At this time a gluten challenge was carried out, producing six months later severe partial villous atrophy of the intestine. In view of these results we diagnosed combined cow's milk protein and gluten induced enteropathy. As in the case of Watt and his colleagues, our patient remained completely asymptomatic during all the dietary manipulations.

At 8½ years of age a similar cow's milk challenge was repeated and a normal jejunal biopsy was then observed both before and after the provocation test. On the basis of this finding we consider that the milk induced enteropathy had been of transient nature.

In our experience, the frequency of asymptomatic cow's milk induced enteropathy is 33%, as previously reported,³ and corroborated by a further, wider range study. We did not find evidence of an allergic origin for this enteropathy, so we believe it should be differentiated from cow's milk allergy.

Finally, we too raise the question of whether this enteropathy might produce long term sequelae, and for this reason we recommend a very careful follow up of these patients.

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- 2 Visakorpi JK, Immonen P. Intolerance to cow's milk and wheat gluten in the primary malabsorption syndrome in infancy. *Acta Paediatr Scand* 1967; **56**: 49–56.
- 3 Vitoria JC, Camarero C, Solaguren R, Aranjuelo M, Oliveros R, Navajas A, Rodriguez-Soriano J. Cow's milk protein-sensitive enteropathy. Clinical and histological results of the cow's milk provocation test. *Helv Paediatr Acta* 1979; **34**: 309–18.

Reply

Sir, – We were most interested to read the letter of Vitoria *et al*, and are grateful for the opportunity to reply. They describe a case of combined cow's milk protein and gluten induced enteropathy similar to that which we reported in *Gut* 1983; **24**: 165–70.

At first sight the major difference between the