Transient Gluten Intolerance

Sir,

As an addendum to a paper entitled 'Transient Gluten Intolerance' in the *Archives of Disease in Childhood* (1970, **45**, 523), the history of a child (P.G.), also stated to have had transient gluten intolerance, was briefly referred to. He had presented at 3½ years with diarrhoea and loss of weight and had a flat small intestinal mucosa on biopsy. He responded to a gluten-free diet. At the age of 7 years a second biopsy was normal. He was placed back on a normal diet and he remained well and a third biopsy after 6 months was normal.

He has been closely followed thereafter and now 1 year 10 months after his return to a normal diet he has had some return of diarrhoea and abdominal protuberance, though his growth and weight gain have been satisfactory. A fourth biopsy now reveals a flat mucosa once more, i.e. he did not have transient gluten intolerance and he in fact has coeliac disease.

As other observers have now reported (Shmerling, 1970; Rey, 1970; Hamilton and McNeill, 1971) it does appear that when gluten is reintroduced into the diet of children with coeliac disease, clinical and histological relapse may be very variable in its time of onset and may be long delayed. The cause of this variable response remains unexplained, but may be due to time taken to resensitize a potentially sensitive subject (Booth, 1970).

Professor Charlotte Anderson (1970) has stressed the importance of accurate initial diagnosis in patients with coeliac disease and the difficult problem in management presented by a child already on a gluten-free diet who has not previously been investigated properly. Experience with this child demonstrates the crucial need for close follow-up for a matter of years when such patients are reinvestigated.

The child who was the main subject of the paper referred to remains in robust health, 3 years 4 months since he was back on a normal diet. His present height and weight are both above the 90th centile. He does not, however, meet the criteria for transient gluten intolerance as laid down by the European Paediatric Gastroenterology Society in Interlaken (Meeuwisse, 1970) as he did not have a flat mucosa at the time of starting a gluten-free diet and his last normal biopsy after start of a gluten-free diet was 16 months later rather than 2 years as laid down in Interlaken. His parents are reluctant at present for him to have yet

another biopsy as he is now so well. Nevertheless, as this child had such a clear-cut response to gluten withdrawal from his diet and is now in such excellent health, the author continues to believe that he did have transient gluten intolerance as a sequel to salmonella enteritis.

It seems likely from our experience and the observations of the authors cited above, that the combination of a completely flat mucosa and a response to a gluten-free diet will prove in time nearly always to be associated with permanent intolerance to gluten. When severe mucosal damage, short of a completely flat mucosa (severe partial villous atrophy), has been a sequel to some disease process other than coeliac disease, e.g. gastroenteritis or malnutrition, it is probable that there is a depression of dipeptidase activity (Weijers *et al.*, 1971), and so the theoretical possibility of gluten intolerance on a transient basis in this situation exists. Thus I would like to suggest that the Interlaken criteria for transient gluten intolerance be modified as follows.

Transient gluten intolerance may be defined as the syndrome when a child with clinical evidence of small intestinal disease and an abnormal mucosa responds clinically to a gluten-free diet, but subsequently thrives on a normal diet, and after 2 years on such a diet is found to have a normal mucosa.

If the diagnosis of transient gluten intolerance is restricted to those with a flat mucosa on biopsy, there may prove to be very few, if any, of such cases.

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