Chronic urticaria and coeliac disease

We appreciated the paper by Levy et al published in this journal in June 2003.†

A number of the cases of chronic urticaria in children appear to be of unknown aetiology, and experiences such as the one reported by the authors indicate an autoimmune origin.

In our opinion, the model of association between thyroiditis and chronic urticaria may apply to the association between coeliac disease and chronic urticaria as well. Remarkably, Levy et al described a coeliac child with both chronic urticaria and autoimmune thyroiditis. In the literature, reports of at least four other cases of association between chronic urticaria and coeliac disease that improved after a gluten-free diet have been found, together with a report of a case of a coeliac 11 year old girl with chronic urticaria unresponsive to the diet.††

Our experience confirms that chronic urticaria may be associated with coeliac disease.

We tested 32 children and adolescents with idiopathic chronic urticaria for tissue transglutaminase antibodies. HLA typing was performed in 25 of these patients; 10 tested positive for the typical coeliac alopeity DQ2-DQ8. Three of 10 tested positive for IgG. None of the HLA negative children tested positive for IgG. In these three children a small bowel biopsy confirmed coeliac disease, and all showed an improvement or a resolution of the urticaria with a gluten-free diet.

Some evidence suggests that the duration of exposure to gluten in coeliac subjects is related to the risk of developing other autoimmune diseases.° The hypothesis is that in coeliac disease the decrease of the immunological stimulus with the diet may decrease the production of other autoantibodies. This could possibly explain the improvements described after the adoption of a gluten-free diet in subjects with subclinical coeliac disease associated with chronic urticaria.

Therefore, even if this association is rare, we think that it is important to extend the field of investigation in the area of autoimmunity, screening for coeliac disease all subjects affected by chronic urticaria of unknown origin. This recommendation is strengthened by the consideration that the diet for coeliac disease could help their urticaria to improve, and may prevent the development of other types of autoimmune disorders.

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References

Vitamin B-12 in Crohn’s disease patients with small bowel surgery

Vitamin B-12 is absorbed from the terminal ileum, which is a commonly affected segment of gut in Crohn’s disease. Its absorption may be compromised in these children secondary to inflammatory lesions, ileal bacterial overgrowth, or mucosal damage caused by reflux of bacteria and surgical resection.° Of these, surgical resection of large segments of terminal ileum is the main cause of B-12 malabsorption in the patients with Crohn’s disease and small bowel ileal resection is of great importance.

There is a paucity of published paediatric data on vitamin B-12 absorption after resection of the ileum in childhood. Valman and Roberts observed impaired absorption of vitamin B-12 in 7 of 10 infants and children who had resection of >45 cm of ileum.° Absorption was however normal in 2 of 10 children who had 15 cm or more terminal ileum remaining. Impaired B-12 absorption after significant (>60–180 cm) ileal resection may be permanent; however in children, adaptation of the remaining small bowel may result in restoration of its absorption several years after ileal resection.°

Our anecdotal experience and communication with other paediatric gastroenterologists in the UK suggested that there is no common management strategy regarding B12 supplementation after ileal resection. We, therefore, retrospectively examined in our own unit the impact of small bowel surgery on vitamin B-12 levels in 18 children with ileal resection secondary to Crohn’s disease over a period of 10 years. All patients except one had normal or low mean corpuscular volume and mean corpuscular concentration throughout their follow up before and after surgery. Median age at surgery was 15 years. Nine children had <30 cm of ileal resection and eight children 30–50 cm of terminal/distal ileum resected. Only one patient needed >70 cm of ileal resection. None of these children were observed to have low vitamin B-12 levels before or after small bowel surgery (for 1–8 years after surgery).

Our review of this small case series further highlights the significance of as yet unanswered question of vitamin B-12 supplementation in this group of children. As clinical and haematological B-12 deficiency may take several years to develop, serum B-12 levels alone may not be sufficient to decide about the need for its supplementation and regular formal B-12 absorption tests may be required. We feel that a large multicentre prospective cohort study is required to evaluate the need for regular monitoring of vitamin B-12 levels, its absorption tests, and the need for supplementation in children with Crohn’s disease needing small bowel surgery.

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CORRECTION

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We would like to apologise for a typing error in the paper by A M Weindling, which was published in the December 2003 issue (Arch Dis Child 2003;88:1034–37). In Box 2 the first sentence under the heading ‘Feet to foot; head uncovered’ should read: Babies should sleep in such a way that their head does not become covered during sleep.