SHORT REPORT

Unrecognised coeliac disease is common in healthcare students

S El-Hadi, D Tuthill, E Lewis, A Adisesh, M Moody, R Fifield, G Thomas, P E Williams, H R Jenkins

Arch Dis Child 2004;89:842. doi: 10.1136/adc.2003.041459

Unrecognised coeliac disease is common in healthcare students with a genetic risk for it. Children with transglutaminase (TTG) antibodies may be used to detect coeliac disease in children with a genetic risk for it. Children at high risk for coeliac disease include those with a family history of coeliac disease, autoimmune thyroid disease, insulin dependent diabetes, Down’s syndrome, and Noonan’s syndrome. Serological prevalence data from a number of studies have indicated that coeliac disease may be far more common in Europe and North Africa than previously thought. It seems likely that there is a similar under-reporting of coeliac disease in the UK, which may have important health consequences as dietary avoidance of gluten results in a complete remission of the disease and prevents the two major complications—malignancy and osteoporosis—as well as decreasing mortality in CD patients.

The aim of the study was to prospectively estimate the frequency of coeliac disease in a population of young adults enrolling as healthcare students at the University of Wales College of Medicine.

METHODS

All new healthcare students were informed of the prospective study at the time when they were already undergoing serological examination for hepatitis B vaccination status. They were advised that they could have serological examination for the possibility of coeliac disease with counselling by an adult gastroenterologist if these tests were positive. Written consent was obtained in all cases and the project approved by the local research ethics committee. Tissue transglutaminase (Orgentec ELISA), antigliadin antibody estimation (Pharmacia Cap), and total IgA level analyses were performed on all students. Those students with raised TTG antibodies (>15 IU) also had serological examination for antiendomysial antibodies by immunofluorescence and their TTG assays repeated on the same sample. Those with positive TTG values on two occasions were referred to an adult gastroenterologist.

RESULTS

One thousand healthcare students were tested between August 2000 and January 2002. All antigliadin antibodies were negative. TTG antibodies were raised on two occasions for 17 students. Of these, six had positive and 11 negative antiendomysial antibodies. Fifteen students agreed to endoscopy and biopsy, of whom six had classical histological findings of coeliac disease and nine had normal histology. Of the six students with biopsy proven coeliac disease, two had iron deficiency anaemia, five were asymptomatic, and one had non-specific abdominal pain.

DISCUSSION

In this prospective study we have found a high prevalence of unrecognised coeliac disease in healthcare students, with the incidence of biopsy proven coeliac disease at least 1 in 166 in this selected young adult population. This is 15–40 times higher than the estimate described in the current standard UK paediatric textbook of 1 in 2000–6000. It is clear that further epidemiological studies are urgently required in adults and children. Although the arguments for screening for it remain delicately balanced, we feel that targeted screening of selective high risk groups is justified for those with a family history of coeliac disease, autoimmune thyroid disease, insulin dependent diabetes, Down’s syndrome, and Noonan’s syndrome, as this may eliminate long term complications.

ACKNOWLEDGEMENTS

Dr Richard Fifield died during the completion of this study. The authors wish to acknowledge his contribution to a study which would not have been possible without his enthusiasm.

Authors’ affiliations

S El-Hadi, D Tuthill, R Fifield, H R Jenkins, Department of Child Health, University Hospital of Wales, Cardiff CF1 4XW, UK
E Lewis, A Adisesh, Department of Occupational Health, University Hospital of Wales, Cardiff CF1 4XW, UK
M Moody, P E Williams, Department of Immunology, University Hospital of Wales, Cardiff CF1 4XW
G Thomas, Department of Gastroenterology, University Hospital of Wales, Cardiff CF1 4XW, UK

Orgentec provided the ELISA kits for TTG analysis and Pharmacia provided those for antigliadin analysis.

Correspondence to: Dr S El-Hadi, Department of Child Health, University Hospital of Wales, Heath Park, Cardiff CF4 4XW, Wales, UK; sarahelhadi@msn.com

Accepted 21 November 2003

REFERENCES

Unrecognised coeliac disease is common in healthcare students

S El-Hadi, D Tuthill, E Lewis, A Adisesh, M Moody, R Fifield, G Thomas, P E Williams and H R Jenkins

Arch Dis Child 2004 89: 842
doi: 10.1136/adc.2003.041459

Updated information and services can be found at:
http://adc.bmj.com/content/89/9/842

These include:

References
This article cites 4 articles, 1 of which you can access for free at:
http://adc.bmj.com/content/89/9/842#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

- Metabolic disorders (761)
- Child health (3922)
- Adolescent health (329)
- Pathology (248)
- Clinical diagnostic tests (1133)
- Radiology (976)
- Surgery (307)
- Surgical diagnostic tests (291)
- Screening (epidemiology) (553)
- Screening (public health) (553)
- Diet (325)
- Research and publication ethics (120)
- Thyroid disease (88)
- Diabetes (339)
- Immunology (including allergy) (2018)
- Malnutrition (176)
- Drugs: infectious diseases (965)
- Epidemiologic studies (1818)
- Hepatitis and other GI infections (76)
- Journalology (262)
- Liver disease (180)
- Pain (neurology) (598)
- Rheumatology (521)
- Vaccination / immunisation (334)

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/