Celiac Disease and Abnormal Liver Function Test

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Letter to Editor

DEAR EDITOR,

Liver abnormality is one of the associated extra-intestinal manifestations with celiac disease (CD).[1] Accordingly, based on the high prevalence of CD in the normal population, an unintentional relationship between CD and the liver abnormality cannot be ruled out.[2-4] In the current issue of International Journal of Preventive Medicine, Emami *et al.*,[5] investigated whether routine serological screening for CD is valuable in patients with abnormal Liver function test (LFT) irrespective of clinical setting or not? For this reason 224 patients with abnormal LFT were evaluated by IgA anti-tissue transglutaminase (t-TG) antibody during 2003 to 2008. All seropositive patients underwent endoscopy followed by duodenal biopsy according to modified Marsh classification. Out of 224 patients, 10 (4.4%) were seropositive and D2 biopsy samples confirmed celiac disease in 6 (2.7%). All of these 6 patients had satisfying response to Gluten free diet (GFD). The results of this study suggested that routine serological screening for celiac disease should be performed in patients with abnormal LFT, especially in those with chronic liver diseases. There are controversial reports that patients with abnormal LFT are at increased risk of developing CD.[6,7] Some studies indicated that up to 9% of patients with elevated enzyme levels are infected with CD in the absence of other causes.[8]

Volta *et al.*, reported the prevalence of celiac disease in 55 patients with unexplained elevations of transaminases was 9%.[9] Transaminases were normalizing in four patients who were yielding with a GFD. Similarly, in the study by Bardella *et al.*, 140 patients were investigated. Thirteen were found to have positive serology for CD with prevalence of 9.2%[10] and transaminases was normalized in 12 patients after adherence to gluten-free diet.

In this study, the investigated celiac patients had other potential explanations for their abnormal liver test such as hypertransaminasemia, autoimmune hepatitis and cryptogenic cirrhosis. However, after carefully evaluation, they did not appear to play a significant role in the pathological process and, in fact, may be related to the CD itself.

The remarkable pitfall of this survey is that the authors considered only four PBC, 10 PSC and chronic hepatitis C, 22 chronic hepatitis B, and only four patients candidate for Liver transplant, therefore we cannot generalize their finding to all these groups because of low investigated sample size.

This study emphasizes that CD may be associated with abnormal LFT in the absence of other possible causes of liver dysfunction and it is required to investigate CD in patients with liver disease and no apparent etiology. As authors presented no sing and symptoms for this group of patients, we can conclude that lack of classic symptoms should not dismiss CD as a possible

etiology. Also, the study did not explain if any of these patients had symptoms or other laboratory markers suggesting celiac, however does add weight to screen patients with abnormal LFTs for coeliac disease. Furthermore, introduction of a GFD can improve and normalize the liver enzyme abnormality.

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