

THE DIAGNOSTIC VALUE OF SERUM IGG-ANTIGLIADIN, IGA ANTI-ENDOMYSIAL AND IGA ANTI-TISSUE TRANSGLUTAMINASE ANTIBODIES FOR PEDIATRIC CELIAC DISEASE

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Background and objective: Celiac disease is an autoimmune disorder, characterized by inflammation, villous atrophy, and crypt hyperplasia of the small bowel mucosa. In this study we considered and compared sensitivity and specificity of serological tests in patients with celiac disease.

Materials and methods: In this cross-sectional study we prospectively recruited children with suspected celiac disease. An intestinal biopsy specimen was obtained from all patients. Celiac disease diagnosed on the basis of histologic findings of Marsh classification. A serum sample was taken at the time of biopsy for serologic tests. Findings were analyzed using SPSS program, t-test, and chisquare tests.

Results: Out of a total of 134 children in this study, seventy (52.21%) patients were boy and sixty four (47.8%) patients were girl. Celiac disease was diagnosed in 14 (10.4%) of the patients.

In serologic tests, 11 patients (78.6%) were positive for antigliadin-Ab, 4 (28.6%) for anti tissue-transglutaminase Ab, and 9 (64.3%) for antiendomysial antibody. Sensitivity of antigliadin-Ab was 78.6% and its specificity was 95.9%. Sensitivity of anti tissue-transglutaminase Ab was 28% and its specificity was 95%. Sensitivity of antiendomysial Ab was 64% and its specificity was 96%.

Conclusion: Positive serologic tests are supportive of the diagnosis in those with characteristic histopathologic changes on small intestinal biopsy. The best tests for this purpose are the IgA antiendomysial antibody or IgA anti tissue-transglutaminase, both of which are highly sensitive and specific.