Abstract

Background/Objectives: the usefulness of duodenoscopic markers for predicting celiac disease (CD) has been questioned. We assessed the diagnostic efficacy of endoscopic markers of mucosal atrophy in individuals with different pretest probability of CD.

Methods: we prospectively performed endoscopic intestinal biopsies and CD-related serology tests in 661 individuals, including 143 consecutive patients attending a malabsorption clinic (high pretest probability) and 518 subjects randomly selected from those undergoing routine endoscopy because of upper GI symptoms (low pretest probability). Duodenoscopic markers reported were: mosaic pattern, scalloped folds, and reduction in number or loss of Kerkring’s folds. Results: sixty-three (44.1%) and 18 (3.5%) patients were diagnosed with CD in the high and low risk groups, respectively. Among high pretest subjects, the presence of any marker had very high sensitivity, specificity, positive predictive value, negative predictive value, and diagnostic accuracy for the identification of CD (92.1%, 93.8%, 92.1%, 93.8% and 93.0%, respectively). The performance of these parameters for the presence of any marker in the low pretest population were 61.1%, 96.8%, 40.7%, 98.6% and 95.6%, respectively. Sensitivity (p<0.004) and positive predictive value (p<0.0001) of markers were significantly higher for the high risk patients. The identification of a reduction in number or loss of Kerkring’s folds was not a reliable finding unless other signs were also present. Conclusions: we confirm that endoscopic markers are useful in predicting CD in different clinical scenarios. The high negative predictive value in the low probability group suggests that intestinal biopsy is not required if endoscopic markers are absent.

Keywords

Celiac disease, endoscopic markers, Malabsorption, diagnostic efficacy.