

Title: Comparison of screen- and symptom-detected celiac disease patients at diagnosis and during follow-up: a prospective cohort study.

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Abstract

Benefits of celiac disease (CD) screening especially among asymptomatic individuals remain unclear. We compared characteristics between adult patients with CD found by risk group screening and due to clinical symptoms in a prospective study. Clinical, serological and histological data, and bone mineral density (BMD) of 204 CD patients were assessed both at diagnosis and after one year on a gluten-free diet (GFD). Validated questionnaires were used to evaluate gastrointestinal symptoms (GSRS) and health-related quality of life (PGWB). Screen-detected patients (n=90) were more often men (49% vs 23%, $p<0.001$) and family members of CD patients (74% vs 29%, $p<0.001$), and had higher densities of intraepithelial lymphocytes on duodenal mucosa (median 51 vs 45 cells/100 epithelial cells, $p=0.020$), higher lumbar T-score (mean -0.6 vs -1.2 SD, $p=0.033$), less gastrointestinal symptoms (mean GSRS total score 1.9 vs 2.8, $p<0.001$), and better health-related quality of life (mean PGWB total score 108 vs 96, $p<0.001$) than clinically found patients (n=114) at diagnosis, whereas the groups were comparable in age, CD autoantibody levels and duodenal morphology. After one year, 98% of the screen-detected and 93% of the symptom-detected patients maintained a strict GFD ($p=0.115$), and serology, histological damage, BMD, gastrointestinal symptoms and quality of life improved significantly in both groups. As a conclusion, screen-detected CD patients had less severe symptoms and BMD impairment, and better quality of life than those found on clinical grounds. Both groups adhered to and benefited from GFD equally. These results support systematic screening of CD irrespective of clinical presentation.