Clinical picture

Capsule endoscopic celiac disease markers

A 62-year-old underweight woman (body mass index 16.4 kg/m²) was referred for small bowel capsule endoscopy for presumed occult gastrointestinal bleeding owing to iron-deficiency anemia (hemoglobin level, 8.6 g/dl; mean corpuscular volume, 72 fl; mean corpuscular hemoglobin, 20 pg; serum ferritin <15 μg/l). Previous outpatient upper and lower endoscopies had been considered inconspicuous. However, on wireless capsule endoscopy (M2A® videocapsule; Given Imaging, Yokneam, Israel), which provides a magnified view of the intestinal mucosa, a full ensemble of endoscopic celiac disease markers was uncovered: advanced mucosal atrophy as indicated by absent villous structures (Figure 1A), micronodularity and mosaic pattern (Figure 1B), as well as reduction (Figure 1C), scalloping (Figure 1D) and stacking (Figure 1E) of circular folds. Visible enteropathy was limited to the small intestine’s proximal third without evidence for potential complications such as ulcerative jejunitis or T-cell lymphoma.

A formal diagnosis of oligosymptomatic celiac disease was established by subsequent duodenal histology consistent with ‘Marsh’ stage III and markedly raised immunoglobulin A anti-tissue transglutaminase antibodies (18.934 U/ml, normal <20). After gluten withdrawal, the patient started gaining weight and malabsorptive iron deficiency improved.

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Figure 1. Capsule endoscopic view of the proximal small bowel showing absent villous structures (A), micronodularity with mosaic pattern (B) as well as reduction (C), scalloping (D) and stacking (E) of circular folds.