

A 65-year-old woman, who had been diagnosed with celiac sprue, presented with chronic diarrhea, fatigue, anorexia, and impaired night vision despite following a strict gluten-free diet. Diarrhea began 10 years earlier, around the time she underwent hysterectomy followed by pelvic radiation for endometrial cancer. Five years later, celiac sprue was diagnosed based on a positive gliadin IgG antibody and small-bowel biopsies revealing villous atrophy, crypt hyperplasia, and increased intraepithelial lymphocytes.

The patient's persistent symptoms, despite a 5-year gluten-free diet, prompted further evaluation. On physical exam she was a comfortable, well-developed, thin white female (body mass index [BMI] 17.2). She exhibited bitemporal wasting, and rectal exam was trace heme positive. Repeat gliadin antibodies revealed a positive IgG (106; < 20 negative) and negative IgA. Tissue transglutaminase IgG and IgA, and endomysial IgA, were negative. Serum IgA was normal. Human leukocyte antigen (HLA)-DQ2 and HLA-DQ8 were negative. Upper endoscopy revealed mild scalloping and duodenal nodularity. Small-bowel biopsies were consistent with celiac sprue with villous blunting and numerous intraepithelial lymphocytes (Figure 1). Wireless capsule endoscopy confirmed scalloping and nodularity in the proximal small bowel (Video 1). The distal small bowel (Video 2) was notable for marked edema, erythema, and neovascularization. A colonoscopy to the cecum demonstrated minimal right colon and rectal telangiectasias. A diagnosis of radiation enteritis was established.

Celiac sprue was originally diagnosed based on small-bowel histology that was characteristic, but not specific, for this disease [1]. The patient also had a positive gliadin IgG antibody, which is the least specific of the celiac antibodies (sensitivity 80%, specificity 80%) [2]. Upon re-evaluation, the combined result of negative serological findings and absence of HLA-DQ2 or HLA-DQ8 was approximately

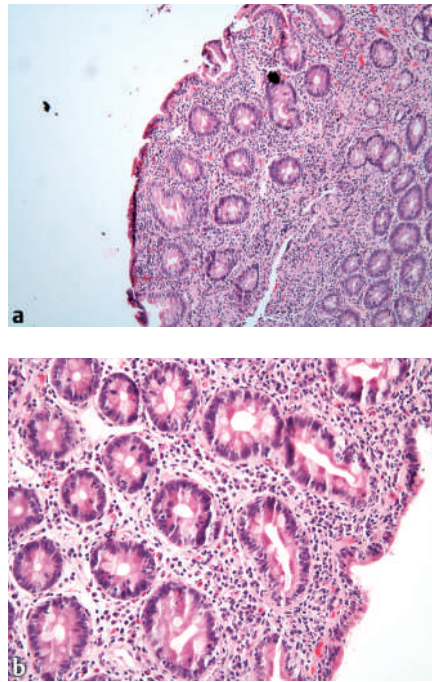


Figure 1 Histological appearance of duodenal biopsy specimen. **a** Marked blunting of the villi is seen (hematoxylin and eosin [H&E] stain;  $\times 10$ ) and, **b** an increased number of intraepithelial lymphocytes in the crypts and surface epithelium (H&E stain;  $\times 20$ ).

98% specific for excluding celiac sprue [3, 4].

The new technology of wireless capsule endoscopy was crucial in establishing an accurate diagnosis of radiation enteritis, a disorder that can be similar to celiac sprue in both clinical and histological presentation.

Endoscopy\_UCTN\_Code\_CCL\_1AC\_2AZ  
Endoscopy\_UCTN\_Code\_CCL\_1AC\_2AD  
Endoscopy\_UCTN\_Code\_TTT\_1AP\_2AB

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## Video 1

Proximal jejunum: scalloping and nodularity.

## Video 2

Ileum: features consistent with radiation enteritis – edema, erythema, and neo-vascularisation.

**online content including video sequences viewable at:**

[www.thieme-connect.de/ejournals/abstract/endoscopy/doi/10.1055/s-2006-944715](http://www.thieme-connect.de/ejournals/abstract/endoscopy/doi/10.1055/s-2006-944715)

DOI: 10.1055/s-2006-944715