

Whipple's Disease: Magnification Endoscopy and Histological Characteristics

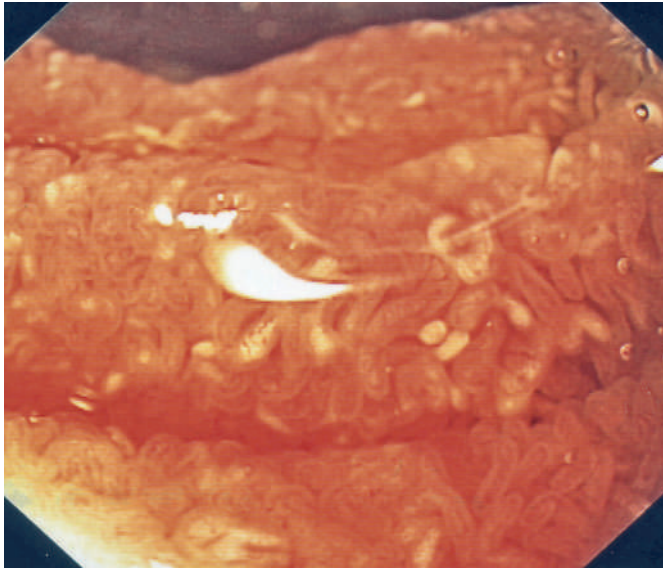


Figure 1 A 51-year-old man presented with polyarthralgia and weight loss of 35 kg over an 18-month period. He had also developed mental status changes. Computed tomography demonstrated intracerebral abscesses. On esophagogastroduodenoscopy, the duodenal mucosa showed nonspecific duodenitis. The mucosa was slightly erythematous and edematous. Using magnification endoscopy (Olympus, Hamburg; original magnification $\times 115$), the duodenal villi were clearly evaluated. These appeared edematous and slightly flattened, with multiple yellow spots representing engorged lymphatic vessels.

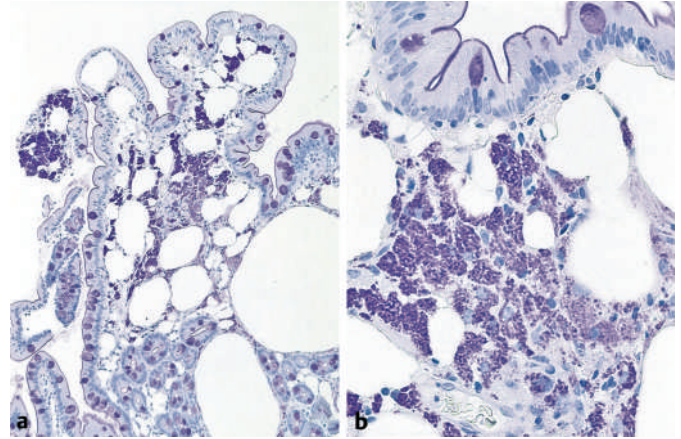


Figure 2 a, b The duodenal biopsy specimens showed that the intestinal villi were distended due to the presence of "foamy" macrophages with intracellular granules. These cytoplasmic granules are clumps of *Tropheryma whippelii* and their degradation products. Due to the presence of intracellular bacteria, the cytoplasm of the lamina propria macrophages appears coarse and granular and stains a brilliant magenta color on periodic acid-Schiff (PAS) staining. A positive PAS test results from the staining of the bacterial cell wall components. The patient was treated for 2 weeks with intravenous ceftriaxone, followed by trimethoprim sulfamethoxazole. This had to be changed to doxycycline due to an allergic reaction to sulfa.

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