



# Olmesartan-Induced Enteropathy with Associated Anti-Enterocyte Antibody

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## CASE PRESENTATION

A 74-year-old female presented with a seven month history of progressive weight loss, diarrhea, nausea, and vomiting.

- Stool osmotic gap of 42 consistent with secretory diarrhea.
- Celiac serologies were negative.
- Cross-sectional imaging revealed inflammation of the stomach and duodenum.
- EGD showed esophageal necrosis, active gastritis, and severe atrophy with scalloping in the duodenum (Figure 1).
- Olmesartan was held and IV PPI administered for esophageal necrosis
- Symptoms progressed over the following four weeks.
- EGD repeated with duodenal biopsy showing chronic duodenitis, villous blunting, and scattered apoptotic epithelial cells compatible with Olmesartan-induced injury (Figure 2). IV steroids were started.
- Indirect immunofluorescence demonstrated IgG linear staining of apical membranes indicative of circulating anti-enterocyte antibodies.
- Symptoms persisted and the patient declined immunosuppressive agents or total parental nutrition. She was discharged home on a steroid taper.
- Four months after discharge, she reported complete resolution of symptoms while on Budesonide and significant weight gain.

## PATHOLOGY FINDINGS

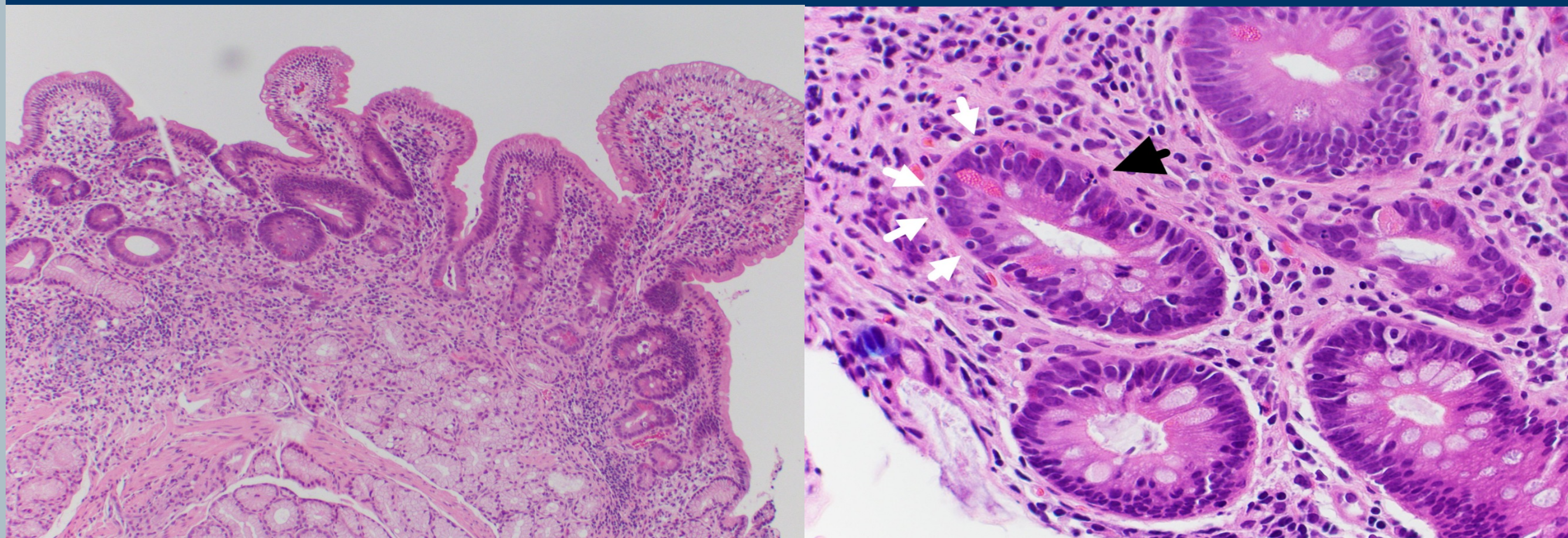


Figure 2. Panel A - The duodenal mucosa showed mild to moderate villus blunting and widening by an increased chronic inflammatory infiltrate in the lamina propria. (Hematoxylin & eosin stain, 100x original magnification). Panel B - There were scattered epithelial apoptotic bodies in the crypts (black arrow) and focal increase in intraepithelial lymphocytes (white arrows). (Hematoxylin & eosin stain, 400x original magnification).

**Olmesartan-induced enteropathy (OIE) is hypothesized to involve an immune-mediated response and direct damage of intestinal epithelial cells.**

**OIE and autoimmune enteropathy contain many overlapping features.**

**We describe a case of severe OIE with associated positive anti-enterocyte antibody.**

## ENDOSCOPIC FINDINGS

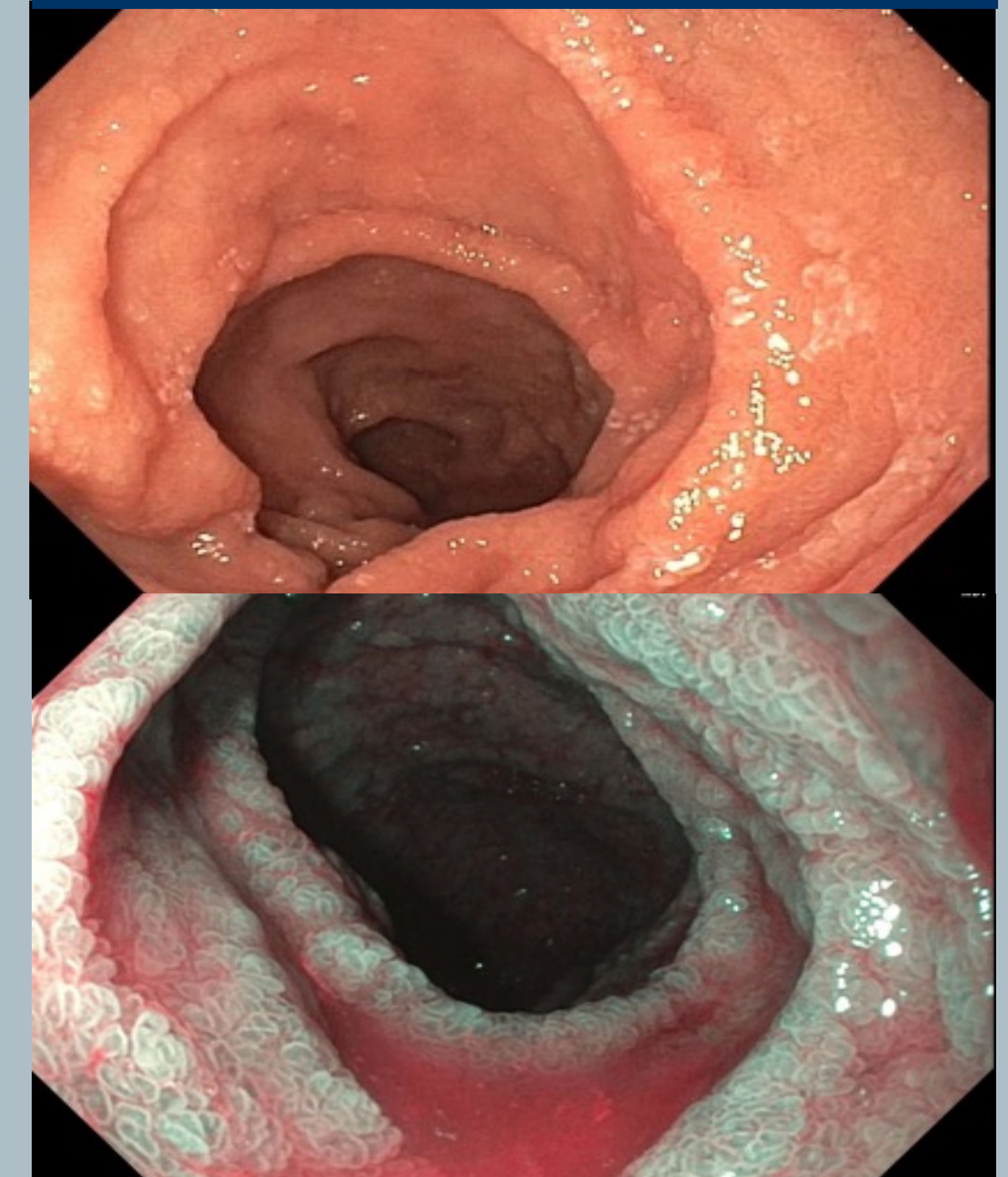


Figure 1. Scalloping and atrophy of the duodenum.

## DISCUSSION

- When OIE was initially described, 3/19 patients were positive for anti-enterocyte antibody indicating potential association.
- OIE and autoimmune enteropathy (AIE) are similar in clinical presentation and histologic findings. Histologic findings consist of villous atrophy, acute inflammation, intraepithelial lymphocytes, and occasionally a thick band of subepithelial collagen deposition.
- It is unclear if the presence of anti-enterocyte antibody indicates Olmesartan may precipitate AIE or if the antibody is related to OIE itself.
- We present this case to draw awareness to this relation and need for further investigation of the mechanism of injury in OIE.