Endoscopic Diagnosis of Small Intestinal Amyloidosis

A 69-year-old male patient was admitted to our hospital due to tarry stool passage and abdominal pain. On physical examination, there was mild tenderness over the epigastrium. Laboratory investigations were unremarkable, including protein and immunoelectrophoresis of urine and serum. Upper panendoscopy showed polypoid protrusions, erosions, ulcerations and friable musoca at the bulb and second portion of the duodenum (Figure **1**). An infiltrative lesion was suspected and multiple biopsies were taken from the involved area. Histological examination of the duodenal specimen showed amorphous eosinophilic material within the mucosa area with hematoxylin and eosin (HE) stain (Figure **2**). Congo red stain was positive under polarized light, presenting green birefringences indicative of amyloid deposition. Small bowel series revealed diffuse thickening of mucosal folds, multiple nodular densities with variable sizes and dilatation of the small bowel (Figure **3**). The patient underwent conservative treatment and was discharged two weeks later, with an uneventful follow-up period. Several endoscopic features of gastrointestinal (GI) amyloidosis have been described, including fine granular friability. Biopsy specimens taken from fine granular appearance and polypoid protrusion may yield a high positive result, especially in the duodenum (1). Endosonographic features were also described (2). Clinical symptoms and signs may correlate to variable layers of the GI walls involved by amyloid deposition such as hemorrhage, abdominal pain, obstruction, infarction and even perforation (3,4). Amyloidosis involving the GI tract may present with marked gaseous dilatation simulating intestinal obstruction by plain roentgenogram of the abdomen (5). We believe that the amyloidosis of the GI tract, albeit rare, should be considered as a differential diagnosis of intestinal infiltrative disease; biopsy and radiological studies may contribute to the diagnosis of this disease.

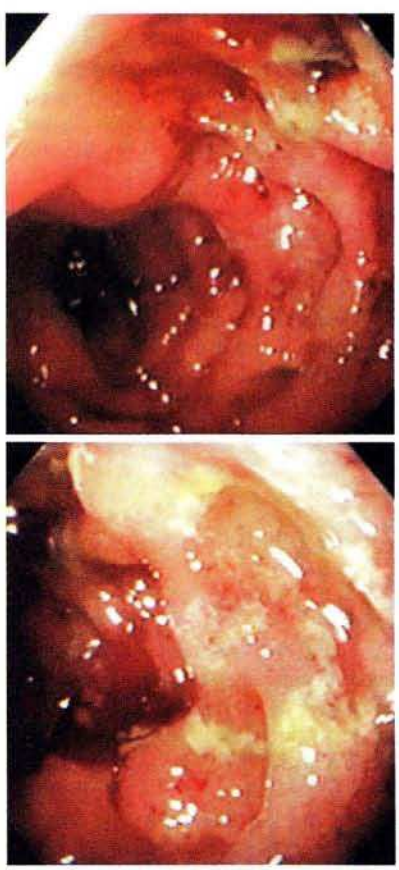

Figure 1: Endoscopy reveals a coarse appearance consisting of multiple protrusions, erosions, ulcerations and friability, with blood coating in the second portion of the duodenum.

Figure 2: Photomicrograph illustrating amorphous amyloid deposition (A) within duodenal mucosa (H & E stain, x 50).

Figure 3: Small bowel series revealed thickened muscosal folds, variable sizes of nodular changes (black arrows), and dilatation of the small bowel.

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