Diagnostic Dilemma: GI Disease

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An 85-year-old woman presented to the emergency department with epigastric pain and nausea for 2 days. She denied vomiting, fever, or early satiety. The patient stated she had lost 10 pounds over the past 3 months. A CT scan of the abdomen revealed a 1 cm low attenuation lesion in the second portion of the duodenum.

Test your diagnostic skills with the following endoscopic quiz.

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The patient underwent an esophagogastroduodenoscopy (EGD) that confirmed a subepithelial mass (photograph A). The lesion was biopsied (photographs B and C).

1) The endoscopic picture above demonstrates:
   a) GIST tumor
   b) Intestinal lymphoma
   c) Intestinal lymphangiectasia
   d) Type II choledocal cyst

2) The next step in treatment for this condition includes:
   a) Surgical resection of the lesion
   b) Endoscopic mucosal resection
   c) Whipple procedure
   d) Chemotherapy
   e) No treatment is needed
1. The correct answer is (c): (IL). This entity is characterized by dilated lymphatic vessels in the intestinal wall, which occurs as a result of the obstruction of lymphatic drainage from the intestine and elevated lymphatic pressure. It may be a primary process or secondary to a condition that impedes intestinal lymph outflow.

Although our case represents an isolated lesion, IL has been reported throughout the intestinal tract and can be associated with impaired absorption of fat-soluble vitamins and chylomicrons, as well as loss of protein and lymphocytes into the intestinal lumen.[1,2]

2. The correct answer is (e): no treatment is needed. This isolated or localized lymphangiectasia is benign. Patients with disease throughout the gastrointestial tract can be treated with a diet high in protein and low in fat, and supplementation of medium chain triglycerides (MTC), which do not require the lymphatic system for absorption.[1,3]

Primary IL typically occurs in children and young adults, and is usually associated with other genetic disorders. Secondary IL is an acquired disease that affects older patients. This process has a broad differential diagnosis, including lymphoma, carcinoma, parasite infections, tuberculosis, post-radiation effects, and constrictive pericarditis.[2,4]

Patients with IL are often asymptomatic but can present with vague symptoms of fatigue, edema, nausea, vomiting, diarrhea, and diffuse abdominal pain or discomfort. The most common presentation of IL is protein-losing enteropathy and fat malabsorption. Laboratory examination in this setting often reveals low levels of albumin, serum protein, gammaglobulins, and lymphocytes. Depending on the location of the blockage, this condition can also lead to chylous pleural effusion or ascites.[2] Clinically, this can lead to impaired cell-mediated immunity and thus increased risk of infection.[1,2,4]

The diagnosis of IL is confirmed with a biopsy of the small intestine, which reveals dilated intra- and submucosal lymphatic lacteals. In this case, the localized lymphangiectasia formed a mass (photograph A). Biopsy yielded milky, white fluid (photograph B), and the mass decompressed (photograph C). These are characteristic endoscopic findings of localized intestinal lymphangiectasias.[5] Most patients have no symptoms attributable to such lesions. Abdominal imaging, such as CT scan and ultrasound, may be helpful but are not diagnostic.

References:

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