Too Rare Association; Fundal Diverticulum And Small Bowel Adenocarcinoma

Çok Nadir Birliktelik: Fundus Divertikülü Ve İnce Bağırsak Adenokarsinomu

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Dear Editor,

A 44-year-old man presented with a three-year history of right abdominal discomfort and newly developed iron deficiency anemia as well as intermittent melena. His past medical history was unremarkable aside from three times ileus episodes which were not explained. During the one month, the hemoglobin level dropped from 14 mg/dl to 9,3 mg/dl. Other laboratory tests showed MCV(mean corpuscular volume):77(N:80-95), ferritin;3.3mg/L (N:11-306), iron;20ug/dl (N:65-175) and the positive stool blood test. The colonoscopy was completely normal. Upper endoscopy showed a 16 mm-sized fundal diverticulum (Figure-1).

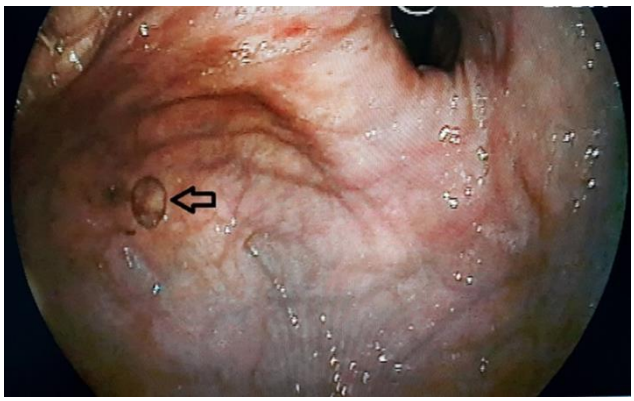

Figure 1. Endoscopic view of fundal diverticulum in retroflex position

To explain the etiology of ileus attacks and sudden onset anemia, a computed tomography was performed and this showed a highly suspicious malignant lesion with a significant intestinal wall thickening (18 mm). That lesion was assumed approximately at the proximal part of the ileum (Figure-2). Therefore, diagnostic laparotomy was done. During laparotomy, a 3,2 cm mass located in proximal ileum was detected and resected (Figure-3). Histopathological examination revealed an adenocarcinoma of the small intestine. The patient recovered well and discharged uneventfully.

Gastric diverticulum is a very unusual entity. Moreover, gastric fundal diverticula are rarer than other gastric diverticula. The prevalence ranges from 0,004% in contrast imaging methods to 0,01%-0,11% in endoscopic studies (1). They are usually asymptomatic and often diagnosed incidentally during upper gastrointestinal endoscopic or radiologic examinations (1). Similarly, the small intestine adenocarcinoma is also a very rare malignancy that comprises 1% to 2% of all gastrointestinal malignancies (2). To best of our knowledge, the possible association of gastric fundal diverticulum and small intestine adenocarcinoma has not been published before now.

In the literature, two types of gastric diverticulum have been defined so far. These are congenital and acquired types, with congenital types being more common. The possible causes of congenital gastric diverticula may be the defect in the muscles of the gastric wall caused by the division of the longitudinal fibers (3). By contrast, the acquired gastric diverticula are pseudodiverticula and they are usually associated with other pathologies of the gastrointestinal tract, such as peptic ulcer disease, malignancy, pancreatitis, or gastric outlet obstruction. At the same time, they are typically located in the antrum (4). Patients with symptomatic gastric diverticula are consulted their physicians with

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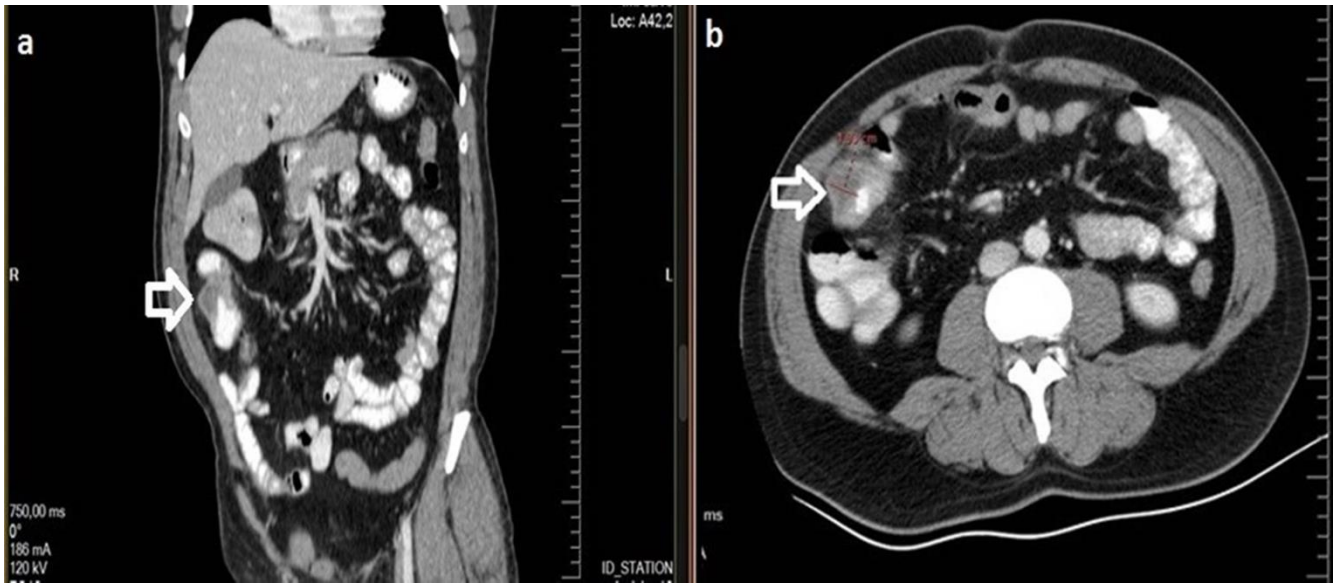

Figure 2a,b Axial and coronal images of abdominal computed tomography showing a significant wall thickening(18 mm) with highly suspicious malignant lesion at proximal part of ileum

complaints of pain, emesis, weight loss, iron deficiency anemia, or complications such as bowel obstruction or bleeding (5).

Figure 3. Pathology of resected proximal ileum showed a 3.1x2.72x 1cm malignant mass with prominent yellow colored.

In conclusion, the exact cause of gastric fundal diverticula is not clear. But the acquired gastric fundal diverticulum could be associated with many important diseases, as mentioned above. Consequently, based on our and other related cases, we hypothesized that the gastric fundal diverticulum may be formed as a result of increasing gastrointestinal pressure such as recurrent ileus attacks. Also, when encountered with a fundal diverticulum, an abdominal computed tomography may be useful for determining the possible etiologic reasons accompanied by.

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