often delayed until complications such as hemorrhage, obstruction or perforation develop (2). Acute abdomen as the first clinical manifestation due to their perforation is extremely rare (3). Furthermore, to the best of our knowledge, the concomitant occurrence of a perforated GIST and internal herniation has not yet been reported in the literature.

Gastrointestinal stromal tumors can be classified as low- or high-risk tumors. With regard to local invasion and tumor perforation, GISTs that invade a contiguous organ (e.g. urinary bladder) are considered to be advanced and associated with poor outcome. Immunohistochemical examination of GISTs is always positive for KIT protein (CD 117 antigen), while the positivity regarding other markers varies (2, 4).

The treatment of choice is surgical excision of the tumor. In cases of tumor perforation, five-year survival is 24% (2, 5). The clinical outcome can be detrimental when this tumor presents with bowel perforation, peritonitis and internal hernia, as in the presented case.

REFERENCES

1. Szentpáli K, Palotás A, Wolfárd A, et al. A gastrointestinal stromal tumour presenting in a perforated Meckel's diverticulum. Can J Surg 2004; 47: 70.
2. Karagülle E, Türk E, Yildirim E, et al. Multifocal intestinal stromal tumors with jejunal perforation and intra-abdominal abscess: report of a case. Turk J Gastroenterol 2008; 19: 264-7.
3. Versaci A, MacrìA, Grosso M, et al. Acute abdomen for perforated gastrointestinal stromal tumor (GIST). A case report. Ann Ital Chir 2009; 80: 69-73.
4. Efremidou EI, Liratzopoulos N, Papageorgiou MS, Romanidis K. Perforated GIST of the small intestine as a rare cause of acute abdomen: surgical treatment and adjuvant therapy. Case report. J Gastrointestin Liver Dis 2006; 15: 297-9.
5. Crosby JA, Catton CN, Davis A, et al. Malignant gastrointestinal stromal tumors of the small intestine: a review of 50 cases from a prospective database. Ann Surg Oncol 2001; 8: 50-9.

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Gastric outlet syndrome associated with a recurrent trichobezoar: Report of a case

Mide çıkış obstrüksiyonuna neden olmuş rekürren trikobezoar: Olgu sunumu

To the Editor,

While trichobezoars are mostly found in the stomach, they can be encountered in any part of the gastrointestinal system (GIS) as well (1). A 26-year-old female patient admitted to our clinic with the complaint of a one-year history of gradually increasing early satiation, postprandial vomiting, abdominal pain, weight loss, and a palpable mass in the abdomen present for the last two months. The patient had a history of a laparotomy operation due to gastric bezoar 10 years before. She regularly presented for her psychiatric follow-up visits for the first three years following discharge, but her visits became irregular in the next two years and she was eventually lost to follow-up. Major depressive character disorder was diagnosed in the psychiatric evaluation.

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Gastroscopic examination revealed that the stomach was completely filled with a black material, possibly trichobezoar, starting just at the gastroesophageal junction. Because she vomited the delivered contrast agent, non-contrast abdominal computerized tomography (CT) examination was performed, which demonstrated a markedly distended stomach with a heterogeneous structure. The patient was operated with the diagnosis of recurrent trichobezoar (Figure 1). Oral feeding was started on the postoperative fourth day, and she was discharged uneventfully with a psychiatric appointment scheduled for the 7th day of her discharge.

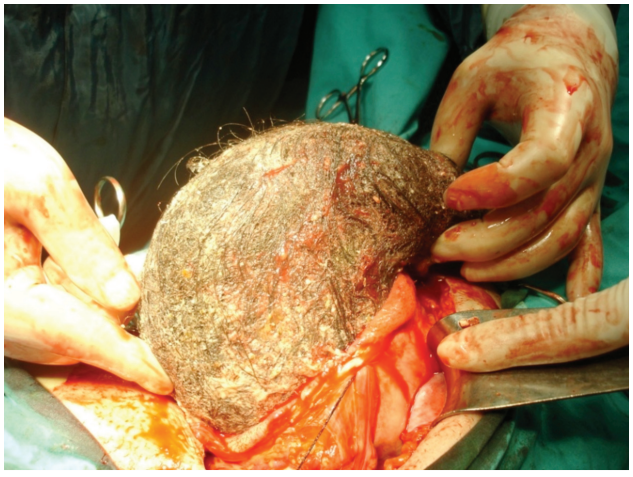

Figure 1. Removal of the trichobezoar (seen to fill the entire stomach) via gastrotomy.

Trichobezoars usually occur among young females with normal GIS anatomy and motility who have obsessive-compulsive trichophagia habits (2). Although incidence of trichobezoar is reported to be very low (0.4%) (3), the actual rate is unknown, because it is generally seen in people with psychiatric disorders or mental retardation, patients who do not present to a physician until the occurrence of remarkable clinical symptoms, and because individuals who have the habit of eating foreign objects generally fail to acknowledge their condition. Moreover, we have no accurate data on how many of the patients with trichophagia develop trichobezoars. While there are studies that report no development of trichobezoars in 186 patients with trichotillomania (4), there are also studies that report this rate as 25% (5). In the literature, there is no information about the recurrence rates in patients operated due to trichobezoars. In our case, the trichobezoar recurred after 10 years. Following surgery for the diagnosis of trichobezoar, patients should undergo psychiatric evaluation and should be followed-up regularly. In addition, their relatives should be informed about the precautions that can be taken to prevent recurrences with respect to nutrition, the necessity of a short hair-cut, and about keeping the patients away from objects containing hair. It should be kept in mind that in patients who do not receive adequate social and psychiatric support after the first treatment, the disease inevitably recurs.

REFERENCES

1. Hoover K, Piotrowski J, St. Pierre K, et al. Simultaneous gastric and small intestinal trichobezoars – a hairy problem. J Pediatr Surg 2006; 41: 1495-7.
2. Lin CS, Tung CF, Peng YC, et al. Successful treatment with a combination of endoscopic injection and irrigation with coca cola for gastric bezoar-induced gastric outlet obstruction. J Chin Med Assoc 2008; 71: 49-52.
3. Kadian RS, Rose JF, Mann NS. Gastric bezoars: spontaneous resolution. Am J Gastroenterol 1978; 70: 79-82.
4. Christenson GA. Trichotillomania-from prevalence to comorbidity. Psychiatric Times 1995; 12: 44-8.
5. Bhatia MS, Snghal PK, Rastogi V, et al. Clinical profile of trichotillomania. J Indian Med Assoc 1991; 89: 137-9.

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