were recorded as 106 and 84 minutes, respectively, and the closure times as 11 and 8 minutes, respectively. At endoscopic visualization 40 days after surgery, there were no signs of (infectious) complications, and the site of gastric closure of the stomach was normal (Figure 2).

Our initial experience with porcine hybrid transgastric NOTES cholecystectomy showed that this method seems to be feasible and safe in spite of technical limitations. This admittedly small study further supports previous reports suggesting the same results. Histology- confirmed full-thickness healing with 100% success is necessary to claim that this method should be applied.

In conclusion, by means of the presented technique, a rapid, easy and cheap closure method seems to be available in combination with NOTES. It is a promising new technology that requires further fine-tuning before it can be safely applied in the clinical setting.

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Gastrointestinal stromal tumor perforation in a case with neurofibromatosis presenting with abdominal pain

Karın ağrısıyla başvuran nörofibromatozisli olguda gastrointestinal stromal tümör perforasyonu

To the Editor,

Neurofibromatosis type 1 (NF-1), a rare genetic disease with autosomal dominant inheritance and characterized by cutaneous and glial fibromas, café-au-lait spots, axillary and inguinal freckles, Lisch nodules in the iris, and various bone abnormalities, is caused by a defective NF-1 gene. Incidence of somatostatinoma, carcinoid tumor, adenocarcinoma, and especially gastrointestinal stromal tumor (GIST) is increased in patients with NF-1 (1,2).

A 50-year-old female patient was admitted to our hospital for abdominal pain and diarrhea for six months. Physical examination was remarkable for presence of elevated neurofibromas of skin, café-au-lait spot, axillary freckles, and Lisch nodules in the iris. Hemoglobin value was 6.83 g/dl. Compute-

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rized tomographic examination of the abdomen demonstrated a 13x10 cm heterogeneous mass at the midline within the small bowel segment. On the 7th day of admission, new onsets of abdominal pain and rebound tenderness appeared on the physical examination. Abdominal plain film revealed free air below the diaphragm. Emergency surgical operation was performed. During the surgical exploration, there was massive exudative fluid between bowel segments, and multiple nodular lesions (0.5-4 cm) in the serosal layers of the small bowel and a 13 cm tumoral lesion, perforated anteriorly at the proximal jejunum and extending to the uterus and sigmoid colon, were detected (Figure 1). Sigmoid colon and small bowel resection, hysterectomy and bilateral oophorectomy were performed.

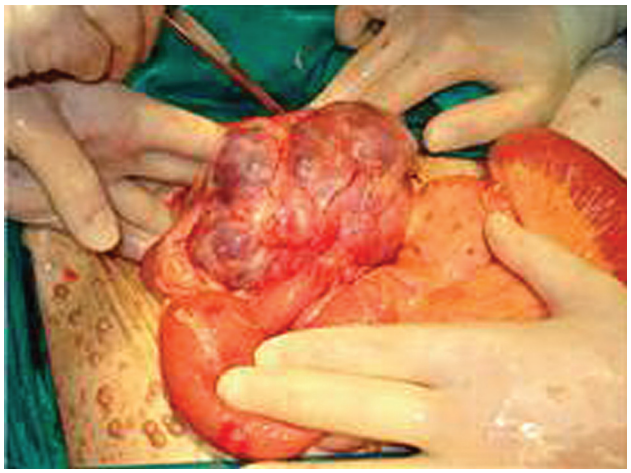

Figure 1. A 13 cm tumoral lesion perforated anteriorly at the proximal jejunum.

According to the immunohistochemical examination, the tumor was accepted as malignant high-risk GIST.

The most common cause of death in patients with NF-1 disease is malignancy. GIST frequency is generally 5-34% in patients with NF-1 disease (1,3). GISTs larger than 5 cm with an aggressive course are rarely seen (4). In our case, a 13 cm GIST was located in the jejunum, and positivity for CD-117 and CD-34 was lower than for sporadic gastric and jejunal GIST. GIST rupture is quite uncommon in the literature. Rupture occurred in the stomach in five cases, jejunum in two cases, and transverse colon in one case. All but one of these cases was sporadic GIST. Hemoperitoneum occurred in five patients, and peritonitis occurred in the remainder, as in our case. The largest tumor detected was a 15 cm gastric GIST and 6 cm jejunal GIST (5-7).

Eventually, if abdominal pain emerges in a patient with NF-1 disease, subsequent evaluations must be performed for increased tumor development. It must be remembered that in contrast to sporadic GISTs, GISTs occurring in NF-1 patients frequently arise from the small bowel.

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