

CAUSE OF RECURRENT INTESTINAL BLEEDING: STROMAL TUMOR OF THE JEJUNUM

TEKRARLAYAN İNTESTİNAL KANAMA NEDENİ: JEJUNUMUN STROMAL TÜMÖRÜ

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ÖZ

Giriş: Gastrointestinal stromal tümörler, tüm gastrointestinal tümörler arasında nadiren görülmekte olup, özellikle jejunum yerleşimli olanlarının tanısı güç olmaktadır. Klinikte barsak perforasyonu, intestinal obstrüksiyon ve kanama gibi bulgulara yol açabilmektedir.

Olgu: 57 yaşında erkek olup hematokezya ile başvurdu. Daha önce 3 kez tekrarlayan kanama nedeni ile tıbbi tedavi almıştı. Endoskopik olarak normal bulunan olguda BT de ince barsak ilişkili tümör bulundu. Ameliyatta jejunumdaki kitle parsiyal ince barsak rezeksiyonu ile çıkarıldı. Hastanın takiplerinde kanama yakınması kayboldu.

Sonuç: Jejunal yerleşimli stromal tümörler nonspesifik semptomlar vermekte ve endoskopi ile erişimin mümkün olmaması gibi nedenlerle tanıları güç olmaktadır. Endoskopi ile etiyolojisi aydınlatılmayan tekrarlayan GIS kanamalarında etyolojide ince barsak stromal tümörleri düşünülmeli ve ileri görüntüleme yöntemleri kullanılmalıdır.

SUMMARY

Introduction: Gastrointestinal stromal tumors are rarely seen among all gastrointestinal tumors, and diagnosis is difficult, especially those located in the jejunum. In the clinic, it can lead to findings such as bowel perforation, intestinal obstruction and bleeding.

Case: A 57-year-old male was admitted with haematochezia. He had received medical treatment for bleeding that recurred 3 times in his past. The patient was found to be normal endoscopically, but small bowel associated tumor was also found CT imaging. The jejunal tumor was removed with partial small bowel resection. The patient's complaint of bleeding disappeared in the follow-up.

Conclusion: Jejunal GISTs symptoms are not specific and access with endoscopy is not possible. Small bowel stromal tumors should be considered in the etiology of recurrent GI bleeding whose etiology cannot be clarified by endoscopy, and advanced imaging methods should be used.

INTRODUCTION

Gastrointestinal stromal tumors (GIST) are detected with a frequency of less than 1% among all gastrointestinal (GI) tumors, but they are the most common lesions among mesenchymal tumors of the GI (1,2). GISTs were first described by Mazur and Clark in 1983. Its incidence in the population is estimated to be 10-20 per million. GISTs can be located between the esophagus and the rectum and cause bleeding, intestinal perforation and intestinal obstruction in cases. GISTs are mostly benign, and it has been reported that 20-30% of them are malignant (1,2).

In this report, the importance of recurrent GI bleeding is emphasized because jejunum GIST was detected in a patient who was hospitalized with recurrent lower GI bleeding in an 8-year period and received medical treatment.

CASE

The 54-year-old male patient applied to the emergency department with complains of rectal bleeding in December 2019. The patient was admitted to non-surgical clinics 3 times in 2011, 2013 and 2018 due to lower GI bleeding, and no pathology could be found to explain the bleeding in the upper GIS endoscopy and colonoscopy examinations.

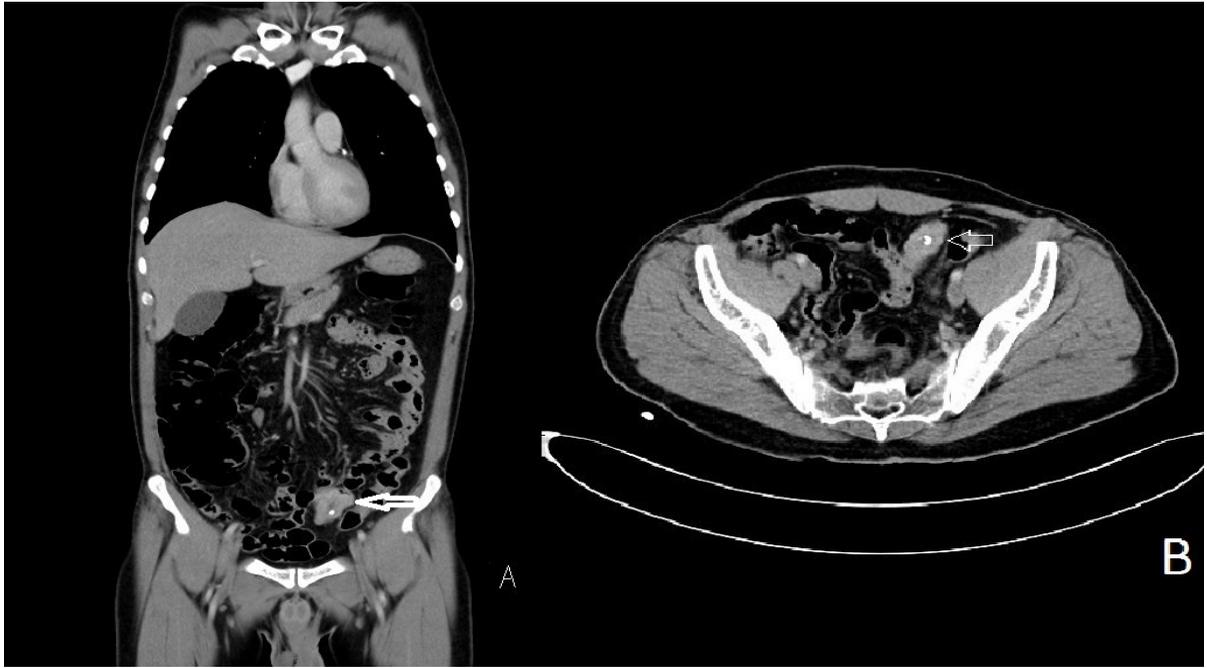
It was observed that the bleeding stopped spontaneously, blood products were replaced for therapeutic purposes, and the patient was discharged after the Hemoglobin (Hb) level was increased above 10 g/dL.

There was no pathological finding in the abdominal ultrasound of the patient, which was performed in 2011. When the patient applied with the complaint of rectal bleeding again in 2019, it was seen that he did not have a chronic disease

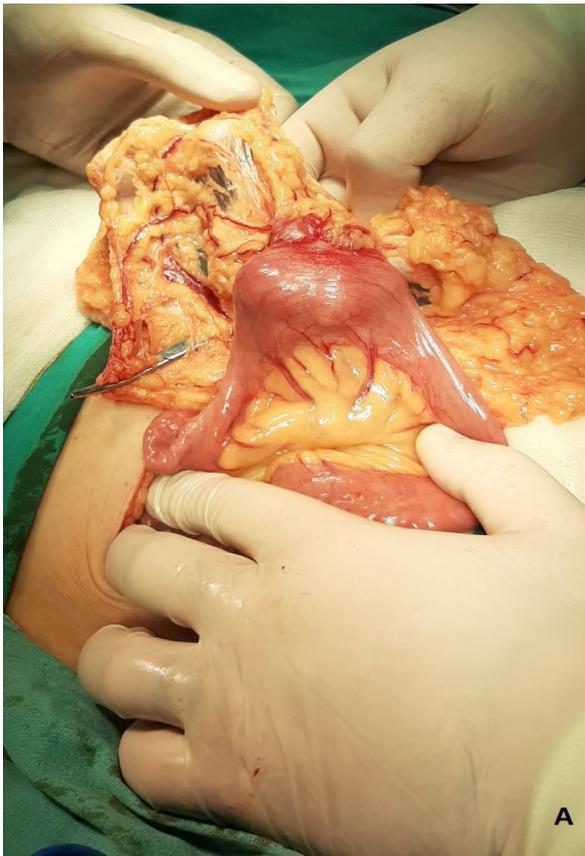
or surgery in his anamnesis. He did not use drugs that could cause bleeding.

In the examination of the patient in our clinic, the blood pressure was 100/70 mm Hg and the pulse 100 beats per minute. The physical examination was normal except for the presence of blood in the rectum. Hb level was found to be 8.3 gr/dL in the patient whose biochemistry profile was normal. Hb was increased above 10g/dL by iv crystalloid fluid infusion and erythrocyte replacements. No hematochezia was found in the patients whose tachycardia completely regressed in the follow-up. Bleeding origin was not detected in the patient's upper gastrointestinal endoscopy and colonoscopy. Contrast abdominal computer tomography (CT) of the patient revealed a solid mass lesion with a diameter of 4 cm, which was thought to originate from the small intestine, containing areas of calcification and showing contrast enhancement (Picture 1A-B). Laparotomy was planned in the patient with a preliminary diagnosis of small bowel tumor and informed consent was obtained.

In laparotomy, a tumoral mass of 4 cm in diameter, located 150 cm from the Treitz ligament in the jejunum, was found. The mass was attached to omentum (Picture 2A). There was no finding of distant metastasis in the abdomen. We performed a small intestine resection with the attached omentum 10 cm proximal and distal to the mass (Picture 2B). End-to-end, double layer anastomosis was performed manually to the small intestine. The patient was discharged on the 4th day without any complications. Low-risk GIST was detected by pathological examination of the tumoral mass. The patient was followed up in the oncology clinic with the pathology result. In the clinical follow-up of the patient, there was no bleeding for 25 months.



Picture 1. Appearance of a heterogeneous mass of 4 cm. in diameter with calcification in coronal (A) and axial (B) sections on CT (arrowed)



Picture 2. Intraoperative view of the jejunal tumor (A) and inside the lumen of resected bowel (B)

DISCUSSION

GIST localization is most common in the stomach (60-70%) and the second most common in the small intestine (25-35%). Jejunal-located GISTs constitute 10% of all GISTs (1,2). Jejunal GISTs are usually asymptomatic, but they can cause abdominal pain, abdominal discomfort, early satiety, obstruction, bleeding, and perforation. Intra-abdominal bleeding is seen less frequently. When all GISTs are evaluated, 70% are diagnosed symptomatically, while 30% are detected incidentally. While bleeding is the main finding in 46% of symptomatic GISTs, chronic anemia was found in 3% of cases (3). The size of the tumor and its localization in the intestine are important in clinical symptoms. In studies, the frequency of jejunum, ileum, and duodenum GIST was found to be 65%, 21%, and 12%, respectively (3). The main cause of bleeding in GISTs is the development of necrosis, ulcers and erosions in the mucosa of the tumor area. GISTs can be diagnosed in the late period due to their low frequency and non-specific symptoms.

In the patient with recurrent GI bleeding episodes, as in our case, tests to detect the origin of bleeding should be planned first. First of all, upper GIS endoscopy and colonoscopy should be performed. In cases where the origin of bleeding is not detected, capsule endoscopy is also recommended, but it has been reported that hemorrhage in the bowel lumen makes the diagnosis difficult (2,4). In cases where the origin of bleeding is not detected endoscopically, ultrasound, CT, MRI or CT-angiography shall be considered as imaging methods in the diagnostic algorithm. In the ultrasound examination, diagnosis may not be provided due to the thickening of the intestinal wall or the overlapping of the intestinal loops. In addition, abdominal CT or MRI shows a localized exophytic or lumen-protruded mass in the small intestine, providing a high rate of preoperative insight (2,4,5). However, the presence of a large tumoral mass in the abdomen or pelvis does not make the diagnosis of small bowel tumor, but requires differential diagnosis of pancreatic, gynecological or mesenteric tumors. While the diagnosis of small bowel GISTs can be made in 67% of the cases with CT, the sensitivity of CT-angion was found to be 90% in bleeding small bowel GISTs (6). In the

case we presented, the diameter of the GIST was 5 cm as an imaging and surgical finding, and it has been reported to be between 1 and 14 cm in the series (2,5). In our case, needle biopsy from the mass was not performed because it may cause bleeding or cell seeding from a malignant tumor. Needle biopsy is not recommended in cases where GIST is considered in the preliminary diagnosis and it is resectable by imaging methods and distant organ spread is not detected (2,4,7,8).

Small bowel GISTs are usually exophytic growing, smooth-surfaced lesions. However, as in our case, it may cause omental involvement as well as adhesions in the surrounding intestinal loops. An-block resection of the tumor without rupture and with intact bowel margins is important for the prognosis of the disease. Local or regional lymph node metastases are rare in small bowel GISTs and lymphadenectomy is not usually necessary. Although the treatment of small bowel tumor causing recurrent bleeding is elective surgery of the mass, emergency intervention may be required in 10% of the cases (3). Open or laparoscopic methods are used in surgical intervention in patients, and the frequency of laparoscopic surgery is 20% (9). It has been stated that the short-term results of laparoscopic intervention are better in tumors smaller than 10 cm, and oncological results are similar to open surgery. In high-risk GISTs of the small intestine, it has been reported that distant organ metastases develop in 50% of the cases, although local recurrences are 7% in the post-operative 48-month follow-up (10). Therefore, while adjuvant therapy is used to ensure long overall survival in high-risk GISTs, it is not indicated in low-risk GISTs.

In conclusion, in cases where the etiology cannot be revealed by endoscopy in patients with recurrent GI bleeding, it should be considered that there may be bleeding originating from the small intestine, and diagnosis should be made with imaging methods. When a mass in the small intestine is detected in a patient who presented with bleeding, as in our case, the possibility of GIST should be suspected and surgery should be performed with oncological principles.

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