

GIST-INDUCED UPPER GASTROINTESTINAL BLEEDING

DEOMIR GERMANO BASSI¹, FERNANDA PEREZ ADORNO DA SILVA², FLAVIA MARIA DE OLIVEIRA SOUSA³

Study conducted at Hospital Universitário de Taubaté, São Paulo, SP, Brazil

Gastrointestinal stromal tumors (GIST) are rare neoplasms that mostly affect patients over the age of 50, with no gender predilection^{1,2}. The diagnosis of GIST is made by means of immunohistochemistry testing for CD117 (c-kit), and combination treatment with surgical intervention and adjuvant chemotherapy has produced good outcomes³. We report a case of gastric GIST diagnosed after an episode of upper gastrointestinal bleeding and successfully treated by subtotal gastrectomy.

CASE REPORT

A 51-year-old male presented with a 5-day history of moderately intense, crampy abdominal pain in the periumbilical region associated with nausea, dizziness, and melena. One day prior to seeking care, the patient developed hematemesis and lightheadedness. Upper GI endoscopy showed an ulcerated submucosal gastric lesion with signs of recent bleeding and an overlying clot, mild duodenitis, and two well-healed chronic duodenal ulcers. The initial diagnostic hypothesis was leiomyoma. A CT scan of the abdomen showed a mass lesion on the anterior wall of the stomach (Figure 1). The patient underwent subtotal central gastrectomy on the fourth hospital day. Intraoperatively, a tumor roughly 8 cm long at the largest axis was found on the anterior wall of the stomach, approximately 6 cm from the cardia (Figures 2 and 3).

Anatomic pathology showed a mesenchymal spindle cell neoplasm with slight pleomorphism, a mitotic index of zero, necrosis and hyaline degeneration, and confirmed tumor-free margins.

Immunohistochemical testing was diffusely positive for CD117, leading to a final diagnosis of intermediate-risk GIST. The patient had an uneventful clinical course and was discharged on the fifth postoperative day.

DISCUSSION

Gastrointestinal stromal tumor (GIST) is a nonspecific designation given to mesenchymal tumors arising from the interstitial cells of Cajal, pacemaker cells associated with Auerbach's plexus that express CD117 (c-kit), a proto-oncogenic protein. Expression of c-kit distinguishes GIST from leiomyoma, leiomyoblastoma, and other mesenchymal tumors of the gastrointestinal tract^{1,3,4}.

Most GISTs are symptomatic, with 60% to 70% occurring in the stomach, small intestine, or rectum; the most common clinical manifestations are gastrointestinal bleeding,

bowel obstruction, and abdominal pain². Preoperative laboratory diagnosis is still elusive, although research is underway to identify specific biomarkers^{2,4}.

Despite substantial improvement in the understanding of GIST over the past few years, doubts remain as to possible prognostic factors. Identification of these factors is tied to the importance of stratifying patients into risk groups and, consequently, pinpointing those with a higher likelihood of recurrence or shorter survival after surgical resection, thus enabling the use of adjuvant targeted therapy in cases with a worse prognosis³.

Treatment consists of surgical resection with margins of at least 2 to 4 cm^{1,2,3,4}. Tumor site is an important factor in planning surgery, as anterior lesions are best treated with wedge resection and posterior ones with gastrectomy². In very low and low-grade tumors, surgery is followed by outpatient follow-up, whereas high-risk patients receive adjuvant imatinib therapy. There is no consensus as to the optimal management of intermediate-risk tumors.

We conclude that the difficulty in obtaining an accurate preoperative diagnosis has an impact on surgical treatment of GIST, and that management of patients with "intermediate-risk"

Figure 1 – Contrast-enhanced abdominal CT, showing a hypodense lesion extending into the stomach lumen



1- Professor Titular - Doutor da Disciplina de Clínica Cirúrgica da Universidade de Taubaté e membro do Colégio Brasileiro de Cirurgia, São Paulo, SP

2- Acadêmica de Medicina da Universidade de Taubaté, São Paulo, SP

3- Residente de Cirurgia Geral do Hospital Universitário de Taubaté, São Paulo, SP

Figure 2 - Subtotal (central) gastrectomy specimen showing neoplastic lesion

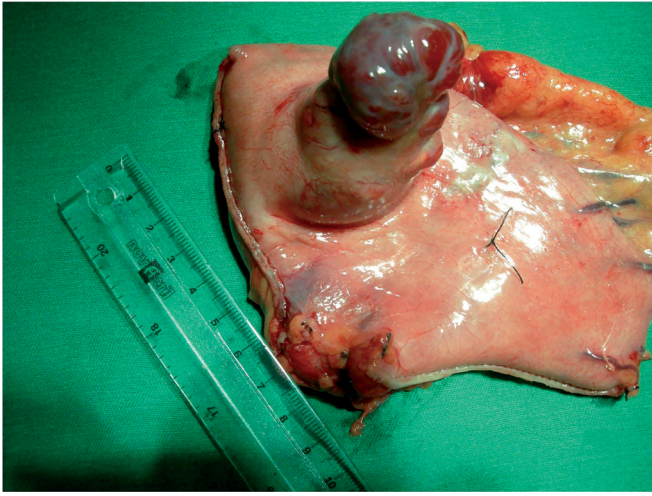
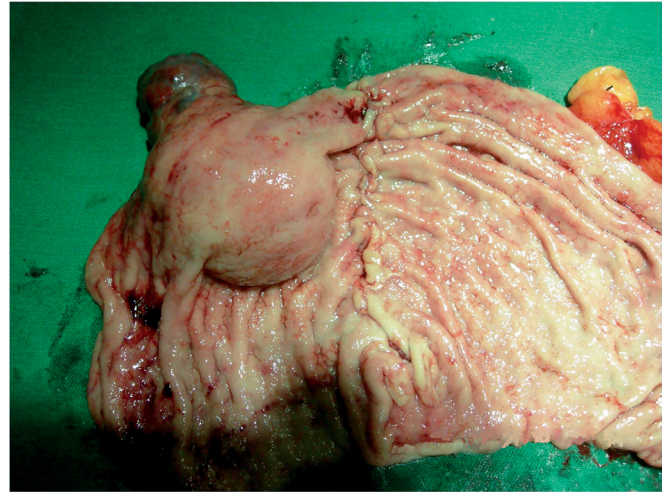


Figure 3 - Opened gastrectomy specimen showing the source of bleeding



tumors is still challenging. We suggest that GIST be included in the differential diagnosis of all patients with upper gastrointestinal bleeding.

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*Correspondence:

Av. Tiradentes, 500 - Bom Conselho
Taubaté - SP, Brazil
CEP: 12030-180
Phone: (12) 3625-4271 ou 3621-8796