SCIENTIFIC LETTER

Mid-gastrointestinal bleeding secondary to a gastrointestinal stromal tumor of the jejunum: A case report

Hemorragia digestiva media secundaria a tumor estromal gastrointestinal de yeyuno: reporte de caso

Gastrointestinal stromal tumors (GISTs) are considered the most common mesenchymal neoplasias of the digestive tract, with a current incidence of 10 to 20 cases per million inhabitants, according to the latest case series.1

A 66-year-old woman with an unremarkable past medical history, had disease onset one month prior, presenting with intermittent colicky abdominal pain of mild intensity, associated with sporadic events of scant-quantity melena, for which she sought medical attention with a private-sector physician. She was diagnosed with gastric ulcer and Helicobacter pylori infection and had partial improvement with the prescribed treatment. Two days before hospital admission, abdominal pain reappeared with the same characteristics, but was persistent and more intense. She also had numerous episodes of vomiting of the food content of the stomach. On the day of admission, she presented with 6 episodes of hematochezia, associated with fainting sensation. Clinical examination revealed hemodynamic instability, for which she was given intravenous resuscitation with crystalloids, with partial response. The patient also presented with skin and mucosal pallor and abdominal pain upon deep palpation at the level of the mesogastrium. The findings in the rest of the physical examination were normal. The patient's hemoglobin level was in the severe normocytic-normochromic anemia range (Hb: 6.5 mg/dl), and so she underwent transfusion with 3 units of red blood cells. Later control showed Hb at 8.5 mg/dl. Conventional endoscopic studies were normal. Abdominal tomography scan identified a contrast-enhanced lesion with irregular edges and a 5-6 cm diameter, with hypodense areas in its interior. The lesion was dependent on the small bowel, with no signs of metastasis (fig. 1A). The patient continued to present with daily episodes of hematochezia and melena during her hospitalization. Because our hospital does not offer capsule endoscopy or enteroscopy, the patient underwent exploratory laparoscopy that revealed a multilobulated and pedunculated mass with a 5-6 cm diameter located 2 m from the ileocecal valve and 1.7 m from the angle of Treitz (fig. 1B). The jejunal tumor was resected and end-to-end anastomosis was performed.

Microscopic examination identified a proliferation of fusiform cells that compromised the muscularis propria and subserosa, without involving the mucosa (fig. 2A). There was necrosis in 5% of the tumor sample and a low mitotic index (<5 mitosis/5 mm²) (fig. 2B). Immunohistochemistry staining was positive for CD117 and DOG-1 and negative for CD34 (figs. 2C and D).

Bleeding ceased after treatment and no new decreases in hemoglobin were observed. The patient remained asymptomatic and was released from the hospital.

The diagnostic and therapeutic approach to GISTs when mid-gastrointestinal active bleeding is present is controversial.1 Leclere et al.2 found a diagnostic yield of capsule endoscopy of 67% in severe active mid-gastrointestinal bleeding. The cause was tumor in 9% of those cases. They considered that method the diagnostic tool with the best posterior therapeutic impact. However, other authors suggest beginning with deep enteroscopy, given that it offers immediate diagnostic-therapeutic measures. Heine et al.3 reported 73% diagnostic sensitivity with double-balloon enteroscopy, without previous capsule endoscopy, and endoscopic treatment was performed in 55% of those patients, showing the high complementariness of both studies, even in that clinical context.

Abdominal tomography has a role in both the diagnosis of GIST and post-treatment follow-up, given that positivity results in immediate therapeutic conduct.4 Based on the tomographic criteria of Choi, Blanco et al.5 found complete response in 31 patients with GIST under treatment and disease progression in 16.1%, demonstrating the great usefulness of abdominal tomography in the follow-up of that group of patients. Our patient presented with a lesion identified through tomography, for which surgery was rapidly performed.

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Figure 1  A) Contrast-enhanced lesion with hypodense areas in its interior. B) Multilobulated tumor dependent on the intestinal wall.

Figure 2  A) Proliferation of fusiform cells (H&E x10). B) Presence of necrotic foci (H&E x10) Immunohistochemistry positive for CD117. D) Immunohistochemistry negative for CD34.

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References

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