SAS Journal of Surgery
Abbreviated Key Title: SAS J Surg
ISSN 2454-5104
Journal homepage: https://www.saspublishers.com

OPEN ACCESS

Visceral Surgery

Gastrointestinal Stromal Tumor (GIST) in its Mesenteric Location: about One Case

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DOI: 10.36347/sasjs.2023.v09i05.003 | **Received:** 16.03.2023 | **Accepted:** 23.04.2023 | **Published:** 05.05.2023

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Abstract | **Case Report**

Gastrointestinal stromal tumors (GIST) are the most common mesenchymal tumors of the digestive tract but very rare in its mesenteric location. We report the case of a young 43-year-old patient followed for iron deficiency anemia. Exploration by imaging showed a tumor mass 5 cm long, probably at the expense of the root of the mesentery of the distal jejunum. The midline laparotomy showed a mesenteric mass in contact with the jejunum located 70 cm from the duodenojejunal angle. We performed total tumor resection associated with segmental resection of the jejunal loop and end-to-end grelo-grelic anastomosis. The postoperative was simple. The pathological report showed a mesenteric gastrointestinal stromal tumor and the immunohistochemical study showed the positivity of the tumor cells for the anti CD117 antibody. Given the size (5 cm), weight (100 g) and location of the tumor with complete surgical resection, adjuvant treatment was not instituted in our patient.

Keywords: Gastrointestinal stromal tumors (GIST), mesenchymal tumors, anemia, jejunal loop.

INTRODUCTION

Although they are relatively rare in their mesenteric localization, gastrointestinal stromal tumors are the most frequent mesenchymal tumors of the digestive tract. They represent a particular nosological entity characterized by the almost constant expression on the surface of tumor cells of a receptor for a tyrosine kinase commonly called c-Kit or CD117. They can affect any segment of the digestive tract from the esophagus to the anus but most often sit in the stomach and small intestine. We report the rare case of a mesenteric stromal tumor revealed by imaging.

GISTs are generally sporadic, which does not require an oncogenetics consultation, with the exception of rare cases associated with familial syndromes [1].

OBSERVATION

This is Miss M. H, 43 years old, single, teacher by profession, followed for iron deficiency anemia for three (03) months, who presented for two (02) months of abdominal pain accompanied by melena, all evolving in a context of good general condition.

On clinical examination, the patient was conscious, cooperating with good general condition, hemodynamically and respiratory stable (blood pressure 120/70 mmHg, heart rate 70 beats/minute, respiratory rate 18 cycles/minute), GCS 15 /15, WHO score 0, no lower limb edema, hypo-stained conjunctivae and teguments, weight 50 kg, height 156 cm, BMI 20.54; an abdomen without notable features, the proctologic examination without particularity. The rest of the somatic examination is unremarkable.

Biologically, there is iron deficiency anemia (hemoglobin at 9.2 g/dl; hematocrit at 35.9 l/l; Plq at 338, ferritin at 25 ng/ml, balance sheets (renal, hepatic and ionogram blood) are normal, the C-reactive protein CRP at 5 mg/l, the blood group O positive.

On imaging, fibroscopy finds diffuse erythematous gastritis. Colonoscopy reveals internal hemorrhoids. An abdominal ultrasound showing a solid tumor mass of 05cm on the left flank, intraperitoneal, very probably small (Figure 1).

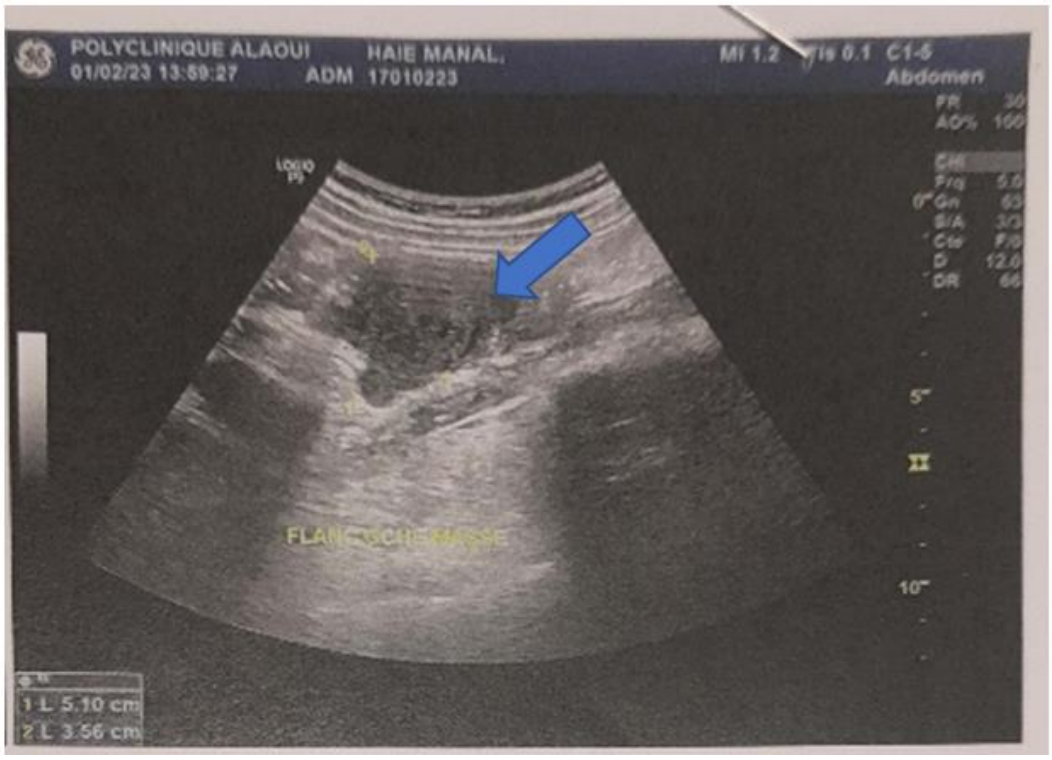

Figure 1: Abdominal ultrasound showing a solid tumor mass of 05cm on the left flank, intraperitoneal, most likely small intestine. HMMI-Meknes Imaging Service

A thoraco-abdomino-pelvic CT scan showing a 5 cm long mesenteric mass in contact with the distal jejunum (Figure 2).

Figure 2: TAP CT showing a mesenteric mass in contact with the distal jejunum. HMMI-Meknes Imaging Service

Entero MRI which shows a deep abdominal mass very probably at the expense of the root of the mesentery evoking a GIST (Figure 3).

Figure 3: Entero MRI showing a deep abdominal mass most likely at the root of the mesentery evoking a GIST. HMMI-Meknes Imaging Service

The diagnosis of a mesenteric tumor is retained and the patient was hospitalized and taken care of in the Department of Visceral Surgery for tumor resection.

After three (03) days of preparation for service, the patient was admitted to the operating room for tumor resection.

She is installed on the operating table in the supine position under general anesthesia with a bladder and naso-gastric tube.

Midline periumbilical laparotomy. Exploration shows a mesenteric tumor in contact with the distal jejunum with extraluminal development located 70 cm from the duodenojejunal angle.

We proceed to:

- The ligature section of the mesentery at 02 cm from the tumor,
- Section of the hail 02 cm on either side of the tumor,
- Temino-terminal grelo-grelic anastomosis by two hemi-overlocks with Vicryl 3/0,
- Careful hemostasis, Fig 4, 5 and 6.

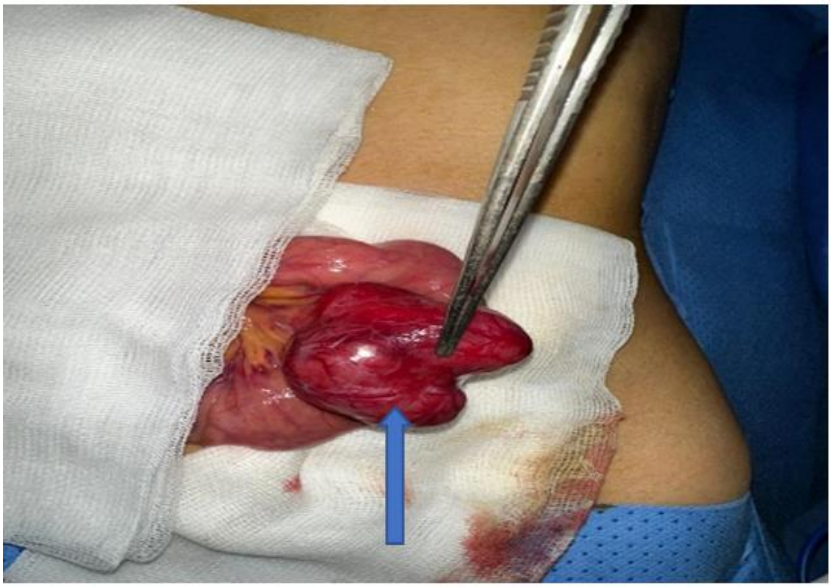

Figure 4: Tumor at the expense of the mesentery and the hail. Department of Visceral Surgery HMMI

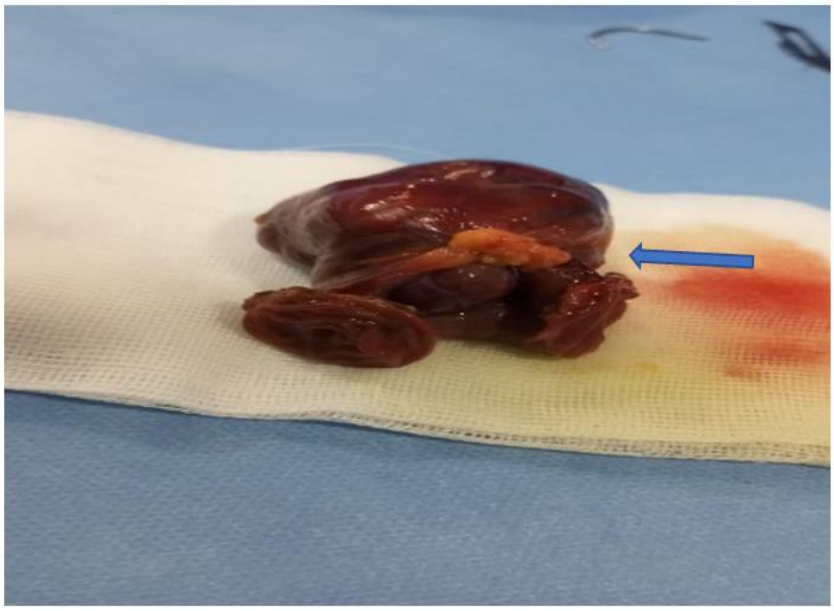

Figure 5: Tumor part of the mesentery and small intestine. Department of Visceral Surgery HMMI

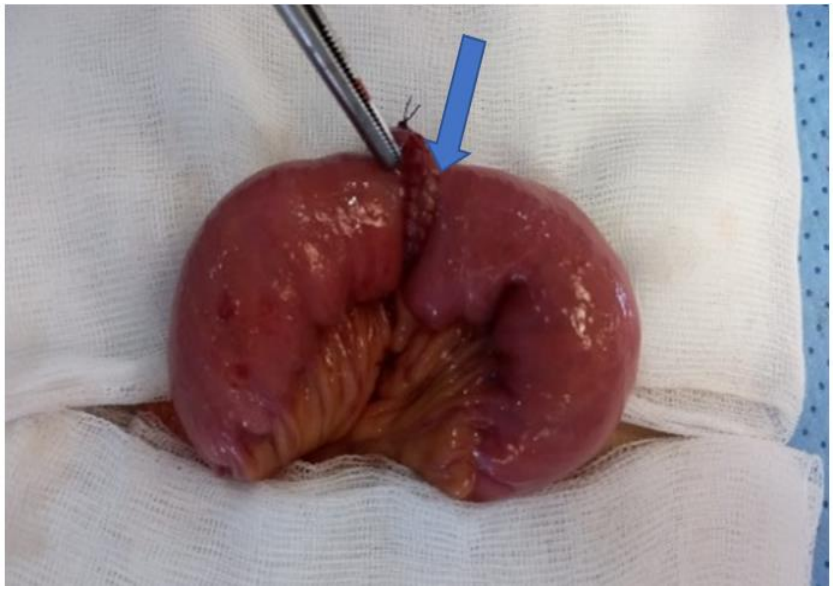

Figure 6: Termino-terminal grelo-grelic anastomosis. Department of Visceral Surgery HMMI

The postoperative was simple; the anatomopathological report showed a gastrointestinal stromal tumor with a size of 5 cm long axis, mitosis at 15/50 without necrosis or capsular rupture and the immunohistochemical study showed the positivity of the tumor cells for the anti CD117 antibody.

DISCUSSION

Digestive stromal tumors are rare mesenchymal tumors that can occur at any age, generally between 50 and 60 years old, with a sex ratio close to 1 [2, 3]. We report a case of stromal tumor of the mesentery in this young 43-year-old patient. They are most often located in the stomach (60%), the small intestine (25%) and the colon (5 to 10%) [4, 5], which is the particularity of our study. They represent less than 1% of malignant tumors of the digestive tract.

The usual clinical manifestations are represented by abdominal pain and an abdominal mass syndrome [6, 7]. On the other hand, it was marked in our series by melena leading to iron deficiency anemia.

Clinical diagnosis is often delayed, which is why most of these tumors are discovered at an advanced stage of abdominal mass. Gastrointestinal bleeding is the most frequently observed clinical sign [8, 9].

The discovery of an abdominal mass is found in 40% of cases, this was the case in our patient. CT is currently the modality of choice in the initial evaluation of abdominal masses suggestive of stromal tumors [10].

CT and MRI make an undeniable contribution to the preoperative diagnosis of GIST by allowing, in addition to visualization of the tumor, to guide a fine needle biopsy for diagnostic purposes. According to Ortiz.

Rey *et al*., [11], this relatively simple and beneficial procedure is commonly indicated in GIST. In our patient, TAP CT showed a mesenteric mass 5 cm long in contact with the distal jejunum, however no biopsy was performed to avoid the risk of possible tumor dissemination in the abdominal cavity.

Spindle cells are the most common histological type in stromal tumors [12]. The treatment is essentially surgical, the recommended approach is a laparotomy. Surgical resection, macroscopically complete with healthy resection margins without lymphadenectomy, is the best treatment for localized stromal tumors. The main risk is tumor effraction, which is associated with a high risk of peritoneal dissemination [13].

En bloc resection is recommended if possible. However, the optimal limit of resection margins is not well defined. Associated lymph node dissection is not necessary [13].

In our patient, given the size, weight and location of the tumor with complete surgical resection, adjuvant treatment was not instituted.

CONCLUSION

The benign or malignant nature of these tumors is difficult to define; the case of our series presents the exceptional size of 05 cm long axis weighing 100 g thus being a good prognostic factor. Complete surgical resection remains the treatment of choice despite significant advances in targeted therapy.

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