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Gastrointestinal Stromal Metastatic Pancreatic Tumor with Relapse Developed in the Mesentery

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Abstract **Case Report**

Introduction: Gastrointestinal stromal tumors (GIST) are rare, usually sporadic connective tissue tumors, usually localized in the stomach or small bowel. The frequency of this tumor is rare compared to other abdominal tumors. Although they are the most common mesenchymal tumours of the digestive tract, GISTs are thought to account for only around 1% of all digestive tumours. We report a case of metastatic gastrointestinal stromal tumor of the pancreas with relapse developed in the mesentery at the Surgical Department B of the Point G University Hospital Center. ***Observation*:** This was a 37-year-old patient with a history of excision of locally advanced corporocaudal pancreatic GIST. He was referred 5 years later for a painful abdominal mass. After clinical and paraclinical examinations, a recurrence of GIST was diagnosed. A mesenteric tumour was removed. Histology concluded a mesenteric GIST. ***Conclusion:*** GISTs are the most common mesenchymal tumors of the gastrointestinal tract.

Keywords: Pancreatic GIST, mesenteric recurrence, excision.

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INTRODUCTION

Gastrointestinal stromal tumors (GISTs) are rare, usually sporadic, connective tumors, usually localized in the stomach or small intestine. Yet they are the most common sarcoma [1, 2].

Several studies have estimated their incidence at between 10 and 15 cases per year and per million inhabitants, i.e. around 600 to 900 new cases per year in France [3]. GISTs occur in adults at any age, but rarely before the age of 40, with a peak frequency around the age of 50-60 and a sex ratio close to 1. Anatomopathological series suggest a high frequency (20-35%) of gastric GISTs a few millimetres in diameter (known as "micro-GISTs") in adults, unrecognized without systematic histological investigation. Their evolution seems inconstant, and some may even regress spontaneously. The factors involved in the evolution of these micro-GISTs are as yet unknown.

OBSERVATION

This was a 37-year-old teaching patient with no particular medical history in whom tumor excision of a locally advanced corporocaudal pancreatic GIST with invasion of the posterior gastric surface was performed on May 02, 2019. Early operative follow-up was straightforward and the patient was referred to the medical oncology department of CHU Point G. He was lost to follow-up (period unspecified) with interruption of management until March 2021 when in a context of persistent abdominal pain, anemic syndrome and melena, he consulted the medical oncology department. A follow-up thoraco-abdominopelvic computed tomography (CT) scan revealed an intraperitoneal abdominopelvic and prancreaticogastric tissue tumor process associated with secondary hepatic localizations. Targeted therapy with imatinib (Glivec) was immediately instituted. A CT scan on 10/01/24 showed (in comparison with previous CT scans) stability of the abdomino-pelvic mesenteric mass, with total regression of the pancreatic mass, with no secondary pulmonary,

lymph node or bone localizations, but cystic liver formations (segments IV, V and VII).

From May 2024 onwards, the evolution of the clinical picture was marked by spontaneous episodes of right flank pain, intermittent, burning-like, of moderate intensity, without any triggering factor or lull, prompting an abdominopelvic ultrasound on June 30, 2024, which revealed a suspicious-looking cystic mass occupying the mesogastrium and pelvis, responsible for bilateral ureterohydronephrosis (mesenteric cyst), and two secondary liver masses (segments V and VIII). He was referred to us on suspicion of tumour recurrence. Clinical examination on admission (18/07/24) revealed:

- A syndrome of altered general condition: anorexia, physical asthenia and notion of weight loss (unquantified) with a WHO performance index of 2.

Tumor syndrome: increased abdominal volume with palpation of a firm, painful, ill-defined hypogastric mass, extending into the umbilical region, the iliac fossae and the flanks, measuring 18x16cm, fixed in relation to the deep plane and mobile in relation to the superficial plane.

- Compression syndrome: constipation, dysuria, abdominal pain, bulging mass in the cul-de-sac of Douglas (on rectal examination)
- Anemia syndrome: physical asthenia and conjunctival pallor.

After discussion of the hypotheses and taking into account the aforementioned paraclinical examinations, the diagnosis of recurrence of a pancreatic GIST (rT4N0M1) was made.

Preoperative workup:

CBC: Hb: 10.5 g/dL (normochromic normocytic), WBC: 7.8 G/L, Platelets: 260 G/L

Blood glucose: 5.42 mmol/L (4.1 - 6.1); Urea: 6.4 mmol/L (2.5 - 7.5)

Creatininemia: 126 µmol/L (60 - 120)- PT: 89; APTT: 32.2 sec (26 - 36)

Albuminemia: 38 g/L (38 - 45); Blood group: A+ (rhesus positive)

ALAT: 58 IU/L; ASAT: 48 UI/L

Intraoperatively, the tumor was a mesenteric tumor. The tumour was completely resected R0. postoperative recovery was straightforward. Histology showed a mesenteric GIST. The patient was referred to oncology for adjuvant treatment.

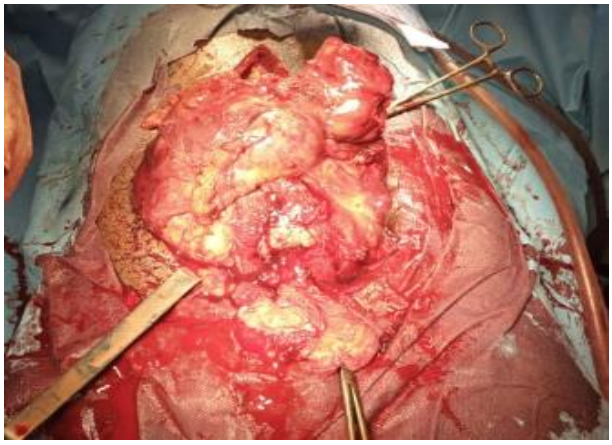

Figure 1: Mesenteric GIST in per operatoire

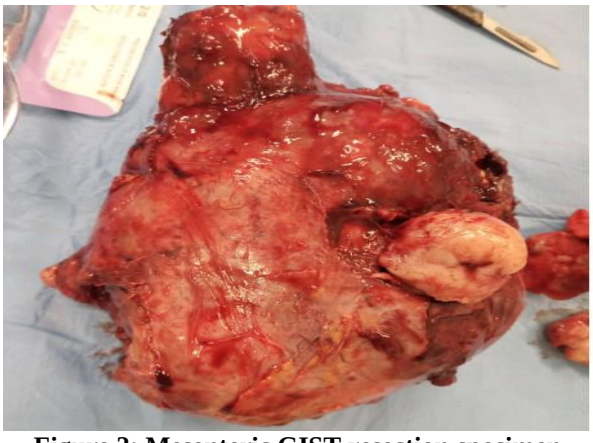

Figure 2: Mesenteric GIST resection specimen

DISCUSSION

In our study the patient was 37 years old and male. GISTs occur in adults at any age, but rarely before the age of 40, with a peak frequency around 50-60 years and a sex ratio close to 1 [3].

The site of GIST was initially pancreatic, and mesenteric for recurrence. According to the authors, around 60% of GISTs are found in the stomach, 30% in the small intestine, and around 5% in the colon or rectum [3].

After a break in adjuvant treatment, there was a recurrence with hepatic localization. Despite the introduction of imatinib, several CT scans carried out over 3 years revealed progressive lesions. The attitude proposed by expert surgeons is to carry out a CT scan every 2-3 months and to operate when the tumour volume is smallest, or after stability on 2 consecutive scans, after a treatment of the order of 6 to 12 months, which enables a maximum objective response rate to be obtained [4].

For localized GISTs, depending on the primary location, size and mitotic index (the most important parameter) assessed on 5 mm², the risk of recurrence may be virtually nil, or even exceed 70% [5]. Moreover, tumour rupture into the abdominal cavity, whether spontaneous or intraoperative, increases the risk of peritoneal recurrence [6].

The diagnosis of GIST has been evoked by CT scans, as in the case of authors who consider that CT scans are the usual means of evoking the diagnosis in the case of large tumours, and more rarely in the case of GISTs of limited diameter [3].

We performed a complete resection of the mesenteric GIST. According to the authors, for extra-gastric GISTs, resection is the rule, whatever the size, because of the risk of evolution.

Histological diagnosis was made on the operative specimen, in accordance with the attitude of authors for whom it is made either on biopsy or on the operative specimen [1, 2].

CONCLUSION

GISTs remain rare tumours in adults, arising mainly in the stomach and small intestine, but also in the mesentery, and are diagnosed histologically. In cases of recurrence with metastasis, complete resection of the tumour or even of the metastasis and adjuvant treatment is the recommended approach.

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