

Case Report

Small bowel stromal tumour revealed by a lower gastrointestinal bleeding

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Received: 28 January 2016

Accepted: 05 March 2016

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ABSTRACT

Small bowel stromal tumour must be systematically researched in the presence of obscure and persistent low gastrointestinal bleeding despite a normal endoscopic examination (OGDF and colonoscopy). Video capsule endoscopy is the best diagnosis examination; if it is not available a CT enterography could be useful. Surgical treatment is effective on localized and weak malignancy small bowel stromal tumours.

Keywords: Small bowel, Stromal tumour, Low gastrointestinal bleeding, CT enterography, Video capsule endoscopy

INTRODUCTION

Gastrointestinal stromal tumor or (GIST) (Gastrointestinal Stromal Tumor) is a mesenchymal tumor. However they are different from other mesenchymal tumor because of the revelation of expression by tumoral cells of proto-oncogene, c-kit protein (CD 117).¹ The small bowel stromal tumors come in second position (20-30%) in the GIST localizations, after the gastric seat (60-70%); they are more frequently located in the jejunum.^{2,3} Their clinical symptomatology is polymorphic, their diagnosis is late and sometimes fortuitous.^{4,5} The complete tumor surgical resection in one piece (R0 resection) is the only treatment of the localized GIST.⁶ The GIST malignancy potential is difficult to assess. It depends on their size, their mitotic index and their seat. The stromal tumors prognosis has been improved since the discovery of none "chemotherapy" treatment of the malignant forms, Imatinib (STI 571 or Glivec*) which is a tyrosine kinase molecule inhibitor.⁷

CASE REPORT

A 43 years old man has been admitted into emergencies for rectorrhagia and recurring melena arising since the day before. Three years ago, the patient had low gastrointestinal hemorrhage phases which ceased spontaneously. Their cause has not been found. Indeed, simple and double contrast barium enema had not revealed any abnormality of the intestinal mucous; the œso-gastro-duodenal fiberscopy had found a gastric bulb ulcer which had been treated and declared cured; complete colonoscopy had shown a right colic diverticulosis without any bleeding sign. Examination at the entrance showed an apyretic, asthenic patient, in a hemorrhagic state of choc with a normal abdomen. The œso-gastro-duodenal fiberscopy did not show gastro-duodenal ulcer. The total colonoscopy in emergency has shown two right colics diverticulosis with a blood clot. The small bowel transit and the CT enterography were not available in emergency. The hemorrhage was attributed to the right colics diverticulosis bleeding. The

patient has been admitted in the digestive and visceral surgical department for monitoring. A medical treatment based on hemostatic has been administrated with success. However, the appearance five days later of another bleeding phase, threatening the vital prognosis has led to the undertaking of a laparotomy in emergency. The operating exploration has revealed two right colon inflammatory diverticulosis; a rounded exophytic jejunal tumour; measuring 04 cm of big axis, seated at 12 cm of the Treitz angle. A 10 cm jejunal resection removing the jejunal tumour has been carried out; followed by an end to end jejuno-jejunal anastomosis. Then a right colectomy followed by an ileo-colic anastomosis which has been carried out. The operating follow-ups were simple and the patient was authorized to leave ten days later. The histologic analysis and the jejunal lesion immuno-histo-chemical research have resulted in a small bowel GIST with low malignancy risk due to its size ≤ 05 cm, low number of mitosis ≤ 3 and absence of mutations; the jejunal resection margins were safe. The tumoral cells were frankly expressing CD 34 and C-kit, slightly smooth muscular actin and PS100 but no caldesmone and desmine at the immuno-histo-chemistry.

The anatomo-pathologic examination of the right colectomy part has concluded to colic diverticulosis. A clinical and CT monitoring has been put in place. No local or metastatic recurrence has been reported after 36 months of regression.

DISCUSSION

Our observation reveals a fortuitous discovery of a small bowel (GIST), synchronous of a hemorrhagic phase attributed to an old right colic diverticulosis. Diagnostic difficulties are analyzed as well as the prognosis of the small bowel stromal tumor. The small bowel GIST revelation mode can be abdominal pains in 74% of the cases, an abdominal mass in 72% of the cases, an exteriorized or not digestive hemorrhage in 44% of the cases, a stenosis in 16% of the cases and a perforation in about 8% of the cases.⁴ The discovery of the small bowel GIST can equally be fortuitous during the regression phase of a morphological examination or of a surgical intervention.⁵ The long history of low unexplained digestive hemorrhage of a patient having a colic diverticulosis should have drawn attention on the small bowel. Indeed small bowel tumours represent the second cause of unexplained digestive hemorrhage (5 to 10% of cases), after the angiodysplasia (15.8%) according to a recent retrospective study of 562 videos capsules endoscopies.⁸ This would have led to further investigations and to request a for a small bowel transit, or even of a CT enterography. The small bowel transit remains the first intent examination in the small bowel connective tumors.⁹ Classically, a tumour with an exo-luminal development like in our observation makes an extrinsic imprint on the bowel. The sensitiveness of the small bowel transit is improved by the double contrast and optimized by enteroclysis.¹⁰ The CT enterography

allows us a better view of the stromal tumours which have the distinctive characteristics to be accentuated at the arterial phase.¹¹ The CT enterography outdoes the small bowel transit by revealing small size endo-luminal stromal tumour, but the exo-luminal tumours can go unnoticed.¹⁰ It also allows us to do a checkup of the extension of the stromal tumour. However, the CT enterography is limited by its poor tolerance and its low reproducibility.¹¹ The endoscopic capsule video is a non-invasive examination, able to display the entirety of the small bowel mucous.¹² The endoscopic capsule video, unavailable in our country, is actually the best means for exploring unexplained digestive hemorrhages.⁵ The small bowel tumour diagnostic is most of the time fortuitous, during the regression phase of a surgical intervention for another cause like illustrated by our observation. The digestive hemorrhage can be due to mucous ulceration which was not revealed by the anatomo-pathological examination in our observation; this leads us to believe that the low digestive hemorrhage could be caused by a bleeding of the right colic diverticulosis.⁹ The best treatment for the localized (GIST) is the surgery which involve a resection of the lesion with a security margin of 4-8 cm. However, the best security margin is defined by extemporaneous examination. We have observed a resection margin of 6 cm in order to be sure that we are in the safe zone since the extemporaneous examination is not available to us. The diagnostic rests upon the histological examination which makes the stromal tumours diagnostic, and upon the immunohistochemistry which allows us to individualize the stromal tumours, from the schwannosarcoma and the leiomyosarcoma. The prognosis of the digestive stromal tumours is difficult to assess.¹³ The classical malignancy two predictive factors are the mitotic index and the tumour size; these factors allow us to distinguish between low risk malignancy, moderate risk malignancy and high risk malignancy stromal tumours.¹⁴ The retrospective analysis of the recent series has confirmed these data, and has introduced another predictive factor: the tumour seat with a pejorative risk for the small bowel localization.¹⁵ However, there is no consensus on the thresholds allowing us to distinguish between these tumours with an evolving low, moderate and high risk; the recurrence is possible within the first five years or later.¹⁴ The recurrence risk after the R0 surgical resection has been estimated at 4.3% for the jejuno-ileal tumours of a size between 2 and 4cm with a mitotic index < 5 like in our observation.¹⁵ A clinical and radiological monitoring becomes necessary to search for a malignant degeneration. Presently, there is no consensus on the monitoring methods and duration. No local or metastatic recurrence has been noted in our patient after 36 months of regression.

CONCLUSION

The small bowel stromal tumors must be systematically researched in presence of any unexplained digestive hemorrhage by carrying out a video capsule endoscopy or

if there none by an enterography CT. The presently uncertain prognosis, make it necessary to have a rigorous monitoring in the search for malignant degeneration.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Kassi ABF, Lebeau R, Kacou YS, N'dah KJ, Traore M. Small bowel stromal tumour revealed by a lower gastrointestinal bleeding. *Int J Res Med Sci* 2016;4:1248-50.