

Stromal tumour of the stomach

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Stromal tumours of the stomach originate in the mesenchymal elements of the gastric wall and express the CD-117 protein.¹ They are submucosal and may be classified according to their morphologic features: endogastric (the most frequent type, in which the bulk of the tumour projects into the gastric lumen), exogastric (in which the tumour projects into the peritoneal cavity), combined endo- and exogastric, and intramural.² The peak incidence is in the sixth decade.² Although mostly benign, these tumours exhibit a spectrum of clinical behaviour that may be difficult to predict even on the basis of histologic examination.¹ I describe here a case of an endogastric stromal tumour associated with localized serosal hyperemia.

Case report

An 82-year-old man presented with a 2-week history of melena and a hemoglobin level of 86 g/L; he had had a similar episode 1 year previously, but no investigations had been done. He was otherwise asymptomatic, and routine blood test results were within normal limits. Endoscopy revealed a 4-cm submucosal mass with adherent clot located on the anterior aspect of the gastric antrum (Fig. 1).

On the basis of the morphology and clinical presentation, a stromal tumour was diagnosed. CT scan of the abdomen showed that the lesion enhanced with intravenous injection of contrast medium and was mildly heterogeneous. There was no nodal involvement or intra-abdominal spread. A chest radiograph appeared normal.

The patient underwent a wedge resection of the stomach through an upper midline laparotomy. An area of serosal hyperemia on the anterior gastric wall helped identify the location of the tumour (Fig. 2). His postoperative course was uncomplicated and he was discharged 8 days postoperatively. Pathological examination of the excised specimen (Fig. 3) confirmed a CD-117-positive stromal tumour with 1 mitosis per 50 high-power fields and no necrosis. The resection margins were tumour-free. The patient was well 1 month after surgery, but declined further follow-up.

Discussion

Some clinical features in patients who



FIG. 1. Endoscopic view shows typical endogastric stromal tumour with mucosal bridging (Schindler's sign) and adherent clot in the gastric antrum.

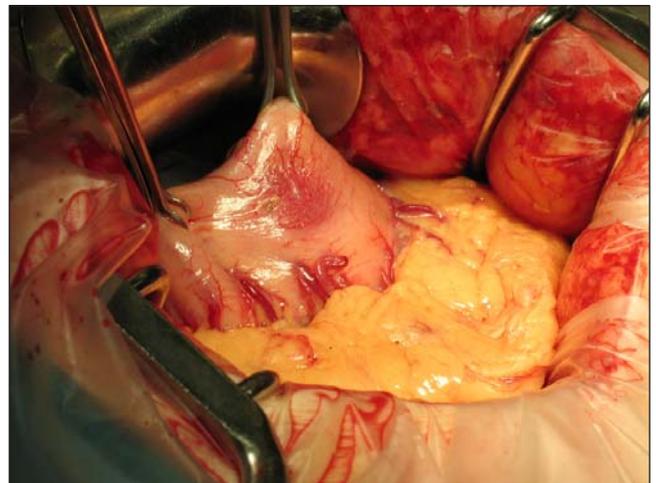


FIG. 2. Intraoperative view shows serosal hyperemia on the anterior gastric wall, identifying the location of the tumour.

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FIG. 3. Resected specimen.

have gastric stromal tumours may suggest malignancy. In the review by Davis and associates,² most malignant tumours (64%) were exogastric, whereas most benign tumours (62%) were endogastric; a location on one of the curvatures of the stomach was more likely to be associated with malignant disease, whereas most benign tumours were located on either the posterior or anterior gastric walls.² Whether the tumour is benign or malignant, the patient presents typically with hemorrhage (55%)^{2,3} or abdominal pain (around 35%)^{2,3}; however, significantly more malignant tumours present with a mass or weight loss, and they are less likely to be discovered incidentally.^{2,3} Metastatic spread is usually to the liver or peritoneum; lung and bone metastases are rare.¹

Gastroscopy typically shows a submucosal mass with bridging mucosal folds (Schindler's sign), but endoscopic biopsy is diagnostic in less than 50% of cases. CT and barium studies may reveal central tumour necrosis with air bubbles or a sinus in cases of malignant disease.² Endoscopic ultrasonography with biopsy has the highest diagnostic accuracy for gastric stromal tumours; malignant disease is suggested by heterogeneity, irregular margins, ulceration and a sinus.²

Treatment of localized tumours is by resection with tumour-free margins.¹⁻³ Lymph node metastases are rare, and routine lymphadenectomy is not indicated.¹ Although this patient underwent a laparotomy, successful endoscopic and laparoscopic resections have been described.^{4,5} In the review by Lin and associates³ of 91 gastrointestinal stromal tumours, of which 54% were gastric, postoperative survival correlated with tumour size and mitotic index. The 5-year disease-free survival was around 90% in the groups defined as low or very low risk (< 5 cm in dimension and < 5 mitoses per 50 high-power fields) but fell to 20% in the high-risk group, characterized by large tumours with a high mitotic index.³ According to the morphologic, radiologic and histologic criteria, our patient's tumour was most likely benign, and thus the prognosis is excellent. Interestingly, I could not find any description in the literature of localized serosal hy-

peremia associated with an endogastric stromal tumour. The significance of this finding is unclear.

In summary, stromal tumours are uncommon and usually benign lesions, although their clinical behaviour may be unpredictable. Some characteristics should alert the surgeon to the possibility of an aggressive lesion. Consequently, most localized tumours should be resected.³

Competing interests: None declared.

References

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