

# Enucleation of ulcerated gastric lipoma after massive melaena

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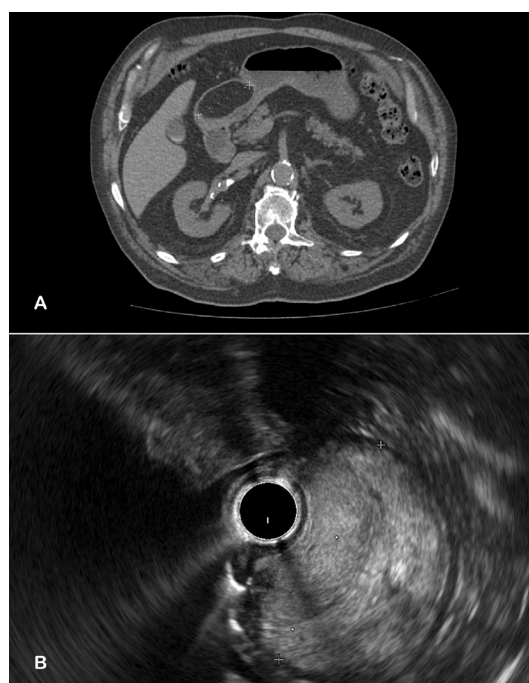
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## DESCRIPTION

A 79-year-old man with medical history of coronary artery disease and atrial fibrillation treated with anticoagulant drugs was admitted to the emergency department with an episode of massive gastrointestinal haemorrhage presenting as melaena. On examination, he was haemodynamically unstable. The abdomen was painful on the upper quadrants and rectal examination confirmed melaena. Analysis revealed a haemoglobin level of 50 g/L. The patient was stabilised with supportive measures and two-unit red blood cells transfusions. The post-transfusion haemoglobin level was 90 g/L. Upper endoscopy revealed submucosal ulcerated tumour arising from the antrum. The CT scan revealed a well-encapsulated and fat-attenuated lesion (−90 Hounsfield units) in the gastric antrum, measuring 6.2×3.3 cm (figure 1A and video 1). Endoscopic ultrasound confirmed the presence of submucosal hyperechoic lesion measuring 9×4 cm without evidence of perigastric lymph node enlargement (figure 1B). Biopsy was inconclusive. The patient underwent gastrotomy with tumour enucleation (figure 2). Postoperative recovery was uneventful. There was no bleeding recurrence during follow-up.



**Figure 1** (A) CT scan revealed a well-encapsulated and fat-attenuated lesion in the gastric antrum. (B) Endoscopic ultrasound showing the submucosal hyperechoic gastric lesion.



**Figure 2** (A) Stomach wall showing the position of the lipoma. (B) Gastrotomy with tumour enucleation.

Histological examination confirmed the diagnosis of submucosal lipoma with 9.5×4.8×2.5 cm and ulceration.

Lipomas account for 1%–3% of all gastric tumours.<sup>1–3</sup> They represent 5% of all gastrointestinal tract lipomas.<sup>2</sup> Lipomas are mainly found in women.<sup>4</sup> They are most prevalent between the fifth and seventh decades of life.<sup>4</sup> Gastric lipomas are usually solitary.<sup>4</sup> In 75% of cases, they are found in the antrum but can arise from every part of the stomach.<sup>4,5</sup>

Small lipomas (<2 cm) are usually asymptomatic and can be incidentally identified during a radiological or endoscopic examination.<sup>2</sup> Larger ones (>4 cm) can manifest clinically with gastric outlet obstruction, gastroduodenal intussusception or upper gastrointestinal bleeding due to mucosal erosion.<sup>1,2,4,6</sup>

Upper gastrointestinal endoscopy usually reveals a submucosal mass with three signs that help establishing the diagnosis: pillow sign, tenting sign and a naked fat sign.<sup>1</sup> Most lipomas are submucosal (95%), which means regular mucosa biopsies are inconclusive.<sup>3,4,6</sup> Endoscopic ultrasound reveals a hyperechoic, homogeneous and well-circumscribed submucosal lesion.<sup>1,7</sup> CT scan reveals a well-circumscribed homogeneous submucosal mass with an attenuation value of −70 to −120 Hounsfield units which is pathognomonic of gastric lipomas.<sup>8,9</sup>

Simple excision of the lesion is usually adequate since recurrence rates are low.<sup>9</sup> Asymptomatic and indolent gastric lipomas can be managed without intervention.<sup>3,10</sup> Large (>4 cm) and symptomatic tumours were traditionally treated with laparoscopic or open surgery such as enucleation or even partial gastrectomy.<sup>1,10,11</sup> Nowadays, endoscopic submucosal dissection (ESD) has become a technically feasible and safe alternative to conventional surgery for removal of large lipomas.<sup>12–14</sup> Nevertheless, a case of obstructive symptoms has recently been reported after a large lipoma (8×6 cm)



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**Video 1** CT scan axial view revealing a well-encapsulated and fat-attenuated lesion in the gastric antrum.

resected with ESD was left in the stomach for digestion by gastric secretions.<sup>15</sup>

Our patient underwent gastrotomy with enucleation of a submucosal ulcerated lipoma with 9.5×4.8×2.5 cm after an episode of massive gastrointestinal haemorrhage. In certain cases, however, endoscopic removal offers a less invasive option with quicker recovery compared with laparoscopic or open surgery.<sup>14</sup>

### Learning points

- ▶ Small gastric lipomas (<2 cm) are usually asymptomatic and can be incidentally identified during a radiological or endoscopic examination. Larger gastric lipomas (>4 cm) can manifest with upper gastrointestinal bleeding due to mucosal erosion, gastric outlet obstruction or gastroduodenal intussusception.
- ▶ CT scan revealing a well-circumscribed homogeneous submucosal mass with an attenuation value of –70 to –120 Hounsfield units is considered pathognomonic of a gastric lipoma.
- ▶ Asymptomatic and indolent gastric lipomas can be managed without intervention, while symptomatic lesions should be removed by endoscopy or surgery.

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