

Perforation of the greater gastric curvature by a gastric adenocarcinoma with engulfment of the upper pole of the spleen



► **Fig. 1** Abdominal and pelvic computed tomography scan performed before oeso-gastro-duodenal endoscopy. **a** Arrowhead showing the gastric lesion in the pyloric region. **b** Arrowhead showing secondary splenic lesion. **c** Arrowheads showing secondary liver lesions.

Perforated gastric cancer is a rare condition [1]. It has an extremely poor prognosis. There are few data in the literature regarding perforated gastric adenocarcinoma involving the spleen [2]. We report here the case of a 66-year-old woman who was admitted to our department with general deterioration, right hypochondrium pain, and anemia of 7.5 g/dl. An abdominal and pelvic computed tomography was performed, revealing a large necrotic mass with irregular contours of the greater curvature of the stomach, measuring 10.3×5.7 cm, and multiple colomesenteric, epiploic, and retroperitoneal (left lateral renal) lymph nodes. Three hypodense irregularly contoured hepatic nodules in segment IV and in the left liver were found as well, highly suspicious of secondary locations given the context. There was also a cystic splenic nodule, suspected of being a metastatic lesion (► **Fig. 1**).

An oeso-gastro-duodenal endoscopy was performed under general anesthesia. A blocked gastric perforation (of almost the whole greater curvature) was found at the lower part of the fundus and at the antrum. Inside the cavity, fibrinous debris and the upper pole of the spleen were found (► **Video 1**). Cautious biopsies were performed.

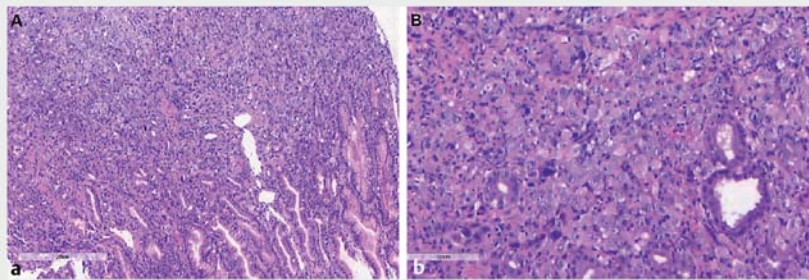


► **Video 1** Diagnostic gastroscopy of gastric adenocarcinoma with perforation and engulfment of the upper pole of the spleen.

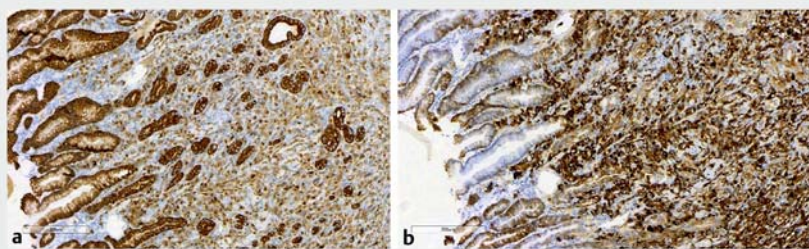
Histological examination revealed a very superficial gastric mucosa, with no muscularis mucosa, partly occupied by structures of a poorly differentiated neoplasm. On immunohistochemistry, the neoplastic cells had an epithelial phenotype, and antibodies directed against pankeratin AE1/AE3 and keratin 7 were positive. Carcinoma cells were negative for Cdx2 and HER2 (► **Fig. 2**, ► **Fig. 3**).

Perforated gastric cancer does not appear in the literature to alter the oncological prognosis if it is treated with two-step surgery [1,3]. In this case of advanced perforating and metastatic disease, only palliative treatment was considered after discussion in a multidisciplinary team meeting.

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► **Fig. 2** Histological section of the gastric biopsies, hematoxylin-eosin stain. **a** Gastric mucosa infiltrated by adenocarcinoma, magnification $\times 5$. **b** Adenocarcinoma cells: poorly differentiated appearance, cells in trabeculae or clumps, no glandular formation (the glands visible are those of the residual mucosa); magnification $\times 20$.



► **Fig. 3** Immunostaining on gastric biopsies. **a** Immunostaining for anti-pankeratin antibody: strong labeling of normal glands, weaker labeling of adenocarcinoma cells; magnification $\times 10$. **b** Immunostaining for anti-keratin 7 antibody: strong labeling of adenocarcinoma cells (in favor of upper digestive origin of adenocarcinoma); magnification $\times 10$.

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Competing interests

The authors declare that they have no conflict of interest.

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