

Gastric Kaposi's sarcoma simulating gastric lymphoma during endoscopic ultrasound examination

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We present a 27-year-old male with severe watery diarrhea and three bouts of melena in the last 2 months. Upper endoscopy revealed diffuse nodular mass lesions extending from the gastroesophageal (GE) junction to the end of the body of stomach, easily bleeding upon touch [Figures 1-3]. *Helicobacter pylori* urease test was positive. Colonoscopy with terminal ileoscopy was free. Our first possibility was lymphoma but histopathology revealed chronic active gastritis with intestinal metaplasia, mild atypical and fibrocellular lamina propria, no mitotic

activity. There are several bites of the gastric wall showing an intact hyperplastic surface covering [Figure 4]. Numerous slit-like blood vessels and spindle cell population were seen infiltrating the muscularis mucosa. Numerous extravasated red blood cells were seen in the lamina propria [Figure 5]. Immunohistochemical staining was negative for cytokeratin, CD117, and CD31 and positive for CD34 [Figure 6].

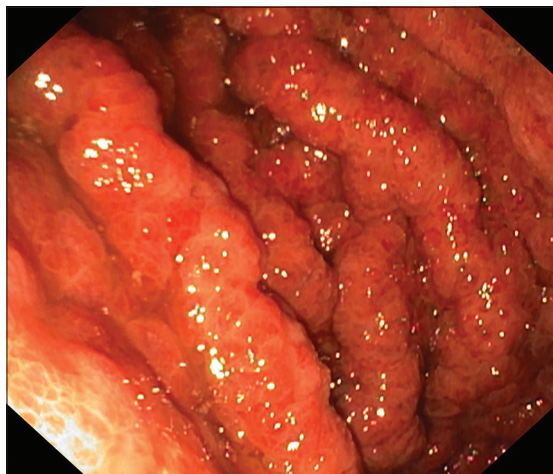


Figure 1. Large nodular mass extending from the gastroesophageal junction to the proximal gastric body by upper endoscopy

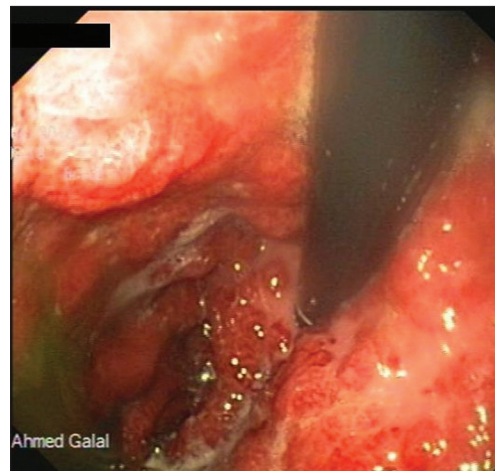


Figure 2. Large nodular mass occupying most of the circumference of the proximal gastric body and fundus as seen by the retroverted endoscope

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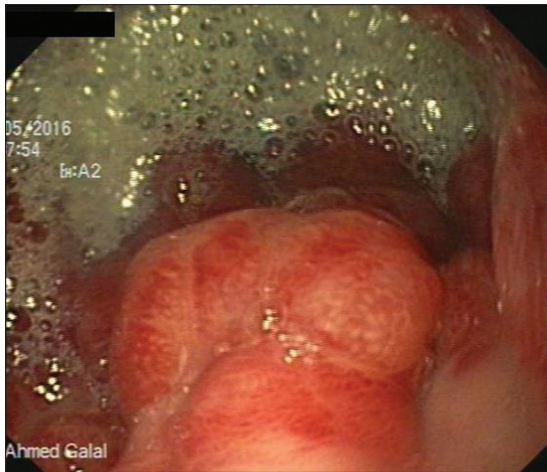


Figure 3. Large nodular mass by upper endoscopy

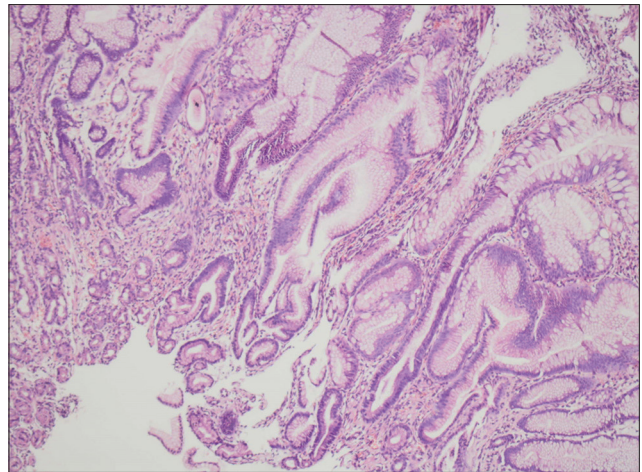


Figure 4. Section of the gastric biopsy featuring the proliferating spindle cell population in between the hyperplastic foveolar portion of the epithelium (H and E, ×200)

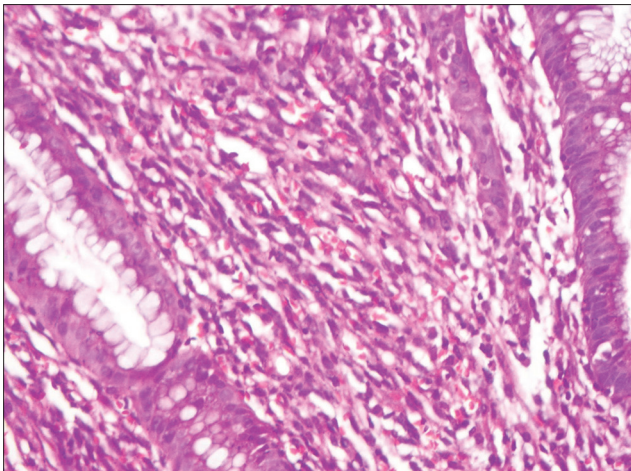


Figure 5. High-power view showing dark elongated nuclei and the slit-like vascular spaces lined by a single layer of flat endothelium in between these spindle cells (H and E, ×400)

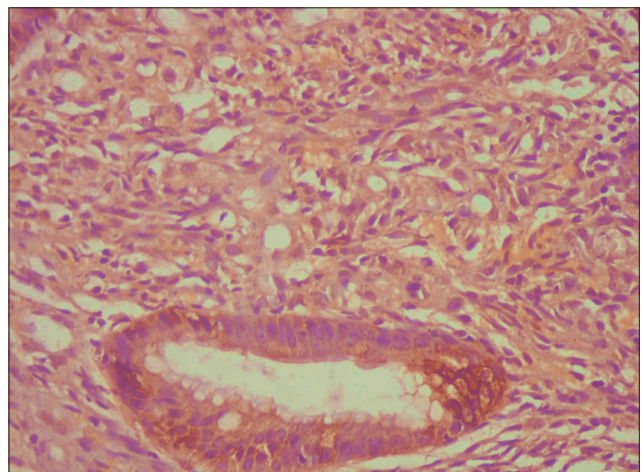


Figure 6. Immunohistochemical staining for CD34 showing positivity in the walls of the vascular spaces as well as the spindled cells

Endoscopic ultrasound (EUS) shows nonhomogeneous thickening of most of the circumference of gastric fundal and body wall (13 mm in diameter) involving the mucosa, muscularis mucosa, and submucosa with preserved muscularis propria and serosa [Figure 7a and b]. Fine-needle aspiration from one abdominal lymph node, 1 cm [Figure 8], and thickened gastric wall revealed the same results.

HIV-antibody was positive. HIV polymerase chain reaction was 738,000 IU/mL and CD4 count was 20 (570–1840) cells/mm³. Hence, the diagnosis of Kaposi's sarcoma (KS) was made according to the combined histopathological, immunohistochemical, and serological studies with negative cytokeratin, CD117, and CD31 and positive CD34 that tends to show stronger expression than CD31 in advanced-stage lesions of KS.^[1]

KS is a low-grade vascular tumor predominantly present at mucocutaneous sites and less commonly affects the gastrointestinal tract; however, it is the most common gastrointestinal malignancy in patients with AIDS.^[2,3]

Marked circumferential wall thickening of the stomach commonly occurs in gastric lymphoma and signet ring adenocarcinoma and less commonly in Menetrier disease and eosinophilic gastroenteritis. It also occurred in our case with KS, wall thickness of 13 mm, so it was mistaken for gastric lymphoma and diffuse type adenocarcinoma. Hence, though rare, KS should be included in the differential diagnosis of significant diffuse gastrointestinal wall thickening during EUS examination. Our case is similar to those described by Zoller *et al.*^[4] but differs in that there was

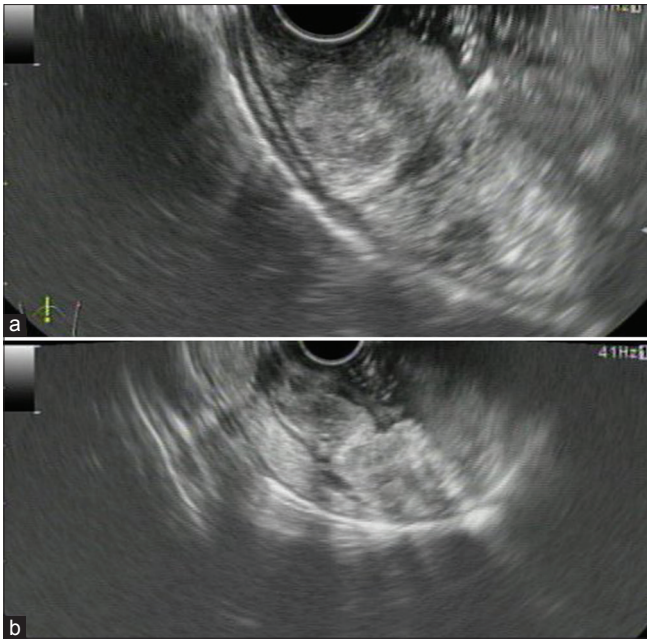


Figure 7. (a and b) Endoscopic ultrasound shows thickened gastric wall involving the innermost three layers (mucosa, muscularis mucosa, and deep mucosa) with preserved muscularis propria

circumferential wall thickening and continuous lesion from the GE junction to the end of the body of stomach. EUS is a great useful tool in detecting the extent of the tumor and diagnosis of endoscopically negative or inconclusive cases.^[4]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given his consent for his images and other

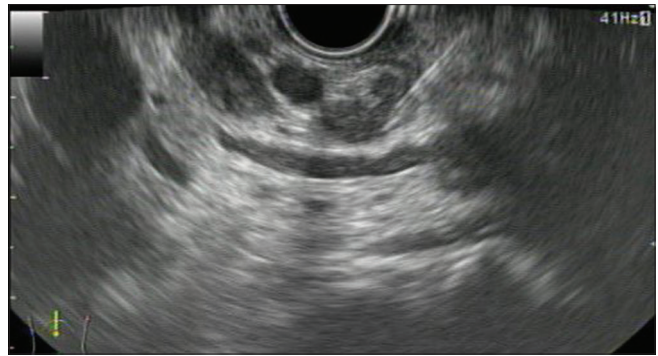


Figure 8. Endoscopic ultrasound-fine needle aspiration from a small perigastric lymph node

clinical information to be reported in the journal. The patient understand that his name and initial will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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