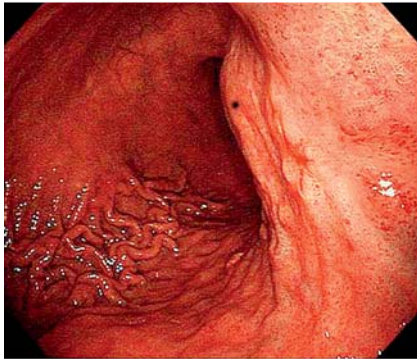


## Gastric tuberculosis resembling depressed type, early gastric cancer



**Fig. 1** Esophagogastroduodenoscopy (EGD) showing a depressed lesion with converging folds on the posterior wall of the upper gastric corpus in a 60-year-old asymptomatic man.



**Fig. 2** EGD with chromoendoscopy revealed an irregularly shaped, depressed lesion of which the anal portion appeared to resemble a whitish nodule (arrow).



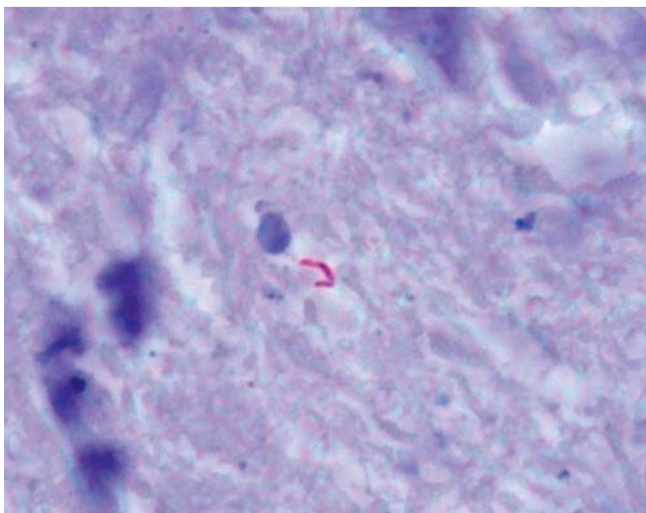
**Fig. 3** Image enhanced endoscopy with magnifying narrow-band imaging demonstrating the spiral-shaped, dilated small vessels or microvessels with an amorphous surface.



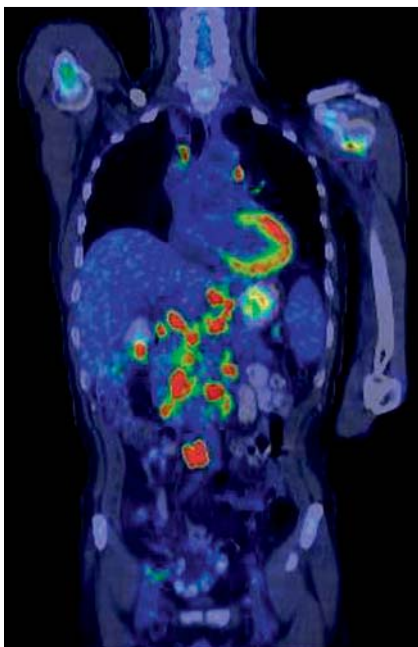
**Fig. 4** Endoscopic ultrasonography (EUS) demonstrating a hypoechoic lesion localized in the deep portion of the mucosa and the superficial submucosa.

A 60-year-old asymptomatic man was referred to our hospital for evaluation of a gastric lesion detected by esophagogastroduodenoscopy (EGD) in a medical check-up. EGD showed an irregularly shaped, depressed lesion with converging folds on the posterior wall of the upper gastric corpus (◉ Fig. 1, ◉ Fig. 2). Magnifying endoscopy with narrow-band imaging at the anal portion of the lesion revealed spiral-shaped, dilated small vessels/microvessels with an amorphous surface (◉ Fig. 3). Endoscopic ultrasonography (EUS) demonstrated a hypoechoic lesion localized in the deep portion of the mucosa and the superficial submucosa (◉ Fig. 4). A biopsy from the lesion showed granulomatous inflammation with caseous necrosis and Langerhans giant cells. Acid-fast bacilli were detected by both Ziehl-Neelsen staining (◉ Fig. 5) and mycobacterium culture. A polymerase chain reaction test for tuberculosis was also positive. Fluorine-18 fluorodeoxyglucose positron emission tomography (PET) showed markedly increased accumulation in the lymph nodes of the mediastinum, pulmonary hilum, and upper abdomen (◉ Fig. 6). Chest computed tomography (CT) revealed no evidence of pulmonary tuberculosis. Colonoscopy, small-bowel capsule endoscopy, and bronchoscopy showed normal findings. Biopsy from the inguinal lymph node demonstrated non-specific inflammation without any neoplastic cells or granulomas. Thus, the patient was diagnosed as having gastric tuberculosis with systemic lymphadenopathy, and subsequently underwent anti-tuberculous treatment. Both the gastric lesion and lymphadenopathy had resolved 6 months later.

Gastric tuberculosis is rare, and its endoscopic appearance can vary [1–4]. To confirm a definitive diagnosis of tuberculosis, EUS-guided, fine-needle aspiration or surgery is sometimes required [1,4,5]. The gastric lesion in our case resembled depressed-type, early gastric cancer endoscopically; however when the amorphous area (probably composed of inflammation or granulation tissue covered with thin epithelium) was viewed using magnifying endoscopy with narrow-band imaging, it was clearly different from that of gastric cancer. We thus consider that magnifying endoscopy with narrow-band imaging is useful in the differential diagnosis between gastric tuberculosis and gastric cancer.



**Fig. 5** Histologic image of a biopsy specimen from the gastric lesion showing acid-fast bacilli (Ziehl-Neelsen stain, magnification: × 1000).



**Fig. 6** Fluorine-18 fluorodeoxyglucose positron emission tomography (PET) showing markedly increased accumulation in the lymph nodes of the mediastinum, pulmonary hilum, and upper abdomen.

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**Competing interests:** None

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