Eosinophilic gastroenteritis mimicking as a malignant gastric ulcer with lymphadenopathy as shown by computed tomography and endoscopic ultrasound

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A 44-year-old male presented with a history of occasional epigastric pain over a 1 year period. A gastroscopy was performed by another hospital, it was diagnosed as a gastric ulcer. He had received proton pump inhibitors for a period of 3 months with no relief to the symptoms. He had no history of appetite or weight loss, and there was no history of any co-morbidity or allergy. There was no history of alcohol intake, smoking, medications intake or peripheral eosinophilia. Undergoing a further gastoscopy revealed a deep ulcer without raised margins at the lesser curve near antrum and thickened folds in surrounding area [Figure 1], biopsies were suggestive of dense eosinophilic infiltration. A computed tomography (CT) scan was performed as he had deep ulcer and thickened gastric folds, it showed eccentric mural thickening of antro-pyloric region along the greater curvature, as well as ulceration and enlarged peri-antral and gastro hepatic ligament lymph nodes [Figure 2]. The possibility of malignancy was still a possible outcome and at this point could not be ruled out. Endoscopic ultrasound (EUS) was perform with FNA from lymph nodes and for better characterization of thickened folds. EUS showed a 5 mm deep ulcer, thickened gastric wall (up to 11 mm) in the area surrounding ulcer with the loss of wall layer pattern. The opposite wall was of normal thickness and wall layer pattern of the stomach [Figure 3] with perilesional lymph nodes measuring 5 mm to 1 cm [Figure 4]. EUS guided FNA of the lymph nodes was negative of malignancy. Repeat biopsies from the ulcer edges showed dense eosinophilic infiltrate [80-100 eosinophils per high-power field as shown in Figure 5]; *Helicobacter pylori* was negative. A diagnosis of eosinophilic gastroenteritis (EG) was made. He was given steroids in tapering doses, and he became asymptomatic at 2 months.

DISCUSSION

Eosinophilic gastroenteritis is a rare disease, it effects commonly parts of intestine, stomach and small intestine. EG can be divided into mucosal form (may present as pain, nausea, vomiting, diarrhea, fecal occult blood loss, anemia, or protein-losing enteropathy), muscular form

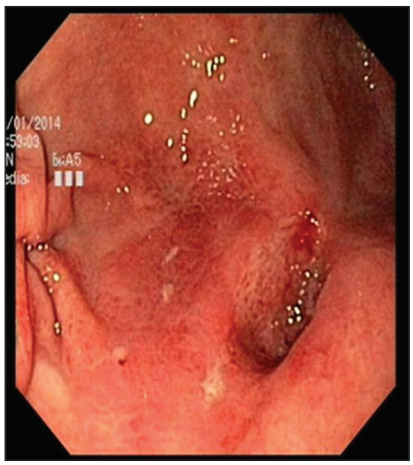

Figure 1. Endoscopy image showing deep ulcer

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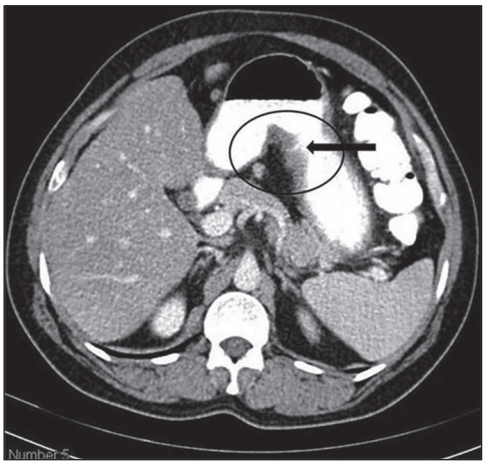

Figure 2. Computed tomography image showing ulcer at greater curve with focal gastric wall thickening and lymph node

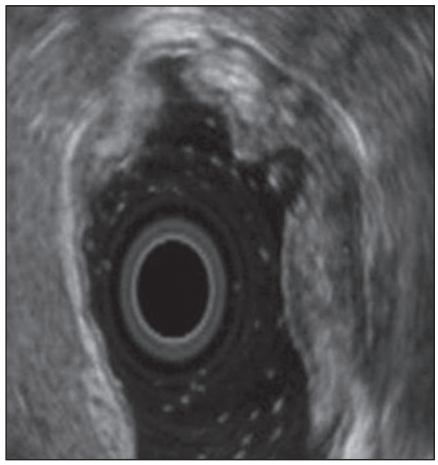

Figure 3. Radial endoscopic ultrasound image showing gastric ulcer with thickened folds and loss of wall pattern at surrounding area, opposite gastric wall shows normal echo-pattern

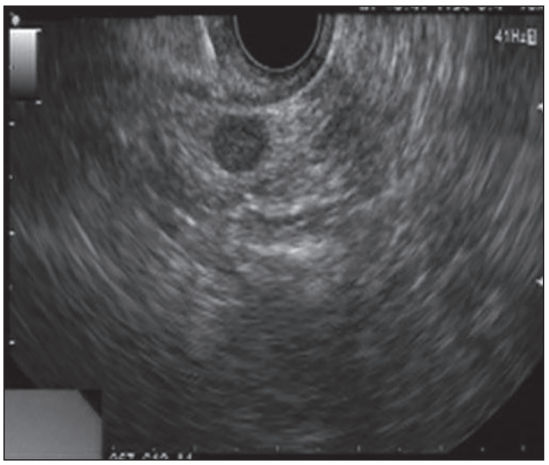

Figure 4. Linear endoscopic ultrasound image showing lymphadenopathy

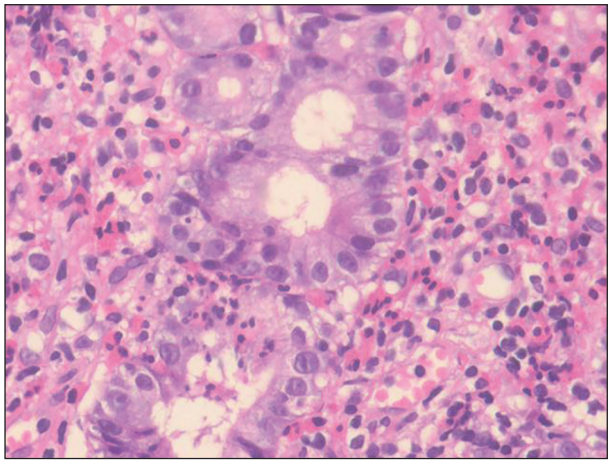

Figure 5. Biopsy from ulcer (H and E, ×40 times magnification) showing dense eosinophilic infiltrate (cells with pink cytoplasm)

(present as intestinal obstruction) and serosal form (present as ascites).[1,2] The presenting symptoms depend on the site and depth of intestinal involvement. In the present case, both CT and EUS suggested malignancy. EG may present as gross appearance of a malignant gastric ulcer, however presentation as gastric or duodenal ulcer is extremely rare. As EG lacks specific symptoms and may mimic malignancy (even surgery had been reported in EG patient for suspicion of malignancy),[2-4] it should be considered in the differential diagnosis of atypical cases as the present case which had a nonhealing gastric ulcer with the appearance of a malignant lesion, however, without constitutional symptoms of gastric malignancy. EUS in cases of EG may show thickening of mucosa and submucosa or normal wall layer pattern in cases of mucosal form of the disease.[5,6]

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