

CASE RECORD

Pathology Quiz

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Case Report:

23 year old male presented with vomiting and heartburn. Endoscopic examination revealed edematous gastric mucosa at antrum. Biopsy was taken and sent for histopathological examination. Images from endoscopy findings (Fig 1), H&E stained sections (Fig 2) and Giemsa stained sections (Fig 3).

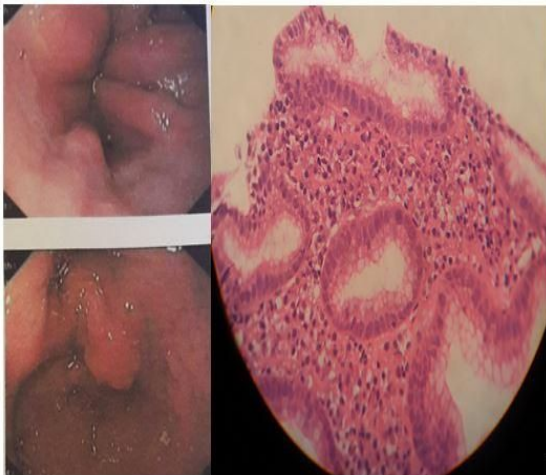


Fig1: Endoscopy image

Fig 2: H&E stain

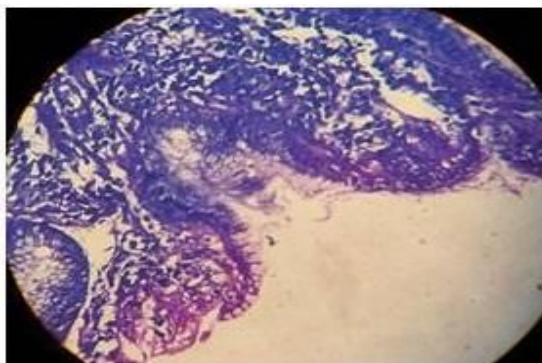


Figure 3: Giemsa stain

Diagnosis: Helicobacter Pylori gastritis

Discussion:

Helicobacter pylori frequently colonizes the gastric mucosa usually resulting in long term infection and chronic gastritis. The association between H. pylori infection and chronic gastritis was first noted by Warren and Marshall. (1) Clinically the symptoms include epigastric pain, a bloated feeling, nausea and occasional vomiting with mild constitutional symptoms.

H. Pylori is a curved or spiral shaped bacterium 2-4 micrometers in length with sheathed flagella at one end and occasionally at both ends. (1) The organisms are found consistently in the antrum but many infected patients have pangastritis with organisms and inflammation in both antrum and corpus. (2)

The principal and most obvious histological feature of H.Pylori gastritis is infiltration of the lamina propria of the superficial mucosa by plasma cells, lymphocytes and small number of eosinophil and neutrophils. (3)

H. Pylori are curved or s-shaped bacilli, recognized on routine H&E staining. They are found with in surface mucus layer and are easy to find in gastric pits. Special stains are necessary when screening

biopsies for H.Pylori. A modified Giemsa stain is simple and cheap and is satisfactory for routine use. The Warthin starry silver stain also gives satisfactory results. (4)

References:

1. Warren JR, Marshall B. Unidentified curved bacilli on gastric epithelium in active chronic gastritis. *Lancet*, 1983; 1 :1273.
2. Dixon MF. Recent Advances in gastritis. *Curr Diag Pathol*, 1994; 1:80.
3. Collins JSA, Hamilton PW, Sloan JM, Lori AHG. Superficial gastritis and Campylobacter Pylori I dyspeptic patients. A Quantitative study using computer based image analysis. *J Pathol*, 1989;158:303.
- 4.Gray SF, Wyatt J, Rathbone BJ. Simplified technique of examining campylobacter pyloridis. *J Clin Pathol*, 1986;39:1279.