Endoscopic Corner

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Case 1

A 47- year-old female presented to the hospital with dyspepsia, nausea and vomiting that increasing in severity. She also complained of decreasing in her appetite which made her body weight drop down 7 kgs during the past 3 months.

An EGD was done as pictures.

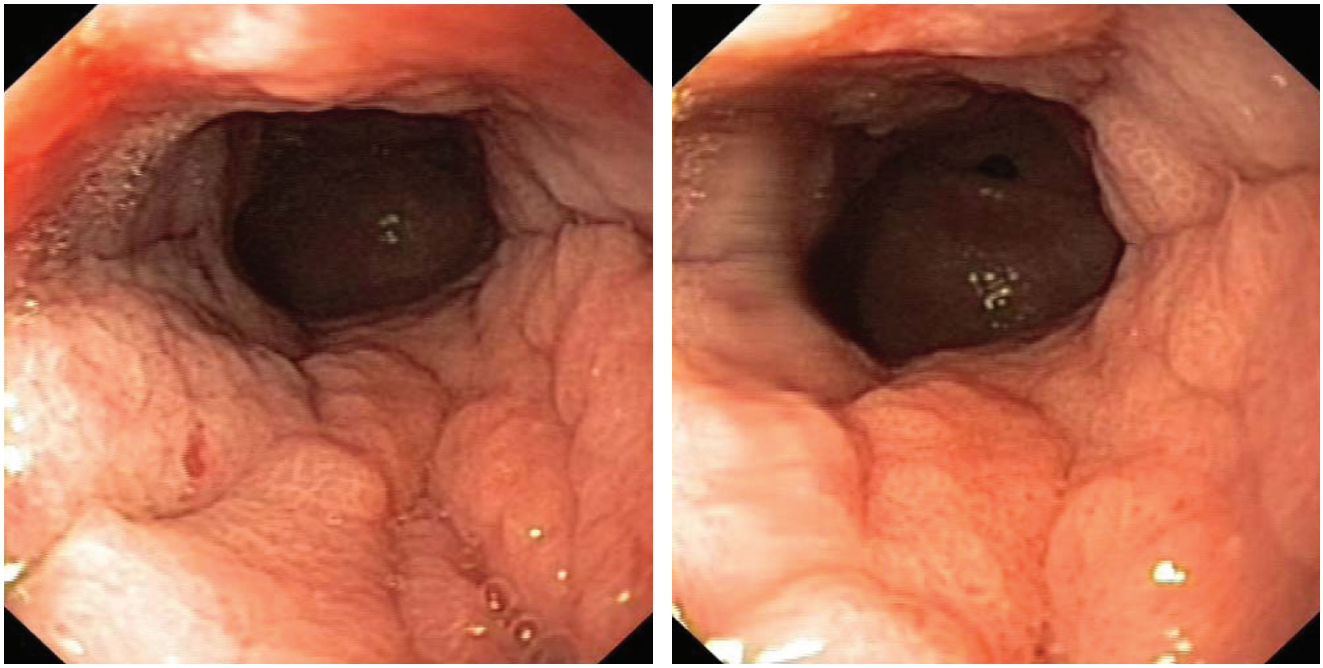

Figure 1-2.

Endoscopic findings showed, diffuse mucosal thickening, contact bleeding and poor distensibility of the gastric body. This process caused narrowing of the gastric lumen as leather bag (linitis plastica).

Biopsies from the body of stomach was done

Diffuse infiltration of atypical glands lining with cells (dark arrow) possess of pleomorphic nuclei with vacuolated cytoplasm, ulceration, necrosis and mitosis.

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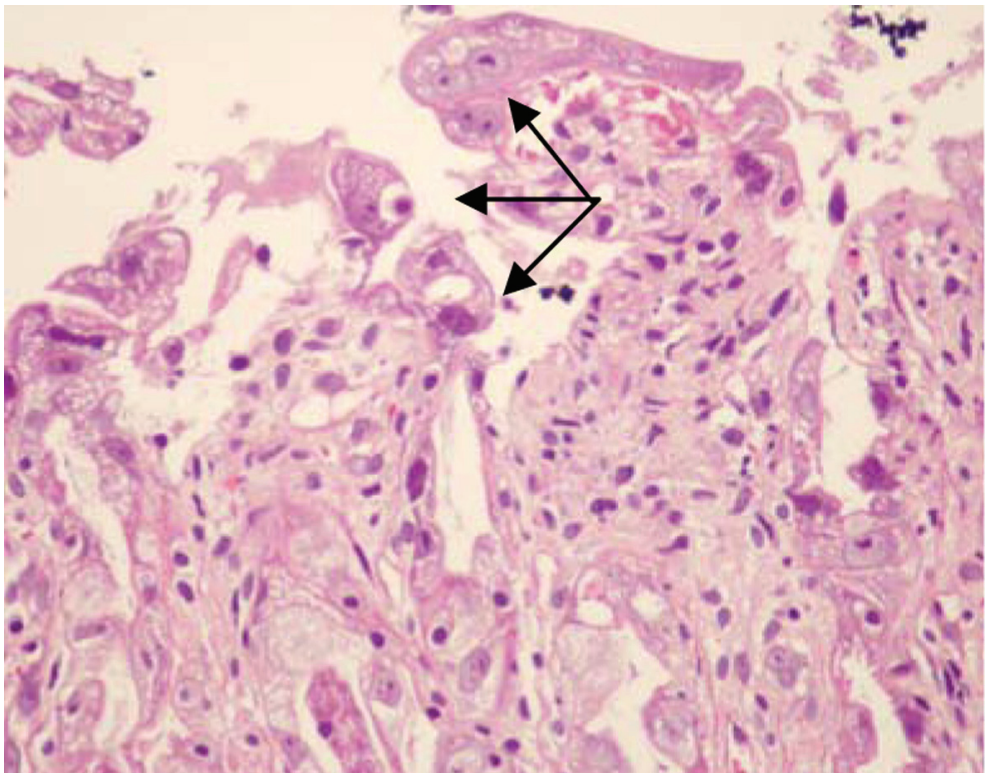

Figure 3.

Diagnosis

Poorly differentiated adenocarcinoma of the stomach causing linitis plastica. Differential diagnoses are; lymphoma, amyloidosis, post corrosive restriction of the stomach, Menetrier's disease, and radiation induced gastric retraction.

Discussion

Linitis plastica is a form of diffuse infiltrative gastric adenocarcinoma. This condition is marked by thickening and fibrosis of gastric wall like a leather bottle by having malignant cells being scarcely distributed in the fibrous stroma. Frequently, gastric mucosa is spared of malignant invasion, making an endoscopic diagnosis very difficult. The most common site of gastric linitis is the antrum and pyloric regions (with some variable spreading proximally towards gastric body). The fundus is least often involved[1].

Since macroscopic features do not often permit the distinction between benign and malignant lesions, multiple endoscopic biopsies are required. The CT scan and the endoscopic ultrasonography may be useful for a diagnosis of gastric linitis and also for the evaluation of the local extension[2]. Since Linitis plastica contains a very poor prognosis. Distant node metastasis and peritoneal seeding (carcinomatosis) make surgical excision rarely beneficial[3].

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CASE 2

A 50-year-old man with a history of advanced-stage malignant pancreatic neuroendocrine neoplasm of the pancreas presented with hematemesis for one day. He did not complain of abdominal pain. His vital signs were normal. Esophagogastroscopy was done as shown.

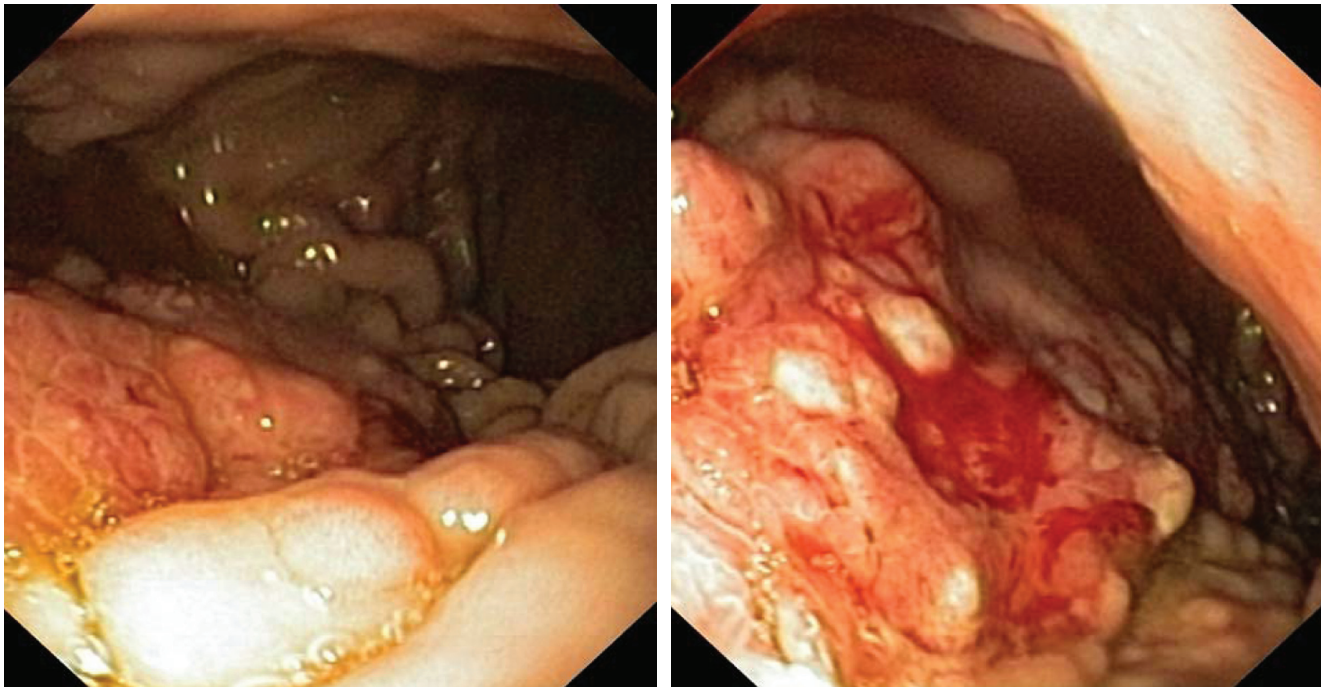

Figure 4-5.

In this case, EGD showed a large mass with friability protruding through the posterior wall and the greater curvature of the stomach. The normal gastric rugae pattern was loss. This was caused confirmed by histology as local invasion of malignant pancreatic neuroendocrine tumor.

Differential diagnoses

Gastric adenocarcinoma, gastric lymphoma, and other metastatic cancer.

Discussion

Pancreatic neuroendocrine tumors are rare and represent only 1-2 percents of all pancreatic tumors[1]. The World Health Organization (WHO) classifies this tumor into three types including well differentiated neuroendocrine tumor, well differentiated neuroendocrine cancer and poorly differentiated neuroendocrine carcinoma[2]. In addition, the tumor is defined as functioning or non-functioning tumor according to hormonal production. Generally the functioning tumor as well as well differentiated tumor has better prognosis[3]. Surgery is still the main treatment for these patients.

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CASE 3

A 46 years old female present with chronic epigastrium pain for 2 months
Esophagogastroduodenoscopy was shown as pictures.

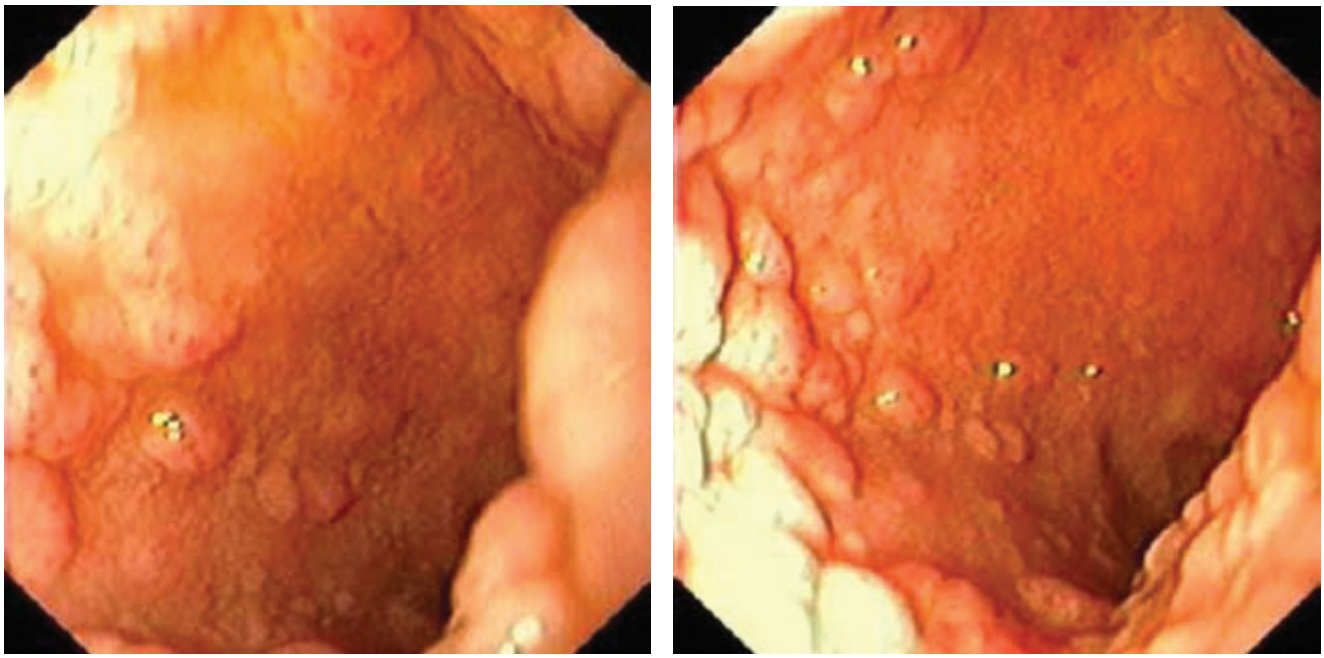

Figure 6-7.

EGD findings showed thickening of mucosal folds with diffuse and focal nodularity of 2nd part of duodenum

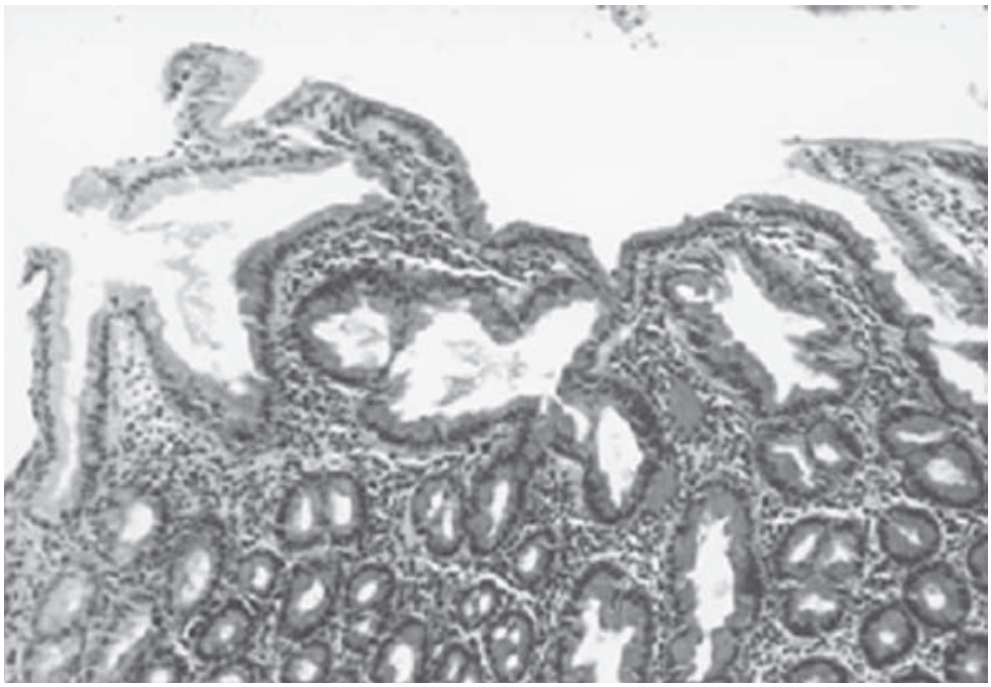

Figure 8. Pathological report showed gastric metaplasia of the duodenum.

Discussion

Gastric metaplasia of the duodenum is the metaplastic replacement of groups of duodenal epithelial cells by those with a gastric mucosal phenotype. It is generally believed to occur as a non-specific response to acid/peptic damage and resembles gastric foveolar epithelium in many respects, including in *H. pylori* colonization[1].

H. pylori colonization of regions with gastric metaplasia is thought to play a critically role in the pathogenesis of duodenal ulcer disease and eradication of *H. pylori* results in long term healing of ulcer. Duodenal ulcer recurs if *H. pylori* infection persists or recurs in the gastric mucosa[2].

Although, it is strongly associated with high acid output and *H. pylori* infection, the clinical significance of gastric metaplasia of the duodenum is obscure[3] and they usually disappear after eradication of the H.pylori infection[4].

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CASE 4

A 30 year-old man with known history of familial adenomatous polyposis came to the hospital for EGD. EGD finding was shown as pictures.

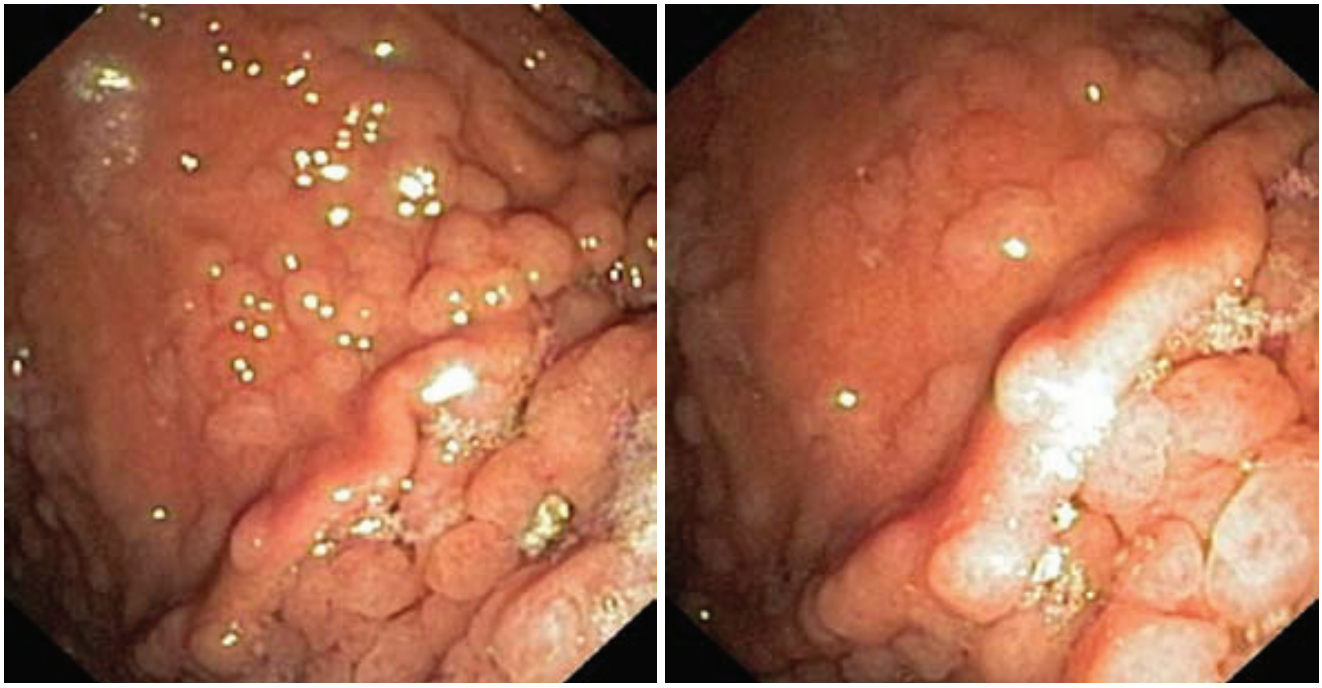

Figure 9-10.

EGD findings revealed multiple small gastric polyps located in fundus. His diagnosis is multiple fundic gland polyps.

Discussion

Fundic gland polyps (FGPs) are the most common gastric polyps in both familial adenomatous polyposis (FAP) and sporadic patients. FGPs are reported to occur in 12.5 to 84% of patients with FAP whereas sporadic FGPs are identified in 0.8 to 1.9% of non-FAP patients undergoing upper gastrointestinal endoscopy. FAP associated FGPs tend to be more numerous, occur at a younger age, and have a more equal gender distribution. The pathogenesis of FGPs remains uncertain. FGPs have generally been regarded as non-neoplastic lesions. Neoplastic progression of FGPs in FAP patients has occasionally been reported, including the development of a large dysplastic gastric polyp or even infiltrating gastric cancer[1-4]. Despite the lack of more exact estimates of the risk of tumor progression in patients with FAP and fundic gland polyposis, molecular evidence indicates that FAP associated FGPs are neoplastic polyps. Similar to the presence of other neoplastic polyps of the upper gastrointestinal tract in patients with FAP, the presence of fundic gland polyposis may warrant close endoscopic surveillance[5].

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