A Case Report of Gastric Diverticulum-an Uncommon Cause of Dyspepsia

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Abstract- Gastric diverticulum is a rare anatomic abnormality which resulted from abnormal outpouching of the stomach wall. It is known to cause symptoms from asymptomatic to life threatening conditions. The management mainly depends on the severity of the disease and the size of the diverticulum and there is no specific treatment for an asymptomatic patient. We reported a case of 58-year-old gentleman who presented with dyspepsia secondary to gastric diverticulum. The diagnosis was made based on medical history and an outpatient Oesophagogastroduodenoscopy (OGDS). Patient was treated non surgically with proton pump inhibitors and prokinetics.

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Introduction

Gastric diverticulum is the least common gastrointestinal diverticular with overall incidence range from 0.01 to 2.6 percent (1). They are usually discovered incidentally during diagnostic checkups and have variables symptoms from mild to severe conditions. Gastric diverticular can be classified into two types, congenital gastric fistula and acquired gastric fistula. Among these two, congenital diverticular is more common (2). Congenital diverticular contain all the layers of gastric wall whereas acquired do not. The diagnosis of gastric fistula remains challenging and requires a high clinical index of suspicious. Although there are reported successful cases of conservative management, a close follow up to patient needed and surgical treatment should be offered when gastric fistula is large, and patient has not responded to medical treatment (3).

Case Report

A 58-year-old gentleman with no known medical illness presented to the surgical outpatient clinic with 1 week history of abdominal pain, pricking in nature at the epigastric region. It was associated with retrosternal burning sensation and acidic brash which exacerbated especially after meals. Patient otherwise denied any episode of vomiting, no fever, no shortness of breath, no significant loss of weight, no biliary obstructive symptoms and no change in bowel habit .

Upon assessment, patient was alert, afebrile, pink, not jaundice and not septic looking. The vital signs were stable. Abdomen examination findings were soft and non-tender, no mass palpable and hernia orifice intact. Digital rectal examination noted no intraluminal mass and brownish stool.

Blood investigation reveals normal blood count, normal liver function test and no hyperamylasemia .

He was treated as dyspepsia for investigation and was started on proton pump inhibitors (PPI) oral esomeprazole 40 mg OD. Upon reassessment after the initiation of the PPI, symptoms just partially improved. Thus, he was scheduled for Oesophagogastroduodenoscopy (OGDS) which revealed a diverticulum measuring 2.0 cm x 2.5 cm at fundus and hiatus hernia grade 2 (Figure 1). Otherwise, oesophagus, body of stomach and duodenum were normal.

The patient was treated with PPI, oral esomeprazole 40 mg OD and prokinetic, oral ganaton 50 mg TDS. Upon follow up in the clinic, the symptoms were improved, and

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the patient was treated non operatively. No further OGDS reassessment was scheduled for him.

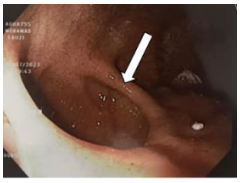

Figure 1. Endoscopic view of a gastric diverticulum located in the fundus of the stomach. (Arrow)

Discussion

Gastric diverticulum has an overall incidence from 0.01 to 2.6 percent. It is the least common type of gastrointestinal diverticulum (1). Gastric diverticulum resulted from abnormal outpouching of the stomach wall which similar to those of small bowel diverticula and colonic diverticula (3). It is first reported by Moebius in 1661 (4). Gastric diverticulum typically formed in the fundus and mainly along the posterior wall of the stomach as was demonstrated in this patient The occurrence has been observed equally distributed among males and females and those between 50 and 70 years of age (3).

Clinical diagnosis for gastric diverticulum may be challenging as most patients are asymptomatic and only presented with vague gastrointestinal symptoms. A thorough history taking including abdominal symptoms such as epigastric pain and discomfort which is the most common, nausea and vomiting, dyspepsia, early satiety, postprandial fullness, belching, halitosis, anorexia and dysphagia may present (3). Sometimes patient present with more severe and life-threatening symptoms such as upper gastrointestinal bleeding, ulceration and perforation which prompt for urgent workout and surgical intervention. Since the clinical manifestation of gastric diverticulum mainly inconclusive and can mimic those other gastrointestinal illness, they are usually discovered incidentally during diagnostic testing. Gastric diverticulum can be identified through radiological examination which include upper gastrointestinal contract radiographic studies and Oesophagogastroduodenoscopy (OGDS) with prevalence of 0.04% to 0.11% respectively (5). Generally, OGDS is a recommended modality to confirm the diagnosis since it assists in confirming the location and size of the diverticular. It also more convenient to get biopsy if needed (5). In a hemodynamically unstable and peritonitis patient, a simple plain erect chest x-ray may help in identify the coexisting illness such as perforated gastric ulcer (5). As in our patient, he had remained hemodynamically stable and no typical sign of perforated gastric ulcer. Hence, an outpatient appointment for OGDS was scheduled. The indication of the OGDS is mainly to establish the diagnosis and to facilitate further treatment.

The treatment approach of gastric diverticulum mainly depends on the disease's severity and the size of the diverticulum. There is no specific treatment for an asymptomatic patient. Surgical resection remains the main treatment for large gastric diverticulum (greater than 4cm in diameter), patients who continue to experience symptoms despite on PPI therapy and those who present with severe complication such as upper gastrointestinal bleeding, perforation of malignant transformation (4).

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