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A rare case report of Greater curvature Gastric diverticulum

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Abstract: *Gastric diverticulum is a rare surgical condition. They are usually asymptomatic and are often found accidentally during radiologic or endoscopic examination, or during autopsy. Most common location is the lesser curvature. Some of the diverticulum presents with upper abdominal symptoms like dyspepsia, epigastric pain, vomiting, loss of appetite and weight loss. Complications such as bleeding, ulceration and malignancy can occur. In this study we are presenting single case of gastric diverticulum, interestingly found in a rare anatomical position, in greater curvature of the stomach. The patient was symptomatic and investigated with barium study and gastroscopy. Medical treatment was started and responded well. Patient is on regular follow up.*
Keywords: *Asymptomatic, Gastric diverticulum, Gastroscopy, Greater curvature, Laparoscopic surgery.*

I. Introduction

A Gastric diverticulum is an abnormal outpunching of stomach wall[1].Generally it is a rare and uncommon condition with a prevalence of 0.02% in autopsy[2], 0.04% in radiographic studies and 0.01%-0.11% in upper gastrointestinal endoscopies[3, 4]. It occurs equally in men and women[5], typically in the fifth and sixth decades. Most of the gastric diverticulum are asymptomatic, occasionally abdominal symptoms occur, including vague pain, epigastric fullness, bloating sensation, vomiting, bacterial overgrowth[8,9] and anemia, weight loss. Complications like diverticulitis, bleeding, perforation, malignancy can occur[5-10]. Gastric diverticulum are usually 1-3 cm in diameter and can be divided into true diverticulum comprising all gastrointestinal layers and pseudodiverticulum which are often found in the lesser curvature and 2cms below esophagogastric junction, even in antrum[11,12]. We present a case of uncommon large symptomatic gastric diverticulum on the greater curvature which is even rarer with discussion of the management of that case and managements with brief literature review.

II. Case Report

A 62 years old male patient came to our surgical department with complaints of epigastric pain, belching with abdominal bloating sensation, vomiting after few hours of solid food intake the content was undigested food particles. Leading to loss appetite and loss of weight which not quantifiable. Patient was admitted in our surgical ward for further evaluation. Routine blood investigations were done all were within normal limits. Initially we suspected the patient to have either malignant pathology or acid peptic disease. So we planned for further investigation with barium study which surprisingly showed a huge gastric diverticulum on the Greater curvature “fig1” and no other abnormalities “fig2”. Further a gastroscopy was performed which confirmed the above diagnosis which was a gastric diverticulum on the Greater curvature measuring roughly around 5-6 cms with a wide neck and no other lesions were noticed during the procedure “fig3-4”. To confirm any other intra abdominal pathology we did a basic ultrasound abdomen which showed normal study. Later patient was started on medical management with antacids and proton pump inhibitors for two weeks and called back for follow up. Patient was symptomatically better and continued same medical management and regular follow up. The patient also has been advised about the complications of the disease. Now the patient is on regular follow up and asymptomatic.

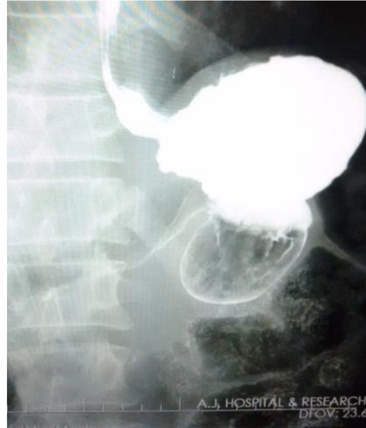

Figure 1 showing barium study with diverticulum

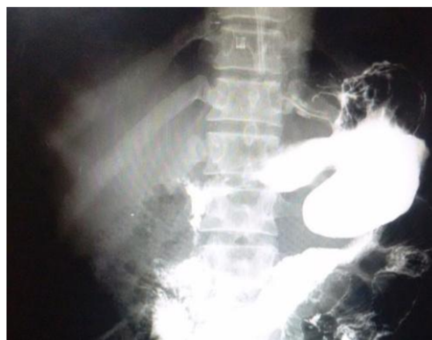

Figure 2 showing greater curvature diverticulum

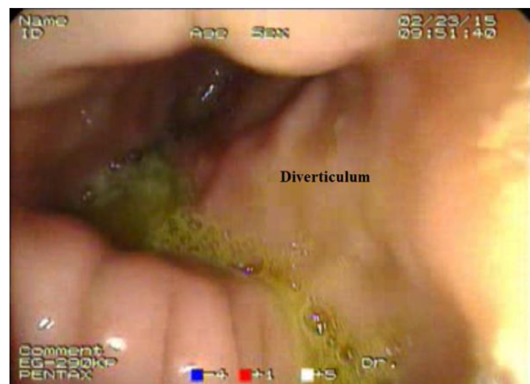

Figure 3 gastroscopy picture of diverticulum

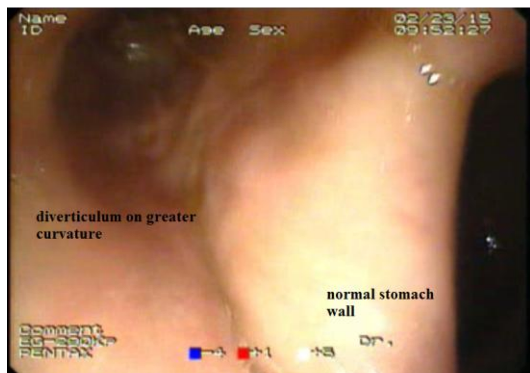

Figure 4 showing both diverticulum and normal stomach wall

III. Discussion

Moebius in 1661[1] and later Roax in 1774 first described diverticula[1, 13]. Gastric diverticulum is found in age between 20 to 60 years [1, 14, 15]. No gender difference and equal in both males and females[5]. Incidence of gastric diverticulum is 0.04%-0.12% overall[2-4]. Gastric diverticulum can be two types, true diverticulum with all the four layers of the stomach[11, 12] and another one is false diverticulum with only mucosa prolapse. False diverticulum is usually common and false diverticulum is due to increased luminal pressure causes like cough , obesity and pregnancy[1,15-16]. Most of the gastric diverticulum are asymptomatic. Although they present with symptoms such as dyspepsia, vomiting and abdominal pain[5-7]. Some patients with chronic weight loss and bacterial overgrowth are also seen[6-8]. Complications of gastric diverticulum include diverticulitis, bleeding, perforation and malignancy[9, 10]. Most common site is the lesser curvature and other areas are ~2cms form oesophagogastric junction and antrum[11, 12]. Very rarely gastric diverticulum is found in the Greater curvature of the stomach[17, 18]. Usually diverticulum are single and measures around 1-3 cms. They are best diagnosed by Barium Radiography and Gastroscopy. Added information is obtained with CT scan also. Drawbacks of these investigations are sometimes they miss small diverticulum routinely[6, 11, 19, 20]. Treatment of Asymptomatic diverticulum is just wait and watch. Treatment is required only for symptomatic Patients. Medical management is the first modality of treatment which includes antacids and proton pump inhibitors[3, 20]. If patients are not responding to medical treatment surgical method is treatment of choice. Surgical methods include open resection, endoscopic resection and laparoscopic resection[21, 22]. In conclusion, laparoscopic resection is a safe and feasible surgical approach with excellent outcomes and is strongly indicated for symptomatic gastric diverticulum.

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