

A gallstone impacting to stomach wall imitating a gastric tumour

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ABSTRACT

Authors describe a case of 78 years old female who presented with the right upper abdominal pain. Ultrasonography showed a gallstone. The patient underwent laparoscopic cholecystectomy. The laparoscopic procedure was converted to laparotomy because the adhesions between gallbladder and stomach could not be dissected on the correct plane. A gallstone impacted to the stomach antrum wall was observed during dissection. When dense adhesions are noted between the gallbladder and stomach during a routine laparoscopic cholecystectomy, one should consider an impacted gallstone on the gastric wall via a cholecystogastric connection.

KEY WORDS: Gallstone, Impaction, Stomach.

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INTRODUCTION

Gallstones are asymptomatic in majority of patients with cholelithiasis. When they become symptomatic, complications such as acute cholecystitis, choledocholithiasis, gallstone ileus, and gallstone pancreatitis may accompany the disease. Biliary-gastic fistula is a rare complication of cholelithiasis.¹ Chronic inflammation, gallbladder ischemia, and adhesion to adjacent stomach may result in the formation of a biliary-gastric fistula. But, a case regarding a gallstone localized to the antrum wall of stomach without biliary-gastric fistula has not been reported. We report a patient with gallstone localized to the antrum wall, imitating a gastric tumor.

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CASE REPORT

A 78-year-old woman presented to our hospital with complaints of right upper quadrant pain and nausea of two years' duration. There was no past surgical history. On physical examination there was minimal tenderness with palpation on the right upper quadrant of abdomen. The routine laboratory examination was normal. Abdominal ultrasonography revealed a thickened gallbladder wall includes a single gallstone about 2.2cm. Intra and extrahepatic bile ducts were normal and a pneumobilia was not seen. The patient was scheduled for elective laparoscopic cholecystectomy.

Laparoscopically, dense adhesions were observed between the gallbladder and antrum of the stomach. The laparoscopic procedure was converted to laparotomy because the adhesions could not be dissected on the correct plane. A laparotomy was performed by the right subcostal incision. After dissection of the adhesions around the gallbladder and antrum of the stomach, we encountered a mass of 4x5 cm in the antrum. The mass had hard consistency on palpation. We decided a wedge resection. We applied a gastrotomy about 4cm longitudinally on the anterior wall of antrum. The gastric mucosal integrity was normal and there was no abnormal appearance. During the wedge resection of the mass, an

intramurally located gallstone with dark brown colour was exposed (Fig-1). The gallstone was removed. After cholecystectomy and gastrography a suction drain was left to the foramen Winslow in the abdomen. The nasogastric tube was removed on the postoperative second day. The patient's postoperative course was uneventful and the patient was discharged from the hospital on the seventh day.

The histopathologic examination confirmed chronic and no evidence of malignancy in the antrum wall. The patient is free of symptoms on a two years follow-up after the surgery.

DISCUSSION

Biliary-gastric fistula is a relatively rare disease and is often encountered incidentally during surgery. About 1.5% of spontaneous internal biliary fistulas are cholecystogastric fistula.¹ We reviewed the literature about cholecystogastric fistula and impacted gallstone in the gastric wall without cholecystogastric fistula.¹⁻¹² But, we could not find a case regarding a gallstone localized to the antrum wall of stomach without biliary-gastric fistula, imitating a gastric tumor.

Various clinical symptoms may occur after fistulization of gallstone to stomach or duodenum.¹³ Gastric outlet obstruction caused by duodenal impaction of a large gallstone migrated through a cholecystoduodenal fistula has been referred as Bouveret's syndrome.¹⁴ Gastric gallstone-induced bezoar formation is located in the antral hollow, where intermittent obstruction of the gastric outlet leads to recurrent nausea, vomiting.¹¹ In our case, the gallstone was seated at the antrum of the stomach intramural without any gastric outlet obstruction symptom like vomiting.

A preoperative diagnosis of this condition is not easy because of its' rare incidence and the absence of specific symptoms. Air shown in the biliary tract (pneumobilia) on plain film is pathognomonic in patients without a previous history of biliary tract surgery.³ But a pneumobilia was not established in our case because of no biliary-gastric fistula. Although ERCP was the most accurate diagnostic method, the preoperatively diagnostic accuracy was 50%.^{1,3,4} Cholecystogastric fistula associated with intragastric gallstones and bezoar formation can be diagnosed by esophagogastroduodenoscopy.^{7,11} Cross-sectional imaging modalities such as computed tomography and ultrasound may be useful in the reported case. But, we think that endoultrasonography can diagnose most correctly the condition.

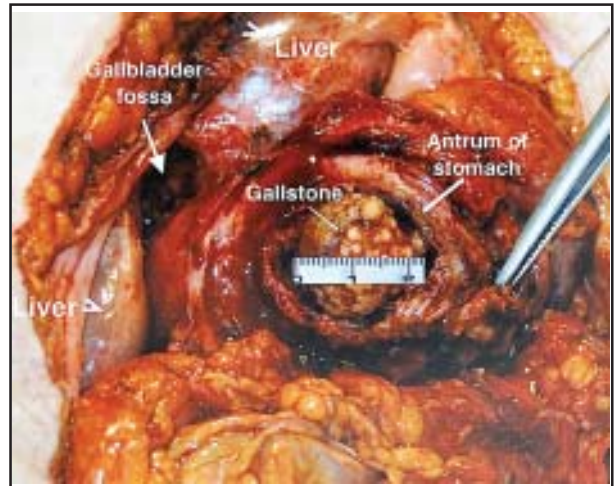


Fig-1: Intramurally located gallstone into stomach wall.

Although many papers have suggested a treatment with laparoscopic approach in the cases of bilio-enteric fistula^{1,2,5,10,12}, a laparotomy was mandatory in the present case because of the malignancy risk. In our case a gallstone localized to the antrum intramurally created a gastric tumor image in the operation, altering the operation to conversion cholecystectomy and gastrotomy.

In conclusion, during a routine laparoscopic cholecystectomy when dense adhesions are noted between the gallbladder and antrum of the stomach, one should consider an impacted gallstone on the gastric wall via a cholecystogastric connection. A laparotomy may be mandatory in such cases because of malignancy risk.

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