



Clinical Case

Gallstone Ileus Complicating an Asymptomatic Gallstone Disease : A Case Report

Iléus biliaire compliquant une lithiase biliaire asymptomatique : à propos d'un cas

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ABSTRACT

Gallstone ileus is caused by an impaction of one or more gallstones within the gastrointestinal tract leading to mechanical intestinal obstruction. It is a rare complication of cholelithiasis occurring mostly in the elderly female patient. Clinical presentation is non specific leading to a high mortality rate. Computed tomography has considerably improved the diagnostic yield and surgery remains the mainstay of management. We are reporting the case of a 78 years old female patient referred for persistent abdominal pains and vomiting associated to gallstone ileus, successfully managed by an enterolithotomy.

RÉSUMÉ

L'iléus biliaire est une occlusion intestinale d'origine mécanique causée par l'enclavement d'un ou plusieurs lithiases biliaires dans le tube digestif. Il s'agit d'une complication rare de lithiase biliaire, survenant surtout chez la femme âgée. La présentation clinique est non spécifique, responsable d'un retard diagnostic. La tomodensitométrie a considérablement amélioré le rendement diagnostique, et le traitement est essentiellement chirurgical. Nous rapportons le cas d'une femme de 78 ans référée pour douleur abdominale persistante ainsi que des vomissements liés à un iléus biliaire, d'évolution favorable après une entérolithotomie.

INTRODUCTION

Gallstone ileus is a rare complication of gallstone disease, occurring in 0.3 to 0.5% of all patients with gallstones [1]. It results from the migration of a gallstone into the small intestine, generally the duodenum, through a fistula. They are known to account for 1-4% of bowel obstructions and close to 25% of cases of non-strangulated small bowel obstruction in patients aged above 65 years old [2-5]. Complications of gallstone disease are rare in asymptomatic patients [6]. Surgery remains the mainstay of treatment though the best option remains controversial [7]. Cases of gallstone ileus in Subsaharan Africa are scarce. We are reporting a case of gallstone ileus in a asymptomatic patient in Ebolowa, South of Cameroon, Central Africa.

CASE PRESENTATION

It is the case of a 78 years old female patient, who was referred from a primary health care center for persistent excruciating generalized abdominal pain of 10 days duration, of sudden onset, initially intermittent in nature but progressively became permanent, associated to recurrent vomiting which progressively became fecaloid. Considering her past history, besides her known chronic obesity, there is no other reported medical or surgical condition. She has never experienced upper abdominal pain. She has 10 children from 10 pregnancies. Upon physical examination she had the following parameters: temperature of 37.9°C, blood pressure 129/84mmHg, pulse 119/min, weight 134kg, height 167cm, giving a body mass index of 48Kg^m-2. There was no palor nor jaundice, with dry lips and mucous membranes. The abdomen was diffusely tender, with no

guarding nor rigidity. There was non inguinal nor umbilical hernia. Digital rectal examination was painless with the presence of soft stools in the rectum.

Paraclinical investigations revealed hyperleucocytosis with 12600 granulocytes/mm³, creatininemia of 19mg/dl with normal blood urea, and mild hyponatremia. Liver enzymes were within normal range as well as bilirubinemia and prothrombine time. An abdominal CT scan (images 1,2 and 3) was done which revealed dilated small bowel loops upstream a large circular calcified gallstone and the presence of air in the gallbladder (consistent with the Rigler triad), alongside a residual gallbladder stone.

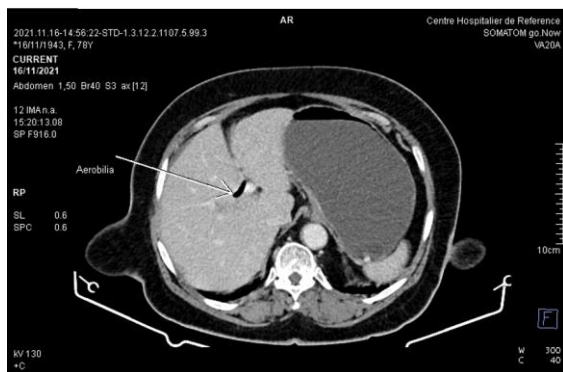


Image 1 : Presence of air in the biliary tree



Image 2 : Presence of a residual stone in the gallbladder alongside air.

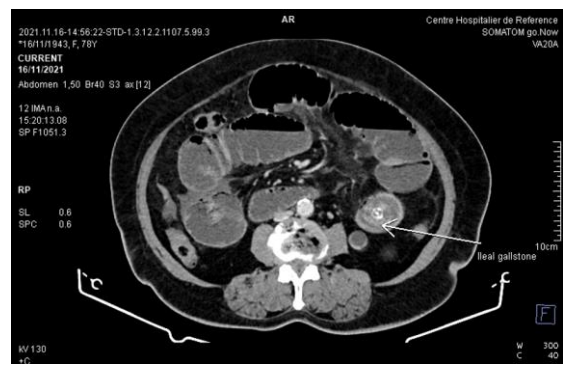


Image 3 : An impacted gallstone in the distal ileum, preceded by dilated bowels



Image 4 : Extracted gallstone

Resuscitative measures were taken. Dehydration was managed using crystalloid fluids, and decompression of the gastrointestinal tract was done using a nasogastric tube. An indwelling urinary catheter was inserted to measure urine output. Analgesic and prophylactic antibiotics with Ceftriaxone (third-generation cephalosporin) were administered. She was rushed to the theater, about 48 hours after admission, where a laparotomy was done and the gallstone removed through a simple enterolithotomy, leading to the extraction of a yellowish gallstone, which had a diameter of about 4 cm, 15 cm away from the ileo-caecal valve (image 4). Given the mild dehydration and the altered kidney function, cholecystectomy and fistula closure was not carried out during this intervention. Her recovery was uneventful and she was discharged on the 8th day after surgery.

DISCUSSION

Gallstone ileus is a misnomer as it is a mechanical intestinal obstruction caused by impaction of the gallstones within the lumen of the bowel. In most case reports and series, it typically affects the elderly, with a female predominance [6-9]. We are reporting the case of a 78 years old female patient. However, some cases of gallstone ileus has been reported among young adults, still with a slight female predominance [10,11].

Gallstone ileus, from a pathological point of view arises either as a result of repeated cholecystitis or pressure effect of the gallstone on the bladder wall leading to erosion and fistula formation with adjacent gastrointestinal organs [12]. Most patients therefore have a history of recurrent right upper quadrant pain. Our patient had no history of upper abdominal pain.

Mortality association to gallstone ileus remains high, ranging from 12% to 27%, partially because of non-specific symptoms, non specific biochemical investigations, high misdiagnosis rate, older age of patients, late hospital admission, and delayed discovery [1, 13]. Our patient was referred from a primary health care center, being managed for symptoms which had been present for the past 10 days. However, none of them was suggestive of gallstone ileus. There was no remarkable abdominal distension as she was morbidly obese.

Abdominal computed tomography (CT) has been shown to have a 99% accuracy in diagnosing gallstone ileus [14]. In our patient the various components of the Rigler's triad were found, comprising of dilated small intestinal loops, a

calcified rounded structure close to the ileo-caecal valve and the presence of air in the gallbladder. The distal ileum has been reported to be the most frequent site of gallstone impaction [15].

Surgery remains the mainstay in the management of gallstone ileus. The various options include enterolithotomy alone, a one-stage procedure consisting of an enterolithotomy, cholecystectomy and fistula closure, and a two-stage procedure consisting of an enterolithotomy followed by an interval cholecystectomy and fistula repair [5,12]. Considering the fact that our patient had dehydration associated to acute kidney injury, an enterolithotomy alone was performed with the removal of a 4cm gallstone through a longitudinal incision of the ileum. Her post operative follow-up was uneventful and she was discharged of day 8 following surgery.

CONCLUSION

We are reporting a case of gallstone ileus in a 78years old morbidly obese patient with no past history of upper abdominal pain, suggestive of an asymptomatic gallstone disease. The diagnosis gallstone ileus should be considered as a cause of intestinal obstruction especially in elderly female patients.

CONFLICT OF INTEREST

All authors declare no conflict of interest.

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