

## Biliary Ileus in a Context of Metastatic Tumor: A Case Report

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### Abstract

Biliary ileus is a rare complication of intestinal obstruction secondary to a bilioenteric fistula with passage of a large gall stone in the small intestine responsible for the obstruction. This complication is even more suspected in aged patients. The diagnosis is made by a Computed Tomography (CT) scanner which constitutes the imaging of choice for this pathology. The treatment is surgical consisting of an enterolithotomy with or without cholecystectomy and repair of the fistula. We report a case of biliary ileus in a 61-year-old patient admitted with a small bowel obstruction.

**Keywords:** Biliary Ileus; Bowel Obstruction; Surgery

### Introduction

Biliary ileus is a complication of gallstones. It is characterized by bowel obstruction secondary to the migration of a gallstone into the intestine through a bilioenteric fistula in the context of chronic cholecystitis. Biliary ileus is a rare condition that mainly affects older women. Its diagnosis is based on computed tomography (CT) scan [1]. Like any mechanical occlusion, its treatment is essentially surgical. We report the case of a 61-year-old female patient admitted with a small bowel obstruction with fortuitous discovery on surgical exploration of a metastatic uterine mass.

### Case Presentation

This is a 61-year-old female patient, with no notable medical history, who was admitted to the emergency room with a clinical manifestation of bowel obstruction which consisted of a 2 day history of inability to pass gas and stool associated with vomiting. Physical examination found a conscious, hemodynamic and respiratory stable, afebrile patient with a distended abdomen which was more tender in the right hypochondrium with a tympanic sound on percussion. Digital rectal examination found an empty rectal vault. The patients blood revealed hemoglobin at 15 g/dl, hyperleukocytosis at 16,000 elements/mm<sup>3</sup> and platelets at 325,000 elements/mm<sup>3</sup>. Serum electrolyte test but the patient had acute kidney injury with urea at 1.90 g/dl and creatinine at 15 mg/l. Plain abdominal x-ray showed air-fluid levels suggestive of small bowel obstruction. The patient was conditioned and rehydration was started. A nasogastric tube was passed. The fluid loss was corrected whilst we monitored the patients vital stats and diuresis. An abdomino-pelvic CT scan was performed which revealed a biliary ileus secondary to an impacted gall stone in the duodenum associated with an bilioenteric fistula (Figure 1). The CT scan also revealed a uterine mass.

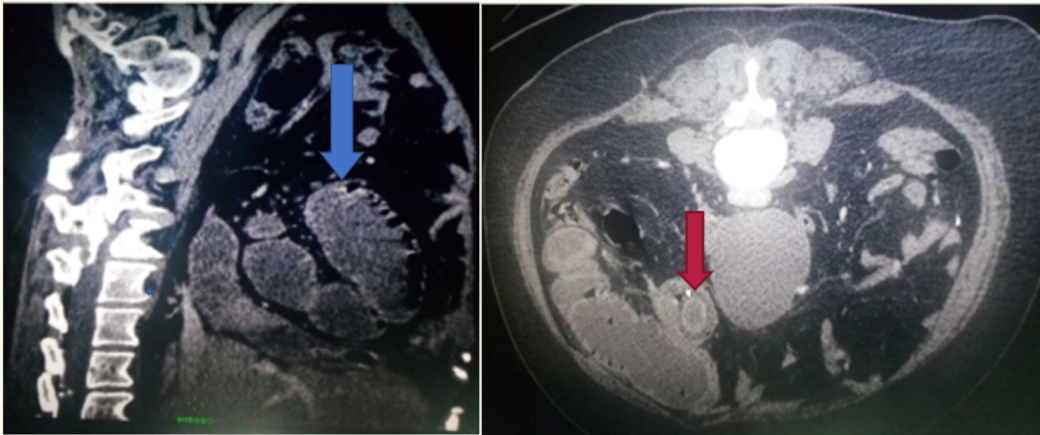


Figure 1: Showing a stone embedded in the duodenum (red arrow) and gastric distension (blue arrow).

Surgical exploration showed the presence of an enormous uterine mass with diffused peritoneal carcinomatosis. We found a gallstone in the duodenum. We performed an enterotomy with extraction of a gallstone (Figure 2) followed by enterorrhaphy without cholecystectomy, and biopsy of the carcinomatosis.

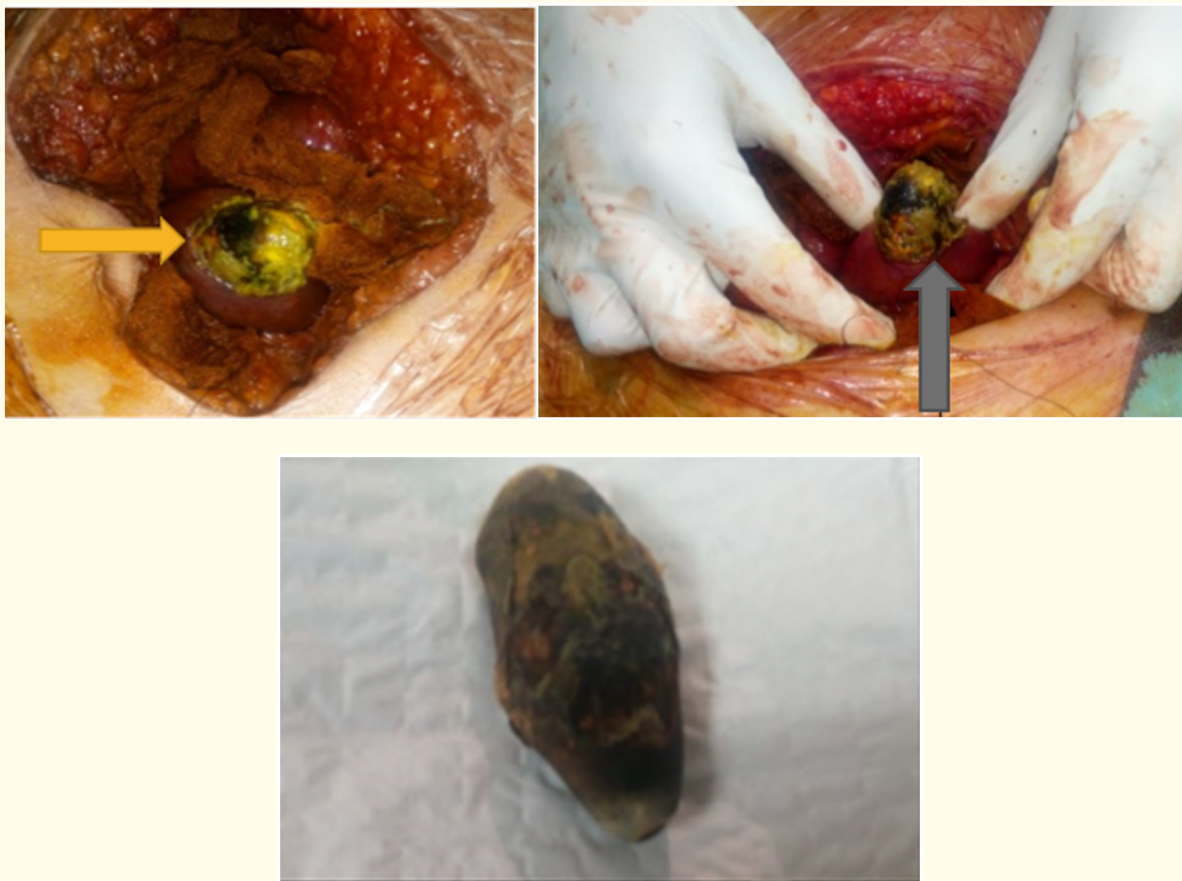


Figure 2: Showing enterotomy (yellow arrow) with stone extraction (gray arrow).

The immediate post-op was uneventful. Histological examination of the biopsy confirmed carcinomatosis. The decision of the multidisciplinary oncology team is palliative chemotherapy.

### Discussion

Biliary ileus accounts for approximately 1 to 3% of bowel obstructions [1] and 25% of mechanical obstructions [2]. Biliary ileus occurs much more often with bilioenteric fistula than with bilio-colic, biliogastric or cholecysto-biliary fistulas [3]. It is a condition that mainly affects the elderly, especially women over the age of 70 years [4]. Its diagnosis is often late preoperatively as it is only made in 30 to 55% of cases based on the radiological triad: pneumobilia, mechanical intestinal occlusion and ectopic localization of a calculus (often in the right iliac fossa) [5]. This triad attributed to Riegler is only observed in 20% of cases [6]. CT scan is the gold standard for demonstrating Riegler's triad [7].

In 80 to 85% of cases, the cause is a bilio-digestive fistula, which in 70% of cases is due to a cholecysto-duodenal fistula, this is secondary to recurring acute cholecystitis which causes peri-vesicular inflammatory changes. Biliary ileus can also be a complication of endoscopic sphincterotomy or the result of intraoperative lithiasis migration during cholecystectomy [8]. Management consists of removing the mechanical intestinal obstacle and later treating the underlying cause in the better condition if the symptoms persist [9]. The surgical treatment consists of an enterolithotomy with or without cholecystectomy and repair of the fistula in one or two surgical interventions.

The realization of cholecystectomy with the treatment of bilio-digestive fistula at the same time as the enterolithotomy is a subject that divides the authors.

In the literature, three attitudes have been reported [10]:

1. Enterolithotomy alone can be performed as was the case in our patient, because spontaneous closure of the fistula on an empty gallbladder has been reported and given the particular case of our patient who had poor prognosis.
2. Enterolithotomy first, then cholecystectomy associated with treatment of the fistula second after regression of inflammatory phase. It is recommended in patients with a general condition likely to withstand several interventions.
3. Enterolithotomy associated with cholecystectomy followed by fistula repair at the same time of operation. This method is indicated in patients in good general condition who can be able to withstand a long intervention.

### Conclusion

Biliary ileus is a rare complication of gallstones that should not be forgotten in the face of bowel obstruction syndrome in the elderly. The diagnosis is made by CT which highlights Riegler's characteristic triad. The treatment is surgical consisting of enterolithotomy with repair of the bilioenteric fistula associated with or without cholecystectomy.

### Conflicts of Interest

The authors have no conflict of interest.

### Authors contributions

All authors contributed to this article. They read and approved the final version of this manuscript.

**Bibliography**

1. T Dossouvi, *et al.* "Biliary ileus: a rare cause of acute bowel obstruction". *Revue Médicale de Bruxelles* 38 (2017): 99-102.
2. Zahid FE, *et al.* "Uncommon cause of small bowel obstruction - gallstone ileus: a case report". *Cases Journal* 14.2 (2009): 9321.
3. Delabrousse E., *et al.* "Gallstone ileus: CT findings". *European Radiology* 10.6 (2000): 938-940.
4. Grumbach K., *et al.* "Gallstone ileus diagnosed by computed tomography". *Journal of Computer Assisted Tomography* 10.1 (1986): 146-148.
5. Karim Ibnmaj doub Hassani, *et al.* "Biliary ileus with spontaneous evacuation of a large stone: about a biliary casileus with spontaneous evacuation of a large stone: About a case". *The Pan African Medical Journal* 4 (20010): 10.
6. Kunin N., *et al.* "Biliary ileus revealed by a rectal calculus". *Gastroentérologie Clinique et Biologique* 28 (2004): 1184.
7. Edderai M., *et al.* "Computed tomography diagnosis of biliary ileus". *La Presse Médicale* 38.1 (2009): 163-164.
8. Habib E., *et al.* "Digestive complications of a gallstone lost during laparoscopic cholecystectomy". *Gastroentérologie Clinique et Biologique* 26 (2002): 930-934.
9. Muthukumarasamy G., *et al.* "Gallstone ileus: surgical strategies and clinical outcome". *Journal of Digestive Diseases* 9.3 (2008):15661.
10. Hassani KI, *et al.* "Gallstone ileus with spontaneous evacuation of a large stone: report of a case". *The Pan African Medical Journal* 4 (2010): 10.

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