Case report

A febrile occlusion revealing a biliary ileus

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ABSTRACT

Biliary ileus is a consequence of the migration of a gallstone from the gallbladder to the digestive tract, most often via a biliodigestive fistula that causes a bowel obstruction.

The clinic is atypical and capricious, including bowel obstruction and signs of cholecystitis, causing a delay in diagnosis.

The therapeutic objective is to remove the intestinal obstacle by an enterotomy with stone extraction, with or without treatment of the biliary pathology (cholecystectomy and biliary fistula cure).

The surgery remains the treatment of choice; laparoscopy and endoscopy present a less invasive alternative and are beginning to prove their effectiveness.

The morbi-mortality remains high for biliary ileus, this is principally caused by the delay in diagnosis.

1. Introduction

Biliary ileus is an uncommon complication of cholelithiasis and is defined as a mechanical intestinal obstruction by enclavement of a large gallstone which has perforated the vesicular wall and created a biliary-digestive fistula.

It is responsible for 2% of all small bowel obstructions [1].

Physical signs are insidious, deceptive and responsible for the delay in diagnosis.

Through this case report and a review of the literature, we wish to highlight the circumstances of the occurrence of this pathology and the difficulties of clinical and paraclinical diagnosis and therapy.

This work has been reported in line with the SCARE criteria [2].

2. Case presentation

Patient aged 63-year-old woman who had an ultrasound-guided puncture of a liver abscess one year ago, known carrier of a lithiasis gallbladder not yet operated on.

She has had vomiting for 2 days prior to admission, aggravated on the day of admission becoming bilious with the onset of intense diffuse abdominal pain, with an occlusive syndrome.

On examination: she was febrile, hemodynamically stable; with an occlusive syndrome. The rectal examination revealed a faecal impaction, without tumour process.

Biologically: hyperleukocytosis was noted at 19400, with an inflammatory syndrome (CRP at 28) and the rest of the analyses are without anomaly.

An abdominal CT scan showed significant pneumobilia, an atrophic gallbladder with a cholecysto-duodenal fistula associated with a small bowel obstruction on an intraluminal obstacle (Fig. 1); the diagnosis of biliary ileus was retained. The patient was operated with mini laparotomy with stone extraction by enterotomy (Figs. 2, 3).

The post-operative period was marked by good clinical evolution.

No emergency or remote treatment was performed for cholecysto-duodenal fistula, and no complications arose at this level during the follow-up.

3. Discussion

The biliary ileus accounts for 2% of organic acute intestinal occlusions [1]. This incidence rises to 25% after the age of 70, with a clear predominance of women [3]. Physiopathologically, repeated episodes of cholecystitis lithiasis lead to peri vesicular inflammation with formation of cholecystodigestive fistula and migration of vesicular stones to the digestive tract [4].

In 10 to 20% of cases, they become enclosed, giving rise to a mechanical obstruction complete [5].
Fig. 1. A gallstone in the Jejunum and an upstream distension was seen on CT scan.

Fig. 2. Intraoperative view showing the gallstone enclaved in the small bowel.
Clinical signs are non-specific; they are the cause of a diagnostic delay [1], explaining high rates of mortality and morbidity [6]. The diagnosis is based on Rigler's triad, which combines pneumobilia, small bowel obstruction and ectopic calcified gallstone.

Recent studies have shown the value of CT scanners in diagnosis with a sensibility, specificity and positive predictive value of 93%, 100% and 99% respectively [7]. The CT scanner allows the visualization of the cholecysto-duodenal fistula, the precise location of the transitional zone and it must eliminate the presence of other stones that would be a source of postoperative recurrence [8].

The treatment must be early.

Two surgical approaches have been described: isolated enterotomy, enterotomy with cure of cholecystodigestive fistula and cholecystectomy in one or two stages [3].

The combination of biliary surgery or its realization in a second operation increases the morbidity and remains for the most authors useless in the absence of ulterior symptoms [9] since the fistula spontaneously dries up in more than 50% of cases. The recurrence rate is minimal (less than 5%) [3,9].

4. Conclusions

Biliary ileus is a rare pathology, responsible for bowel obstruction.

The diagnosis should be made in elderly patients with a known history of gallbladder stones.

Currently the abdominal CT scanner remains the best reference examination, allowing a quick and precise diagnosis.

The treatment is surgical, based on an enterotomy associated or not with the cure of cholecystodigestive fistula and cholecystectomy.

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Ethical approval

It’s a one case report needing no ethical approval.

Consent

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Author contribution

Dr. BOUDOU Mohamed: Have written the article, have consulted the patient, prescribed all of the tests and prepared the patient for surgery and participated in the surgery.

Dr. Khalil MAAMAR: data collection and he participated in the surgery.

Dr. Haitam SOUSSAN, Dr. Soufiane TAIBI: have helped writing the article, data collection.

Pr JABI Rachid: supervised the writing of manuscript.

Pr BOUZIANE Mohammed (oncology surgery professor): have supervised the writing of the paper, and has been the leader surgeon of the case. All the authors approved the final draft of the paper, for the submission.

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