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Relato de caso: Colecistite aguda complicada com fístula colocistocolonica

Case report: Acute cholecystitis complicared with colocystocolonic fistula

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ABSTRACT

Acute cholecystitis is an acute inflammatory disease of the gallbladder, commonly caused by lithiasis. It is more prevalent in females, and one of its risk factors is obesity. In the vast majority of cases, symptoms include intense pain in the right hypochondrium or epigastrium, which may radiate to the back, associated with nausea, vomiting, diarrhea, hyporexia, fever and jaundice. The diagnosis is made through images, such as abdominal ultrasonography, which is considered a very

efficient method for these cases, or computed tomography of the abdomen and in some situations through endoscopic examination (colonoscopy). The treatment is surgical.
The patient in the case report in question had a cholecystocolic fistula, which is a rare complication of biliary lithiasis, which has variable and nonspecific clinical manifestations, and its diagnosis is often made incidentally in the perioperative period of its underlying cause. The most indicated treatment is cholecystectomy with closure of the fistula by videolaparoscopy.

Keywords: Cholecystitis, Etiology, Symptoms, Fistula, Diagnosis, Treatment.

1 INTRODUCTION

Acute cholecystitis is an acute inflammatory disease of the gallbladder, commonly caused by lithiasis. It is more prevalent in females (4:1), and its risk factors are obesity, advanced age (greater than or equal to 50 years), multiparity and childbearing age. Gallstones affect 10 to 15% of the population in developed countries, and present as calculous cholecystitis in 20% of symptomatic patients, with clinical progression varying according to severity. More than 90% of cholecystitis cases are associated with cholelithiasis, and when it affects the elderly, there is a higher mortality rate. On the other hand, cholecystocolic fistula is a rare complication of biliary lithiasis, in which its clinical manifestations are variable and non-specific, and its diagnosis is often made incidentally in the perioperative period of its underlying cause. (1,9,11)

Symptoms include intense pain in the right hypochondrium or epigastrium observed in 74 to 96% of patients, which can radiate to the back, associated with nausea, vomiting, diarrhea, hyporexia, fever and jaundice, with these signs and symptoms being identified in 60 to 87% of cases. Cholecystocolic fistula is a complication of chronic cholecystitis that occurs in less than 15% of patients, with a prevalence of around 80% in elderly women over 60 years of age who present with exuberant symptoms, whether or not associated with intestinal obstruction. (2,4)

Diagnosis is made through imaging, such as abdominal ultrasound, which is considered a very efficient method for these cases, or abdominal computed tomography, and in some situations through endoscopic examination (colonoscopy). However, as the clinical manifestations are nonspecific, this contributes to a preoperative diagnosis being made in only 7.9% of patients, so that a detailed description of the real complication is made in a furtive manner during the intraoperative period to treat the underlying cause. (7,8)

Mirizzi syndrome is a rare complication in which a gallstone becomes lodged in the cystic duct or neck of the gallbladder, resulting in compression of the choledochal duct and its consequent obstruction, which causes jaundice. This syndrome is classified into 5 groups according to the degree of involvement of the bile duct: I) extrinsic compression of the choledochal or common

hepatic duct by a stone in the vesicular infundibulum or cystic duct; II) presence of a cholecystobiliary fistula with a diameter of less than 1/3 of the circumference of the common hepatic/coledochal duct; III) cholecystobiliary fistula with a diameter greater than 2/3 of the circumference of the common hepatic duct/choledochus; IV) cholecystobiliary fistula that affects the entire circumference of the common hepatic duct/choledochus; V) any type, if there is a cholecystoenteric fistula, where Va: without biliary ileus and Vb: with biliary ileus. (10)

For those patients classified as type I Mirizzi syndrome, partial or total cholecystectomy is recommended. For type II, cholecystectomy is performed with closure of the fistula or choledochoplasty with suturing of the fistulous orifice to the remaining wall of the gallbladder. If there is a cholecysto-choledochal fistula (types II, III and IV), laparotomy by the conventional route is imperative, since biliary drainage needs to be performed simultaneously (12, 13).

Treatment is surgical, with cholecystectomy with closure of the fistula by laparoscopy being the most suitable choice, as it has a shorter hospital stay and a better post-operative period than laparotomy. It consists of unblocking the intestine by removing the stone, with or without resection of the intestine. Due to necrosis, perforation and ischemia, it may be necessary to remove the intestinal segment. In addition, the presence of other calculi in the rest of the small intestine is checked, as this occurs in 3 to 16% of cases. Recurrence is 5 to 20% in patients treated only with removal of the obstructing stone (3,7,8).

2 CASE REPORT

A 57-year-old female patient was admitted to Santa Casa de Presidente Prudente with a history of cholelithiasis, and had been waiting for surgery for two years. However, two months ago, the pain in the right hypochondrium increased in intensity, accompanied by nausea and several episodes of vomiting, which made her visit the hospital more than three times. She reports that, two days ago, the pain became unbearable and she began to have a fever of 38 degrees. She also had diarrhea and three episodes of bilious vomiting. She didn't report any fecal aspiration or jaundice.

Personal history: hypertensive patient, taking losartan and hydrochlorothiazide. Diabetic, with irregular use of medication. No history of previous surgery. No habits or addictions.

On physical examination, the patient had pain in the right hypochondrium, with a positive Murphy's sign and positive DB.

The patient had an abdominal ultrasound showing acute cholecystitis (Figure 1).

Laboratory tests showed urea of 35 mg/dL, creatinine of 1.5 mg/dL, sodium of 139 mEq/L, TGO of 505 U/L and TGP of 497 U/L. The blood count showed leukocytosis of 27,690 /mm3, hemoglobin of 11.8 g/dL and platelets of 309,000 /µL.

Videolaparoscopic cholecystectomy was performed (Figure 2). During the procedure, a cholecystocolonic fistula was identified and it was decided to convert to open surgery. Open cholecystectomy was then performed with colonic raffia. The patient's condition progressed well, with a diet in the second postoperative period, discharge in the fourth postoperative period, and she returned to the outpatient clinic well and without complaints.

FIGURE 1- Ultrasound of the abdomen showing calculus in the infundibulum, but no inflammation or fistula.

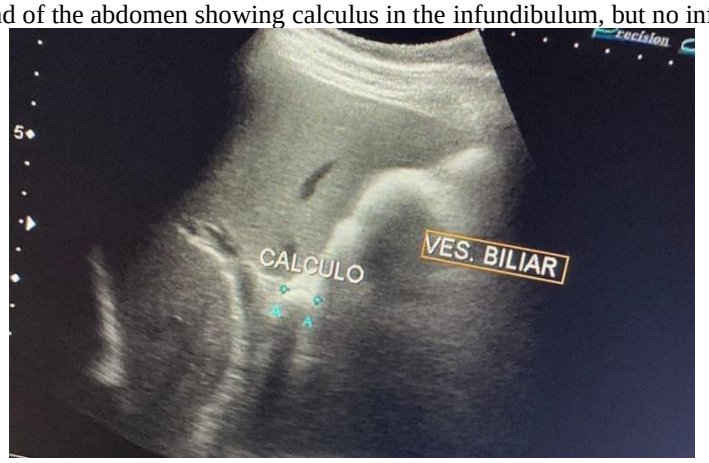
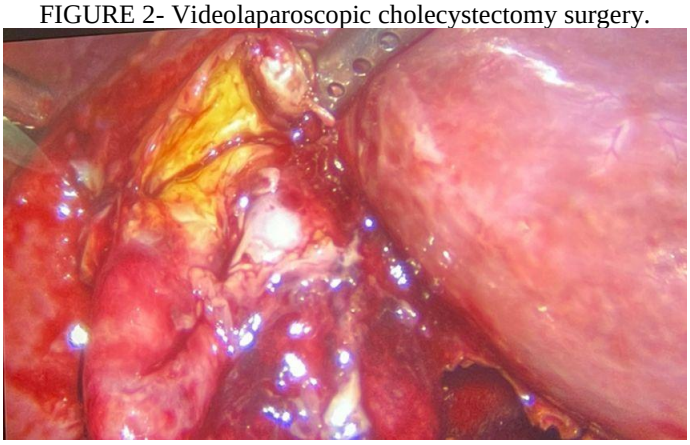


FIGURE 2- Videolaparoscopic cholecystectomy surgery.



3 DISCUSSION

First of all, the difference between cholelithiasis and cholecystitis should be highlighted. Cholelithiasis is a stone in the gallbladder that causes biliary colic. Cholecystitis is inflammation of the gallbladder, which most often results from obstruction of the cystic duct in 95% of cases and is usually associated with previous cases of cholelithiasis. This association occurred with our

patient, who had been awaiting surgery for cholelithiasis for two years. As a result of the delay in performing the cholecystectomy, this calculus persistently impacted and bile stasis occurred, causing damage to the gallbladder and thus generating inflammation**.**

Acute cholecystitis, then, can be described as an inflammatory pathological process, most of which is associated with lithiasis. Friction of the stone in the cystic duct or infundibulum can cause obstruction and distension of the gallbladder, characterizing biliary colic. This process triggers an increase in the production of prostaglandin and lysolecithin (a mucosal irritant), initiating the inflammatory process. In the case in question, the inflammation with fistula was identified during laparoscopic cholecystectomy, which was quickly converted to open surgery.

The risk factors associated with a higher incidence of gallbladder disease and gallstones are: female gender, obesity, hormonal exposure, diabetes, liver disease, age over 40 and weight loss. This case reports a patient at high risk of acute cholecystitis, as she is female, has diabetes (she takes medication, but irregularly) and is over 40 years old.

In order to confirm the diagnosis, the patient's symptoms and the laboratory and imaging tests they present must be analyzed. The clinical picture is mainly characterized by severe epigastric pain radiating to the back, nausea and vomiting, persistent pain for more than 12 hours, a positive response to the Murphy manoeuvre, tachycardia and a high temperature. Laboratory tests showed leukocytosis, increased direct bilirubin, elevated amylase and elevated alkaline phosphatase. In imaging tests, ultrasound identifies gallstones and is therefore the most appropriate test, although radiography, computed tomography and magnetic resonance imaging are important for excluding differential diagnoses.

The introduction of ultrasound brought about a revolution in the field of gastroenterology, especially in the study of the liver and bile ducts, due to its simple, precise and non-invasive form of analysis. Ultrasound has no contraindications or harmful effects, and patient preparation is simple and can be carried out at the bedside, even in the case of seriously ill patients. This technique has a sensitivity of over 90% in detecting gallbladder stones, and is capable of diagnosing even small stones with a diameter of up to 2 mm, regardless of their number.

However, it is important to note that the quality of the examination and, consequently, its sensitivity can be impaired in obese, distended patients or those with intraperitoneal adhesions. In our case, ultrasound of the biliary region identified a calculus in the infundibulum, but no inflammation with a fistula. This calculus was enough to diagnose acute cholecystitis, since it was responsible for the biliary colic, referred to as pain in the right hypochondrium.

Our case belonged to the group with the highest prevalence (female, diabetic, over 50), with a previous history of cholelithiasis and presented a clinical picture and test results that confirmed the diagnosis of cholecystitis. Therefore, the procedure chosen was videolaparoscopic cholecystectomy.

Videolaparoscopic cholecystectomy was first performed in France in 1987, two years after the first laparoscopic cholecystectomy in Germany, and in Brazil in 1990. Videolaparoscopic cholecystectomy has been shown to be superior to conventional (open) surgery in several respects. This minimally invasive approach offers several advantages, including less surgical aggression, shorter hospital stays and faster return to social and work activities.

When performing videolaparoscopic cholecystectomy, the surgeon makes small incisions in the abdominal region and inserts a laparoscope and special surgical instruments to remove the gallbladder.

Cholecystectomy is indicated for patients with cholelithiasis associated with acute cholecystitis. In general, a patient with acute cholecystitis is hospitalized, the patient is hydrated, electrolytes are replaced intravenously and fasting is established.

In addition to faster recovery, videolaparoscopic cholecystectomy also offers a lower risk of infection, less blood loss during the procedure and a lower incidence of postoperative complications, such as adhesions and incisional hernias.

However, there is a high proportion of cases in which it is not possible. About 10 years ago, situations such as pregnancy, previous abdominal surgery, intolerance to increased intra-abdominal pressure, intestinal obstruction, coagulopathy, obesity, cirrhosis, intolerance to general anesthesia, choledocholithiasis and acute cholecystitis were considered absolute contraindications for laparoscopic cholecystectomy.

Furthermore, in some patients, when there are technical difficulties (anatomical visualization, extensive inflammation, adhesions, bile duct injuries, retained bile duct stones and uncontrolled bleeding, complications inherent to laparoscopic dissection), it becomes necessary to convert from laparoscopic to open surgery. Studies have shown that this conversion is carried out in 1.5 to 19% of patients. In the case reported, a cholecystocolonic fistula was identified. Cholecystocolonic fistula is a rare complication resulting from the local chronic inflammatory process, and its diagnosis is often made during the intraoperative period, so conversion to open cholecystectomy is carried out.

If surgery is not a viable option for the patient, percutaneous cholecystostomy can be an effective diagnostic and therapeutic alternative, with an improvement rate of around 90% of cases.

Especially in elderly and unstable patients, in whom surgery poses significant risks, percutaneous cholecystostomy can be performed under local anesthesia. Combined with the use of antibiotics, this approach can improve the acute condition and subsequently cholecystectomy (surgical removal of the gallbladder) can be performed after a period of 3 to 4 months. Our patient did not fit the criteria for percutaneous cholecystostomy.

As a result, the patient's condition progressed well, even though she had undergone open surgery and was in the risk group. She returned to the outpatient clinic with no apparent complaints and is currently living a normal life without abdominal pain.

4 CONCLUSION

We conclude that acute cholecystitis complicated with cholecystocolonic fistula requires early diagnosis and appropriate surgical treatment, the access route depends on the surgeon's skills, in the minimally invasive option, conversion to open surgery may be necessary in some cases and post-operative follow-up is essential to ensure an adequate recovery without complications.

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