



## BILIARY PERITONITIS REVEALING ACALCULOUS GANGRENOUS CHOLECYSTITIS

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### ABSTRACT

Gangrenous acalculous cholecystitis (GAC) is an acute nonspecific inflammation of the gall bladder, occurring in the absence of any gallstone in the bile ducts and whose symptoms start abruptly, rapidly evolving requiring urgent therapeutic decisions. GAC was described for the first time in 1947 by Glenn. We report the case of a 74-year-old patient who had poorly followed diabetes and presents an abdominal pain with a clinical examination that found a generalized abdominal defense. Abdominal ultrasonography showed a finely echogenic peritoneal effusion of moderate abundance, a tumbled appendix at 8.3 mm, and a semi-replicated gallbladder that appears free of gallstones.

Emergency laparotomy showed gangrenous patches on the gallbladder wall, cholecystectomy was done and histopathology revealed gangrenous cholecystitis. So, in case of acute cholecystitis and in the presence of risk factors, gangrenous cholecystitis should be one of the differential diagnoses in order to avoid serious complications.

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### INTRODUCTION

Gangrenous acalculous cholecystitis (GAC) is an acute nonspecific inflammation of the gall bladder, occurring in the absence of any gallstone in the bile ducts and whose symptoms start abruptly, rapidly evolving requiring urgent therapeutic decisions. GAC was described for the first time in 1947 by Glenn [1]. Its frequency remains difficult to estimate. Its physio-pathogeny is multi factorial.

#### Case presentation

A 74-year-old patient with a history of a plaque cure for right inguinal hernia 20 years ago and poorly followed diabetes, presents with abdominal pain that has been diffuse for a week, which worsened 2 days ago, accompanied by vomiting, evolving in a context of apyrexia and alteration of the general state.

The clinical examination found a febrile patient at 38.8 ° C, a tachypnea at 22 cycles / min and a stable hemodynamic state, at palpation; we found a generalized abdominal defense.

Biology showed leukocytosis at 19100 elements / mm<sup>3</sup>, hemoglobin at 15.3g / dl, lipasemia at 10.5 IU / l, glucose at 5.12g / l, and positive CRP at 289.18mg / l. Abdominal ultrasonography showed a finely echogenic peritoneal effusion of moderate abundance, a tumbled appendix at 8.3 mm, and a semi-replicated gallbladder that appears free of gallstones. With this table of peritonitis, a median laparotomy was performed urgently.

Intraoperative exploration showed bilious peritoneal effusion of medium abundance, catarrhal appendage, and gangrenous acalculous cholecystitis (figure 2)



Figure 1 gangrenous acalculous cholecystitis.

The gestures performed were: an appendicectomy (figure 2) and a cholecystectomy after section ligation of the cystic artery and cystic duct, washing and drainage by 2 drains under hepatic and pelvic was set up. The postoperative outcome was favorable with discharge at home after postoperative day 7 after correction of his blood glucose and was reviewed 2 weeks after the intervention with good clinical status.

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Figure 2 appendix with peritoneal liquid

The histopathological examination of the operative specimen found macroscopically a gallbladder of 9 cm long and 6 cm in maximum circumference, its mucosa is ulcerated and hemorrhagic, and its wall is moderately sclerotic, histologically: a cholecystitis in gangrenous acute thrust.

## DISCUSSION

Acute acalculous cholecystitis (AAC) is a rare disorder, accounting for 2 to 11% of the acute calculous cholecystitis (ACC)[2], which may be unknown. Age is variable according to the series and etiopathogenic factors; in fact, AAC can occur at any age and can be observed in both sexes, most often in the fifties with a clear male predominance, unlike ACC that occur particularly in women [3].

The circumstances of occurrence are numerous, the most frequent in a context of stress in the operated, polytrauma, burns, patients with sepsis or in the context of systemic disease, more rarely AAC by malformation of the bile ducts, finally cholecystitis without detectable cause.

The time of onset varies from 4 to 40 days following an etiopathogenic factor, the clinical symptomatology is identical to that of ACC with an always brutal onset, often difficult to interpret, which may make it the differential diagnosis with certain surgical emergencies such as [4]: acute pancreatitis, appendicitis, peritonitis, intestinal obstruction, mesenteric infarction, and even with medical emergencies: myocardial infarction in its abdominal form, acute pyelonephritis, hepatitis. Abdominal ultrasound remains the key examination to make the positive diagnosis of AAC, by showing all the echographic characters of a cholecystitis but without gallstone [5], in case of doubt, exploratory laparotomy for some authors is the best means of diagnosis. and the discovery of a large oedematous gallbladder, must be enough to carry conviction [6].

The medical treatment must always proceed without delaying the intervention and includes bed rest, digestive aspiration, antibiotherapy, antispasmodic, clinical and ultrasound observations of AAC favorable evolution under simple medical treatment have been reported.

In agreement with the majority of the authors on the imperative character, the cholecystectomy after a good exploration of the whole abdominal cavity is the intervention of choice [7], it must be immediate, especially in the circumstances where the risk of for serious complication exposing gangrene or biliary peritonitis is high, tactical both safe for the patient and economical for the community.

The gallbladder will be entrusted to the pathologist. Intraoperative cholangiography is a useless and dangerous gesture. Hepatic drainage is a safety feature.

Much more serious, fortunately rare, the necrotic lesions of the main bile duct pose a different problem and some authors advocate either an internal drainage by "Y" loop, or external drainage through the necrotic burn.

The mortality rate is particularly serious for AAC with 15 to 50% against a low mortality of the ACC (1 to 12%).

Three factors seem to be involved, the advanced age and general poor state of the patient, gangrenous lesions, especially the delayed diagnosis and therapy [3]. Postoperative morbidity is 24 to 30%. Only early diagnosis and urgent treatment can improve the prognosis [7].

## CONCLUSION

Acalculous gangrenous cholecystitis is a serious and severe complication. It occurs preferentially in elderly and fussy subjects. Early diagnosis remains in the majority of cases uncertain despite advances in imaging, so it is recommended to operate urgently diagnosed acalculous cholecystitis.

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