

Spontaneous healing of gallbladder perforation: Report of a case

Spontan iyileşmiş safra kesesi perforasyonu: Olgu sunumu

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Gallbladder perforation is a serious complication of acute cholecystitis. Spontaneous healing is very rare, and only three cases have been reported in the English literature. In this study, we present a 73-year-old female patient who underwent a laparoscopic cholecystectomy years after a gallbladder perforation and spontaneous healing.

Safra kesesi perforasyonu akut kolesistitin oldukça ciddi bir komplikasyonudur. Spontan iyileşme oldukça nadir olarak görülür ve literatürde yalnızca üç vaka bildirilmiştir. Bu çalışmada, safra kesesi perforasyonu sonrası spontan iyileşmiş ve yıllar sonra laparoskopik kolesistektomi uygulanmış 73 yaşındaki kadın hasta sunulmaktadır.

Key words: Cholecystitis, cholecystectomy, perforation

Anahtar kelimeler: Kolesistit, kolesistektomi, perforasyon

INTRODUCTION

Gallbladder perforation (GBP) is a fatal complication of acute cholecystitis. Twenty percent of acute cholecystitis patients may progress to some severe complications such as empyema, gangrene and perforation (1-3).

Niemeier classified GBP in 1934 as Type I (acute-free perforation and generalized peritonitis), Type II (subacute perforation, pericholecystic abscess and localized peritonitis), and Type III (chronic perforation, cholecystenteric fistula) (4). This classification is still used today. In Type I and Type II, peritoneal irritation is the major clinical finding and early surgical intervention is lifesaving (1-3, 5).

Spontaneous healing of GBP is very rare, and only three cases have been reported in the English literature. We present in this report a patient who underwent cholecystectomy with the diagnosis chronic calculous cholecystitis years after a GBP and spontaneous healing.

CASE REPORT

A 73-year-old female patient was admitted to the hospital with the diagnosis of cholelithiasis. She

had experienced dyspeptic symptoms and right upper abdominal pain for the last seven years. She reported experiencing some severe pain in the same region approximately two years before, which she described as slightly different and stronger than in previous episodes, and high fever lasting for a few days. These symptoms had regressed spontaneously, and she had not visited any health center at that time.

Systemic physical examination and routine blood tests were normal. Abdominal ultrasound scan showed multiple 3-4 mm gallstones in the gallbladder. No other intraperitoneal pathology was seen. A laparoscopic cholecystectomy was planned. Laparoscopic exploration revealed a hydropic gallbladder and many free gallstones, some covered by the omentum, in the peritoneal space (Figure 1). No perforation, scar area or sign of malignancy was seen on the wall of the gallbladder, and it was not covered with omentum or other adjacent tissues. Neither the cystic duct nor the artery could be identified by laparoscopy because of dense adhesions around the common duct; thus, conver-

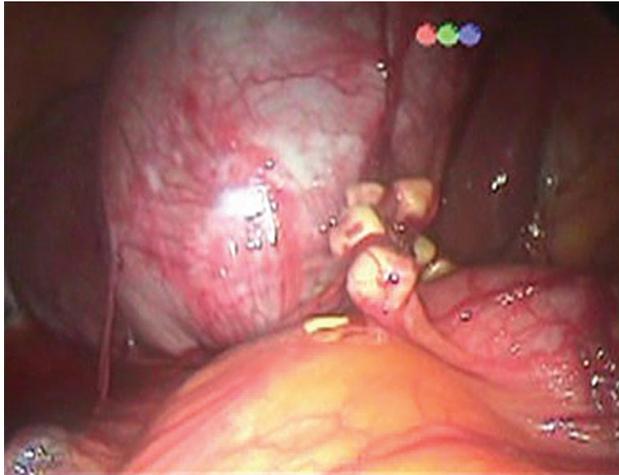


Figure 1. A hydroptic gallbladder and many free gallstones in the peritoneal space.

sion to open surgery was inevitable. Further attempts to identify the duct and artery during open surgery were unsuccessful, and cholecystectomy was performed without any ligation. No bile leak or hemorrhage was detected. Countless free gallstones were present in the peritoneal space. Some of them were in the cul-de-sac and others were entrapped by the omentum. They were removed to the extent possible. The gallbladder was full of stones showing the same characteristics, cholesterol stones, with the free gallstones in the peritoneal space (Figure 2). A drain was placed in the subhepatic area and the abdomen was closed. The patient was discharged on the fifth postoperative day. Histopathological examination of the specimen was reported as moderately differentiated adenocarcinoma of the gallbladder. Since the tumor had invaded the serosa (pT3), reoperation for a wedge

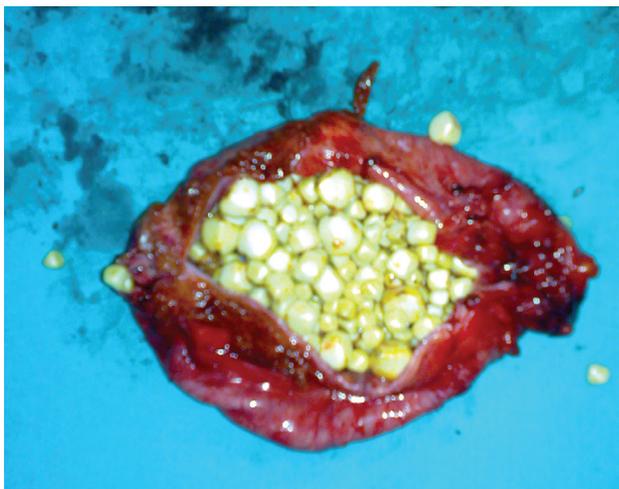


Figure 2. Appearance of the gallbladder full of stones.

hepatectomy was performed on the 12th postoperative day, and no malignant cells were identified. The patient was discharged on the 16th postoperative day uneventfully. The tumor was staged as II-A (T3N0M0), and she was referred to the Medical Oncology Clinic for adjuvant treatment.

DISCUSSION

Gallbladder perforation (GBP) is a serious complication of acute cholecystitis. The relationship between the anatomic site of the GBP and the type of the perforation could not be analyzed because of the small number of cases reported in the literature. If the perforation occurs in the fundus, the omentum is less likely to protect the perforation; thus, the bile leaks into the peritoneal space. However, in case of perforation of the infundibulum, the omentum or other adjacent tissues are protective, and plastron or pericholecystic abscess forms (6). The presence of dense adhesions between the gallbladder and the common duct, absence of scar tissue in the fundus and completion of cholecystectomy without any ligation suggest that the perforation was infundibular in the present case. However, spread of gallstones into the peritoneal space after an infundibular GBP is not common.

Spontaneous healing of GBP is also very rare. Edwards et al. (7) reported two cases in 1941, and Moragues and Simon (8) also reported a case that was diagnosed by autopsy, in 1950. The most likely explanation of the condition in our case is that the bile and numerous gallstones spread into the peritoneal space through the infundibular perforation. The patient tolerated the sterile biliary peritonitis, and the perforated gallbladder wall healed spontaneously as the intraluminal pressure had decreased. The gallbladder had regained its functions and gallstones were re-formed subsequently.

Although several acute cholecystitis episodes had occurred, the omentum or other surrounding organs did not cover the gallbladder and no adhesions were formed; thus, our case does not match Type II GBP. Because of the spontaneous healing of GBP, we could not satisfactorily categorize our case using the Niemeier classification.

In conclusion, GBP may remain clinically silent and heal spontaneously. The gallbladder may regain its functions and new gallstones may form, as in our case. Association of incidental gallbladder cancer with chronic calculous cholecystitis should be emphasized.

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