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Gallbladder Volvulus: A Case Report and Review

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Abstract- Gallbladder volvulus is an unusual cause of acute abdomen. After the first case published by Wendel, about 500 cases have been documented in the medical literature. This condition is defined as torsion of the gallbladder around its artery and duct in case of long and flask mesentery. The one presented here is a case of a 85 year-old woman who complained of right subcostal pain since 48 hours without fever. The echography revealed a large thick-walled gallbladder with a common bile duct diameter of 10mm without stones. Laparotomy through a right subcostal incision revealed a serohemorrhagic exudate with complete torsion of the gallbladder which was ischemic and gangrenous without perforation. Cholecystectomy was performed with a cholangiography which was normal. The anatomopathologic examination confirmed the diagnosis of acute gangrenous cholecystitis. Gallbladder volvulus is a non-frequent cause of acute cholecystitis.

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I. CASE REPORT

A 85 year-old woman was admitted for a right upper abdominal pain, nausea, vomiting without fever since 48 hours. She had an insulin-

dependent diabetes with no history of previous abdominal surgery or trauma, laboratory analysis revealed hyperleucocytosis with normal liver function tests. The echography revealed thick-walled gallbladder without cholelithiasis and a common bile duct dilatation of 10 mm. Right upper quadrant tenderness and positive Murphy's sign were detected on physical examination. On surgical exploration through a right subcostal incision, there was a 100 ml of sero-hemorrhagic exudate with complete torsion of the gallbladder along the axis of the cystic duct (figure1), gallbladder detortion is performed, the cystic duct was so long which measured 6 cm, it is cut at a distance of 1 cm of the common bile duct, intraoperative-cholangiography was normal (figure2), standard open choecystectomy was performed. Bile culture was positive for Echerchia Coli, therefore; antibiotherapy was adapted. Her postoperative course was uneventful, and she was discharged on the 3rd postoperative day.

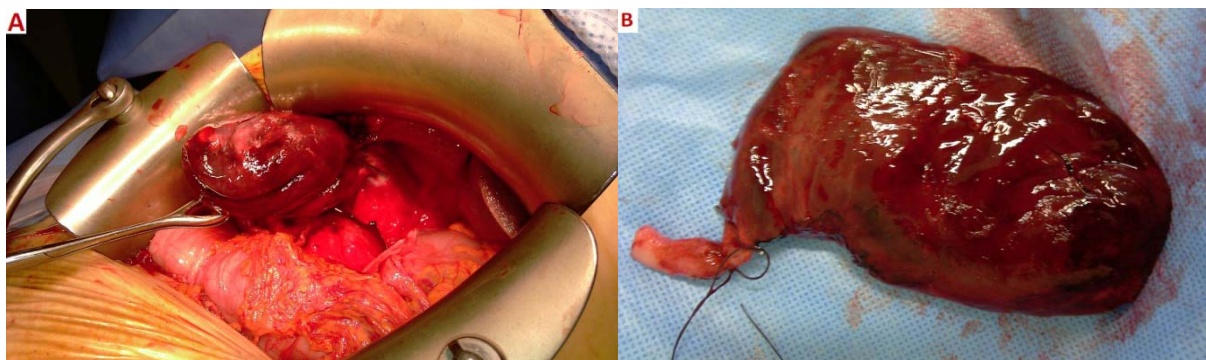


Figure 1 : A) intraoperative view of gallbladder torsion, B) specimen (gallbladder) after resection

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Figure 2 : Intraoperative cholangiography shows the long cystic duct with no stones in common bile duct

II. DISCUSSION

Gallbladder volvulus is defined as torsion of the gallbladder around its artery and duct in case of a long and flask mesentery(1). After the first case published by Wendel in 1898(2), about 500 cases have been documented in the medical literature in 2 to 100 year-old patients (3,4). Gallbladder torsion occurs most often in elderly patients (5,6,7), but several cases were reported in children(8,9). The one presented here was a surprise intraoperative diagnosis because of the presumed acalculous cholecystitis in our diabetic patient, gallbladder volvulus commonly presents as acute cholecystitis and is rarely diagnosed preoperatively. This condition should be always suspected when making the differential diagnosis of acute cholecystitis in elderly patients especially in women. Magnetic resonance cholangiopancreatography (MRCP) is very useful in making preoperative definitive diagnosis of gallbladder torsion(10). Gallbladder torsion was reported in pregnancy(11). Gallbladder volvulus should be thought in case of acute cholecystitis that does not improve after suitable medical treatment. Delayed diagnosis can lead to dangerous complication such as necrosis and perforation of the gallbladder with a generalized peritonitis, consequently; mortality is increased especially in elderly patients who have often other comorbidities(5). laparoscopic detorsion and removal of gallbladder is the treatment of choice for gallbladder volvulus (4,12).

III. CONCLUSION

Gallbladder volvulus is a rare cause of acute abdomen which is rarely diagnosed before surgery. It should be added to the differential diagnosis of acute

cholecystitis that does not improve after medical treatment especially in elderly women. Early diagnosis and urgent cholecystectomy is necessary for optimal prognosis.

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