

# 1 Gallbladder Volvulus: A Case Report and Review

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## 5 **Abstract**

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

## 18 **Index terms**

19 Abstract-Gallbladder volvulus is an unusual cause of acute abdomen. After the first case published by Wendel,  
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21 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  
22 pain since 48 hours without fever.  
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24 Cholecystectomy was performed with a cholangiography which was normal. The anatomopathologic  
25 examination confirmed the diagnosis of acute gangrenous cholecystitis. Gallbladder volvulus is a non-frequent  
26 cause of acute cholecystitis.

## 28 **I.**

29 Case Report 85 year-old woman was admitted for a right upper abdominal pain, nausea, vomiting without  
30 abdominal surgery or trauma, laboratory analysis revealed hyperleucocytosis with normal liver function tests.  
31 The echography revealed thick-walled gallbladder without cholelithiasis and a common bile duct dilatation of  
32 10 mm. Right upper quadrant tenderness and positive Murphy's sign were detected on physical examination.  
33 On surgical exploration through a right subcostal incision, there was a 100 ml of serohemorrhagic exudate with  
34 complete torsion of the gallbladder along the axis of the cystic duct (figure1), the cystic duct was so long which  
35 measured 6 cm, it is cut at a distance of 1 cm of the common bile duct, intraoperative cholangiography was  
36 normal (figure2), standard open cholecystectomy was performed. Bile culture was positive for *Escherichia Coli*,  
37 therefore; antibiotic therapy was adapted. Her postoperative course was uneventful, and she was discharged on  
38 the 3rd postoperative day.

## 39 **2 Discussion**

40 Gallbladder volvulus is defined as torsion of the gallbladder around its artery and duct in case of a long and flask  
41 mesentery (1). After the first case published by Wendel in 1898(2), about 500 cases have been documented  
42 -old patients (3,4). Gallbladder torsion occurs most often in elderly patients (5,6,7), but several cases were  
43 reported in children (8,9). The one presented here was a surprise intraoperative diagnosis because of the

## 4 CONCLUSION

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44 presumed gallbladder volvulus commonly presents as acute cholecystitis and is rarely diagnosed preoperatively.  
45 This condition should be always suspected when making the patients especially in women. Magnetic resonance  
46 cholangiopancreatography (MRCP) is very useful in making preoperative definitive diagnosis of gallbladder  
47 torsion (10). Gallbladder torsion was reported in pregnancy (11). Gallbladder volvulus should be thought suitable  
48 medical treatment. Delayed diagnosis can lead to dangerous complication such as necrosis and perforation of the  
49 gallbladder with a generalized peritonitis, consequently; mortality is increased especially in elderly patients who  
50 have often other comorbidities (5). laparoscopic detorsion and removal of gallbladder is the treatment of choice  
51 for gallbladder volvulus (4,12).

## 52 3 III.

## 53 4 Conclusion

54 Gallbladder volvulus is a rare cause of acute abdomen which is rarely diagnosed before surgery. It should be  
55 added to the differential diagnosis of acute cholecystitis that does not improve after medical treatment especially  
56 in elderly women. Early diagnosis and urgent cholecystectomy is necessary for optimal prognosis.

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Figure 1:

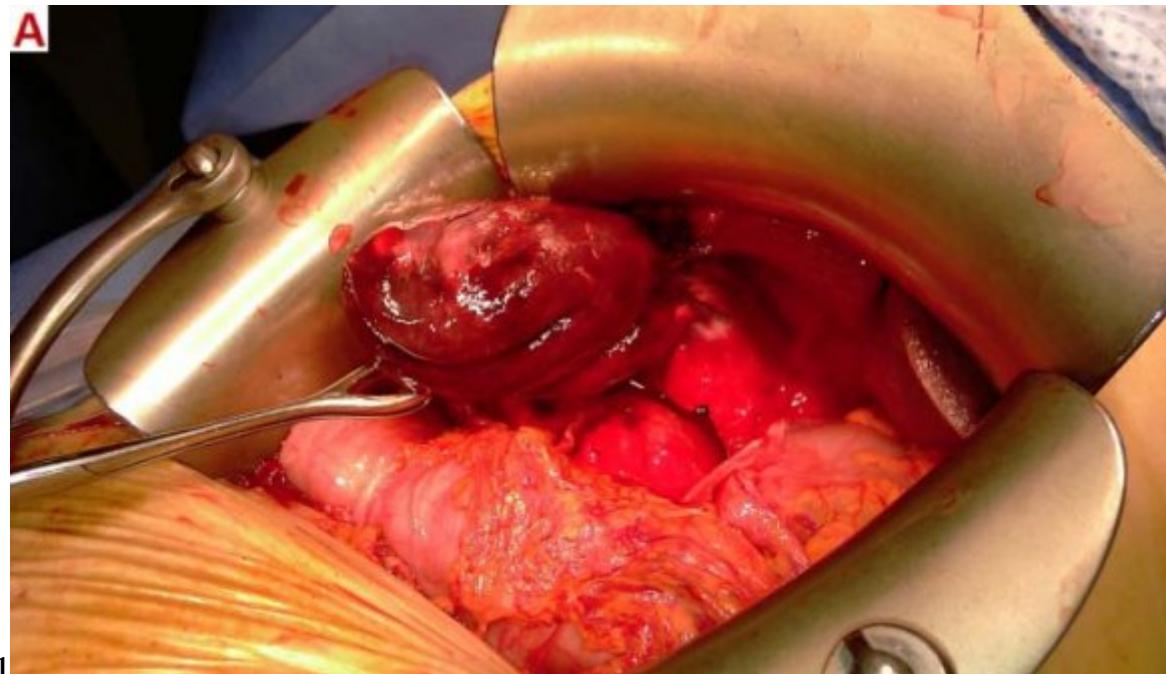


Figure 2: Figure 1 :



Figure 3: Figure 2 :

## **4 CONCLUSION**

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