

Case	(495) Hemorrhagic cholecystitis: a rare cause of upper gastrointestinal bleeding.
Authors	J. Ramírez Calderón, L. Ibañez Sanz, M. Depetris, V. Gerónimo, Z. Chen Zhou, S. Borruel Nacenta.
Centre	Hospital 12 De Octubre.

## CASE PRESENTATION

A 87-year-old woman with a history of symptomatic cholelithiasis and acetylsalicylic acid intake, attended the emergency with a 4-days abdominal pain and nausea. An ultrasound was performed that showed a distended gallbladder with mural thickening and multiple cholelithiasis as signs of acute cholecystitis. 5 days later and after conservative treatment, she presented a worsening clinic with the appearance of manes.

A new ultrasound was performed showing abundant echogenic and heterogeneous intravesicular content of new onset. CT was performed revealing hyperdense content in gallbladder and within the cystic and common bile duct, suggesting hemorrhagic cholecystitis.

At surgery, a very distended gallbladder was observed and, performing a puncture, surgeons obtaining abundant blood and clots. Cholecystectomy was performed with favorable evolution.

## DISCUSSION

Hemorrhagic cholecystitis (HC) is a rare complication of acute cholecystitis [1].

It is associated with high mortality [2]. Pathologically, hemorrhage may be caused by mural inflammation and subsequent mucosal infarction and erosion [3].

It may occur in the setting of gallstones or without them, trauma, vascular abnormalities, ectopic pancreatic or gastric mucosa, [1], anticoagulation, bleeding diathesis, antiaggregation, corticosteroids, neoplasms, iatrogenic and even parasites [2].

Hemorrhage in the gallbladder can be evacuated through the cystic duct causing abdominal pain, hematemesis and melena. Clots or associated gallstones can cause biliary tract obstruction, with biliary colic or jaundice, cholangitis, or obstructing the gallbladder causing its rupture and hemoperitoneum [2].

At US, blood in the gallbladder is similar to the echogenic bile seen with pus or thick sludge [4].

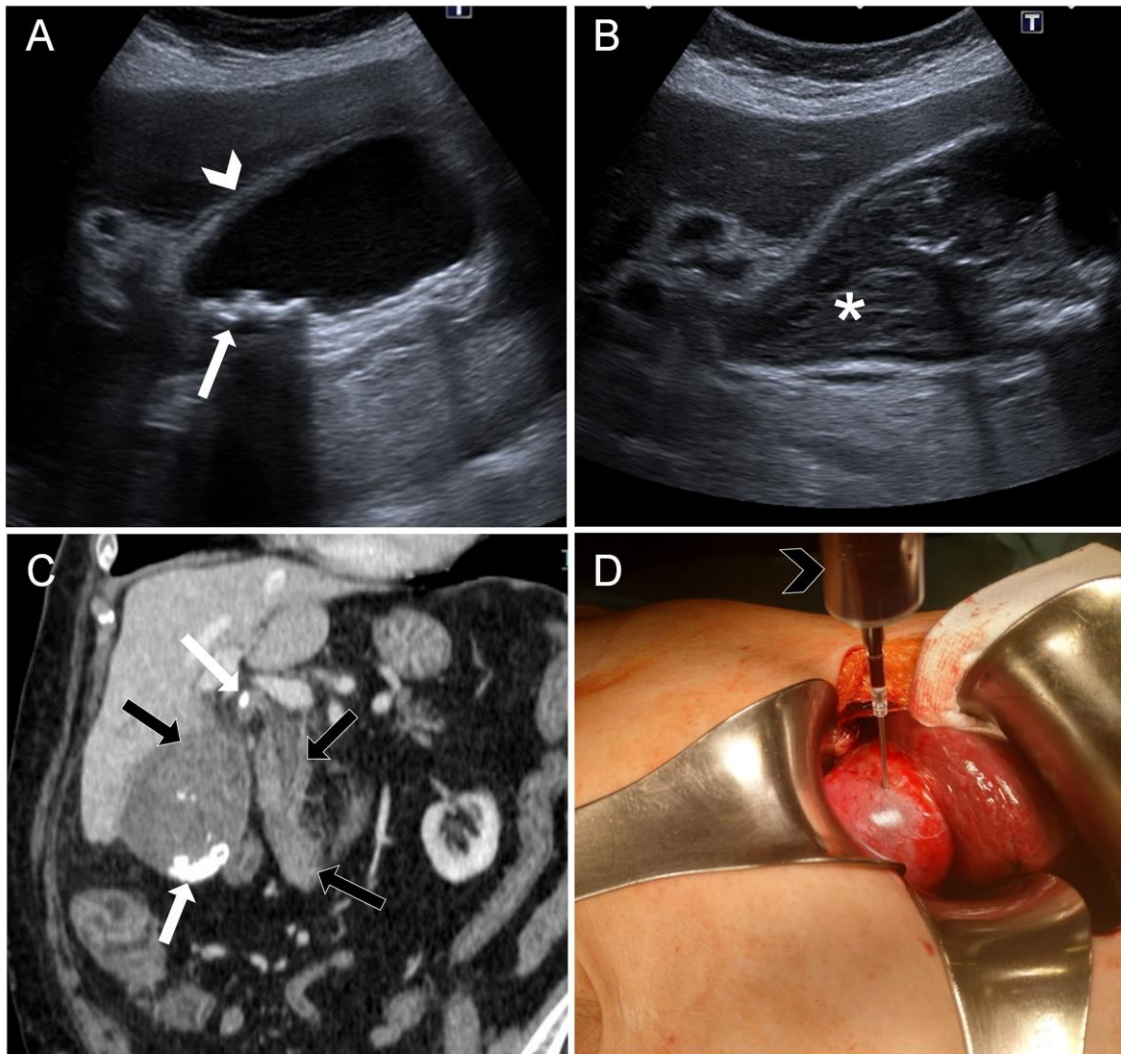
Wall irregularity or intraluminal membranes can be present [5].

CT can show hyperattenuating bile with possible fluid-fluid level as well as typical findings of acute cholecystitis. Active contrast agent extravasation at arterial phase indicates active bleeding. Hemorrhage should be differentiated from other causes of hyperattenuating bile, such as vicarious contrast agent excretion, biliary sludge or layering gallstones, and milk of calcium bile [3].

Free hyperattenuating fluid in abdominal cavity should raise the suspicion of hemoperitoneum secondary to perforation. Urgent cholecystectomy is necessary either by laparoscopy or laparotomy, in combination with antibiotic treatment [2].

## CONCLUSION

CH is a rare cause of upper gastrointestinal bleeding, that can be fatal if it is not diagnosed and treated early. Our patient presented two risk factors: cholelithiasis and antiaggregation therapy and obtained good results with surgical management.



A. US performed at admission showing gallbladder distention, mural thickening (white arrowhead) and cholelithiasis (white arrow). B. Ultrasound performed 5 days later demonstrating heterogeneous echogenic content (\*) with greater distension. C. Coronal contrast enhanced CT revealed cholelithiasis (white arrows) and hyperdense content (black arrows) in a distended gallbladder and biliary tract suggestive of hemorrhagic cholecystitis. D. At surgery, puncture obtained blood and clots (black arrowhead) prior to cholecystectomy.

## BIBLIOGRAPHY

- Watanabe Y, et al. MR Imaging of Acute Biliary Disorders. *RadioGraphics*. 2007;27(2):477-495.

- Calvo Espino P, et al. Perforated Hemorrhagic Cholecystitis. Cir Esp (English Edition). 2016;94(2):e35-e36.
- Patel N, et al. Multidetector CT of Emergent Biliary Pathologic Conditions. RadioGraphics. 2013;33(7):1867-1888.
- Jenkins M, et al. Sonography and computed tomography of Hemorrhagic Cholecystitis. AJR. 1983;140(6):1197-1198.
- Chinn D, et al. Hemorrhagic Cholecystitis. Sonographic appearance and clinical presentation. J Ultrasound M. 1987;6(6):313-317.