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Clinical Image

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Gallbladder torsion: Clinical image

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Description

An 85-year-old woman presented with progressive abdominal pain and vomiting for 4 days. Her past medical history was unremarkable. On physical examination, she had tenderness in the right lower quadrant of the abdomen without rebound or guarding. Laboratory test showed a slightly elevated white cell count of 10.5×10^9/L with 84.3% neutrophils. Urgent non-contrast Computed Tomography (CT) scan of the abdomen revealed a conspicuous "whirl" sign at the the cystic pedicle, a distended and horizontally displaced gallbladder with a thickened, hyperattenuating wall, and an abrupt angulation of gallbladder neck (Figure 1A-1C). At emergency laparotomy, the gallbladder was gangrenous and rotated around its pedicle in a 540° clockwise manner. De-torsion and cholecystectomy were performed. Histologic examination showed extensive transmural hemorrhagic necrosis (Figure 1D). The patient recovered well postoperatively.

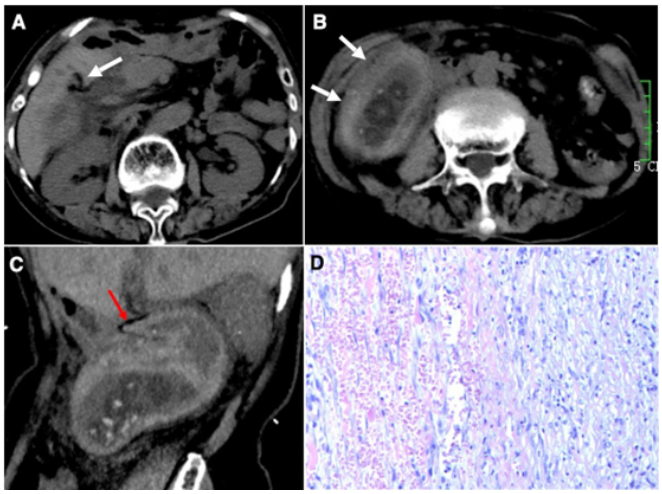

Figure 1: **(A)** Axial unenhanced CT image revealing a classic "whirl" sign at the gallbladder fossa (arrow), pathognomonic for a gallbladder torsion. **(B)** Axial unenhanced CT image showing a distended and horizontally displaced gallbladder with diffusely thickened, spontaneously hyperattenuating wall (arrows), suggestive of a free-floating, necrotic gallbladder. **(C)** Oblique sagittal reconstruction CT image showing lower position of gallbladder in the right lower quadrant, with an abrupt angulation of its neck (arrow). **(D)** Pathological histology showing haemorrhagic necrosis of gallbladder wall, consistent with a gangrenous gallbladder.

Discussion

Gallbladder torsion, usually occurring in elderly women, is a rare abdominal emergency with a reported mortality up to 6% [1]. Early diagnosis is the key to preventing potentially fatal sequelae, such as gallbladder perforation. The clinical presentation is often non-specific, which makes this condition easily confused with acute abdomen. Just like our case, gallbladder torsion mimics the clinical picture of appendicitis owing to the lower position of gallbladder. Although it is rare, clinicians must remain alert to the possibility of gallbladder torsion in those patients with right lower quadrant pain [2]. CT is recommended if this pathology is suspected. This patient portrays classic CT signs: (1) a “whirl sign” pathognomonic for gallbladder torsion; (2) diffusely thickened wall with haemorrhage, indicating gangrenous cholecystitis secondary to vascular compromise [3,4].

Author declarations

Conflict of interest statement: The authors declare no conflicts of interest.

Data availability statement: Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Informed consent: Written informed consent has been obtained from the patient. This is held by the corresponding Author together with the Patient's medical record, and is available upon request.

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