



Case 2

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75 y/o, female

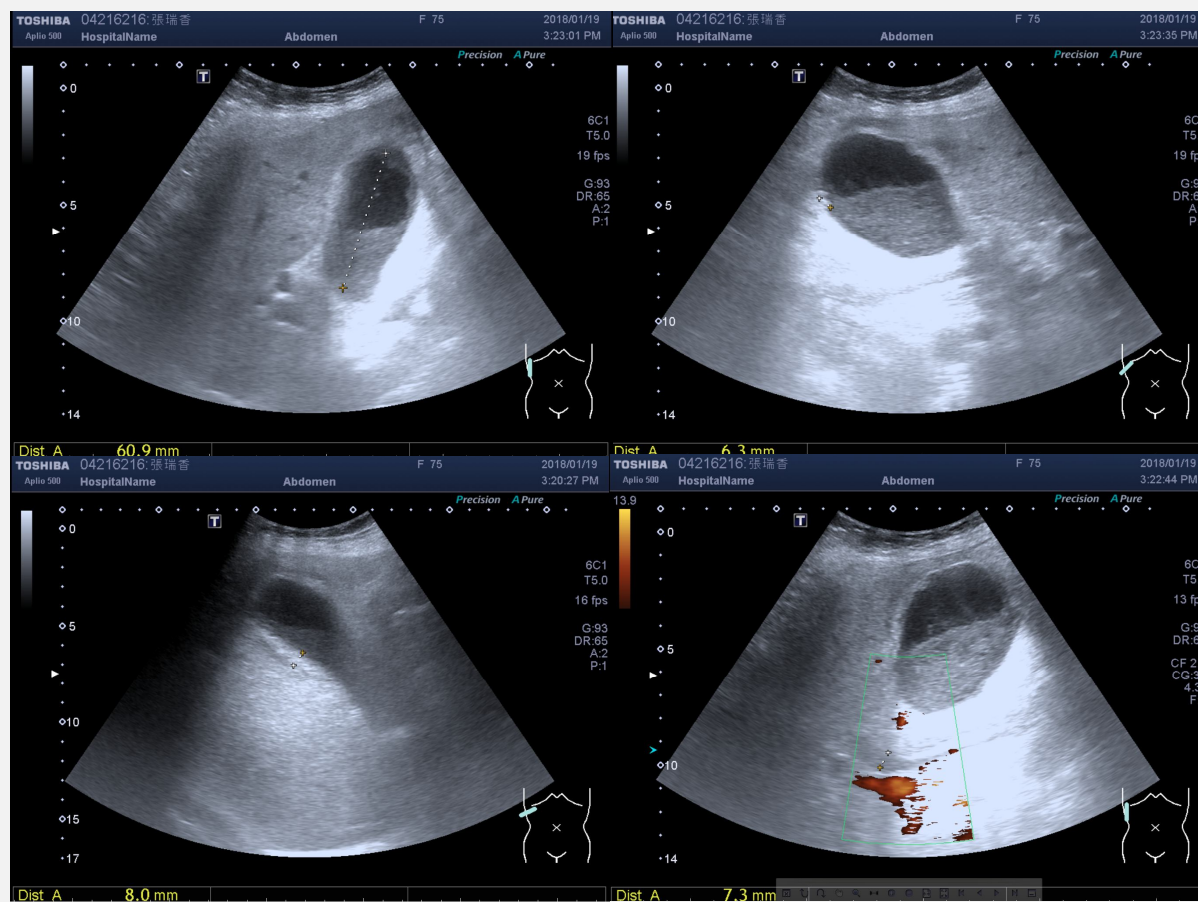
- PHx: HTN, DM
- CC: epigastric pain
- Lab: GOT: 33 U/L, GPT: 75 U/L, Bilirubin T: 0.7 mg/dl, WBC: 6350 /uL .

Imaging

- 107-01-19 Abdominal US
- 107-01-29 Abdominal CT

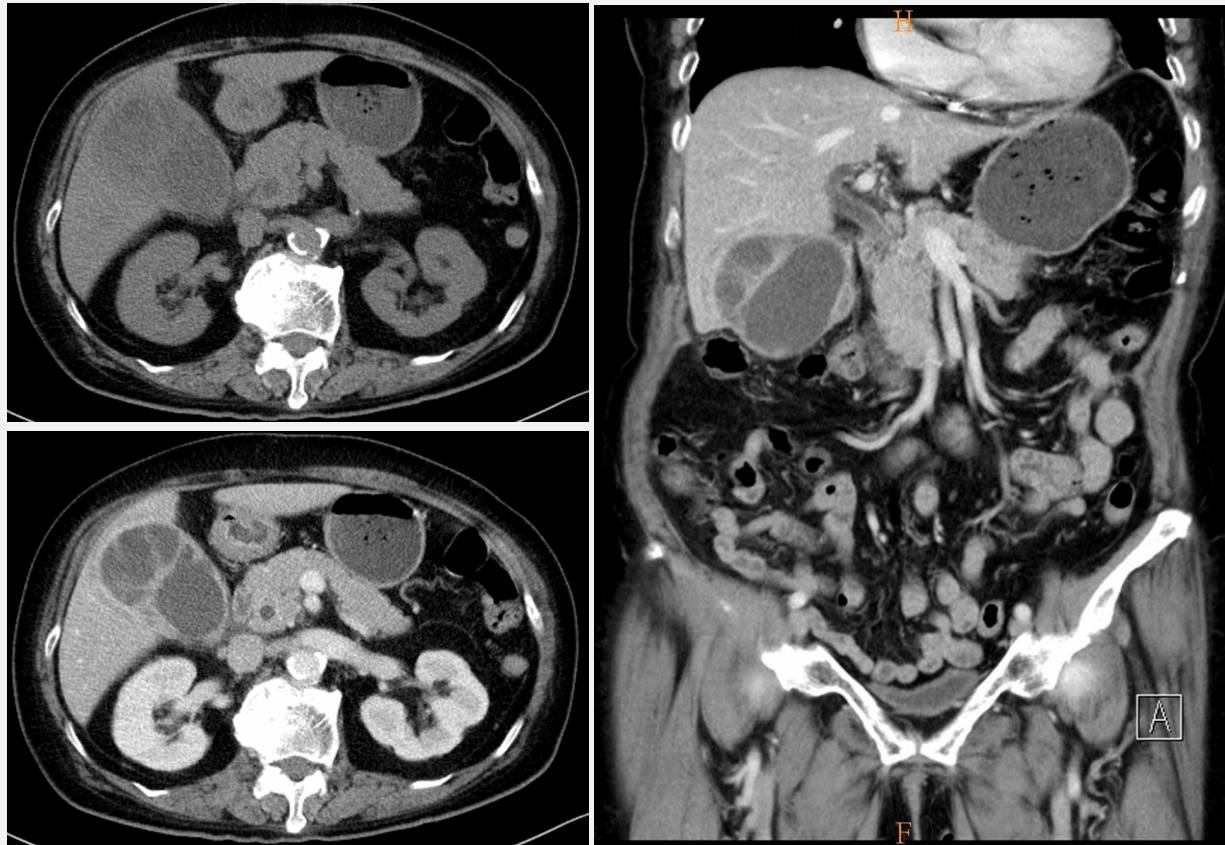
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Imaging 107-01-19



Case 2

Imaging 107-01-29



Case 2

Differential diagnosis

- Xanthogranulomatous cholecystitis
- Gallbladder carcinoma

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Pathology

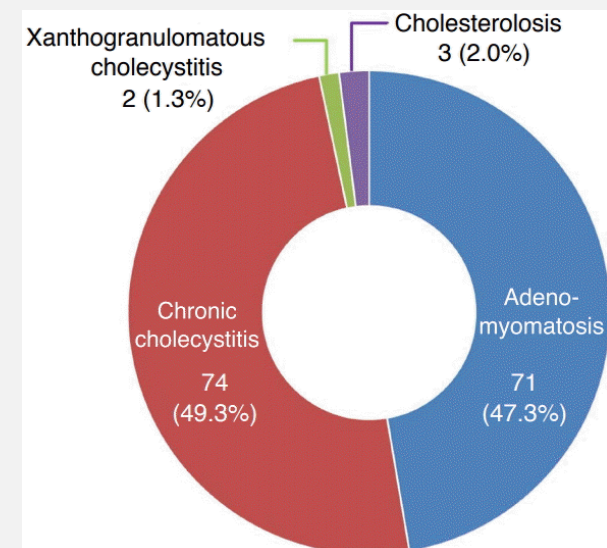
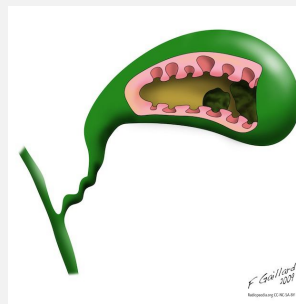
- Diagnosis : Gallbladder, laparoscopic cholecystectomy, (1) chronic cholecystitis with acute exacerbation, (2) cholelithiasis
- The specimen submitted consists of a gallbladder, measuring 6.8 x 3.5 x 1.7 cm in size, fixed in formalin.
- Grossly, the serosa of gallbladder is smooth and congested. It has been opened. The mucosa is stained and coated with greenish material. Ulceration is seen grossly. The wall is edematous and measures up to 0.7 cm in thickness. There are seven gall stones, measuring up to 0.6 cm in diameter. The gallstones are black in color and hard in consistency.
- Microscopically, it shows a picture of acute exacerbation of chronic cholecystitis with focal ulceration, mixed acute and chronic inflammatory cell infiltration in the lamina propria and wall, and proliferation of stromal cells and focal fresh hemorrhage in the wall. Focal Rokitansky-Aschoff sinus formation is seen. One unremarkable lymph node is also included.

Case 2

Comet tail artifact



Cholesterol-filled intramural cysts



Case 2

Xanthogranulomatous cholecystitis (XGC)

- Patients typically present with symptoms and signs similar to cholecystitis (female patients at 60-80 years of age)

Pathology

- Histologically, it consists of a wax-like xanthogranuloma with foamy histiocytes, multinucleated foreign body giant cells, lymphocytes and fibroblasts containing areas of necrosis.
- It is postulated that xanthogranulomatous cholecystitis results from rupture of occluded Rokitansky-Aschoff sinuses, with subsequent intramural extravasation of inspissated bile and mucin. This further attracts histiocytes to phagocytize the insoluble cholesterol.

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Xanthogranulomatous cholecystitis (XGC)

Radiologic appearances

- **Ultrasound**
 - Gallbladder wall thickening may be diffuse (90%) or focal (10%)
 - Intramural hypoechoic nodules or bands
 - **Hepatic extension (45%):** loss of the intervening fat plane, with focal hypoechogenicity of hepatic parenchyma (inflammatory infiltration of adjacent liver)
 - Gallstones often present
- **CT**
 - 5-20 mm small intramural hypoattenuating nodules
 - Poor/heterogeneous contrast enhancement
 - Features of local infiltration, or other complications, such as perforation, abscess formation or formation of fistulous tracts



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Xanthogranulomatous cholecystitis (XGC)

Differential diagnosis

- **Gallbladder adenomyomatosis**
 - Diffuse epithelial and smooth muscle proliferation likely in response to chronic GB obstruction.
 - Dilated Rokitansky-Aschoff (RA) sinuses contribute to formation of intramural diverticula that may contain bile, cholesterol, sludge, or stones.
 - *cf.: Scar formation* of XGC leads to a higher complication rate (up to 32%)
- **Gallbladder carcinoma**
 - *Inflammatory changes outside the gallbladder* should raise suspicion for XGC or GB carcinoma.
 - The presence of *hypoattenuating nodules* within the thickened gallbladder wall favours xanthogranulomatous cholecystitis
 - Because of its imaging similarity to gallbladder carcinoma, cholecystectomy is often performed.