

REMARKS

1 Plain radiograph

1.1 Abdominal X-ray (AXR) is not indicated as the majority of gallstones are not radioopaque.

2 US

- 2.1 US is the initial imaging modality of choice in the work-up of suspected biliary disease as it is sensitive to diagnose gallstones and gallbladder diseases.
- 2.2 Although cholescintigraphy is recognized to have a higher sensitivity and specificity, US remains the initial test of choice for imaging patients with suspected acute cholecystitis for a variety of reasons, including greater availability, shorter study time, lack of ionizing radiation, morphologic evaluation, confirmation of the presence or absence of gallstones, evaluation of intrahepatic and extrahepatic bile ducts, and identification or exclusion of alternative diagnoses.¹¹

3 CT

- 3.1 CT plays an important role in the detection of complications of acute cholecystitis in patients who fail to improve on conventional treatment.¹⁰
- 3.2 CT also plays a role in the staging of malignant biliary disease. It has the advantage of detecting extrahepatic metastases.

4 MRI

4.1 MRI including magnetic resonance cholangiopancreatography (MRCP) is a noninvasive method to assess the biliary tree.

5 Cholangiography

- 5.1 Endoscopic retrograde cholangiopancreatography (ERCP) and percutaneous transhepatic cholangiogram (PTC) provide direct imaging of the biliary tree but are not very reliable in diagnosing gallbladder calculi. Stone extraction can be performed at the same time during ERCP.
- 5.2 PTC is good for hilar ductal obstruction and its management.

6 Cholescintigraphy

- 6.1 Cholescintigraphy has the highest sensitivity and specificity in patients suspected with acute cholecystitis.¹³ In clinically equivocal cases, cholescintigraphy should be considered.
- 6.2 Cholescintigraphy is indicated in a number of hepatobiliary diseases,¹² including: acute cholecystitis, chronic cholecystitis (with gallbladder ejection fraction calculation), functional biliary pain syndromes, sphincter of Oddi dysfunction, assessment of biliary system patency and bile leakage, liver transplant assessment etc.

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