

Cystic lesions

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Simple liver cysts Simple cysts of the liver are usually asymptomatic and were thought to be uncommon before the routine use of ultra-sonography. The exact prevalence and incidence are not known but they are estimated to occur in 5% of the population with 10–15% presenting because of symptoms. Fortunately, their appearance on ultrasonography and MRI scanning generally allows them to be dismissed; confusion usually only occurs when CT scanning was the initial investigation. Cysts are more common in females (1.5:1) and are larger in patients over 50 years of age. The situation is different for very large symptomatic or complex cysts, which are 10 times more common in women, and huge cysts requiring treatment in men are rare. Most cysts only cause problems and require treatment when they increase in size or become complex or infected. Prior to treatment it is important to exclude other causes, particularly parasitic infections.

Polycystic liver disease Multiple liver cysts are frequently associated with adult polycystic kidney disease (PKD) but may occur alone. PLD is a term for a heterogeneous group of patients; it is an inherited disorder estimated to affect around 1 in 1000 people and 10% have cerebral aneurysms. It is characterised by the progressive growth of cysts of various sizes that are widely and randomly distributed throughout the liver. In many patients the cysts are asymptomatic but when extensive they produce mechanical symptoms from stretching of the liver capsule, pressure effects on the stomach when the left side is involved and gross abdominal distension related to the large increase in the size of the liver. Cysts can become infected, but this normally follows ill-advised aspiration of what is felt to be a symptomatic cyst. Biliary obstruction occurs as a result of distortion or compression and must be treated endoscopically as there is no surgical option. Surgical treatment is usually employed for bulk reduction or a mechanical problem and, when planning surgery, it is important to remember that biliary radicals and vessels run between cysts and are difficult to differentiate from the wall.

Hepatic cystadenomas and cystadenocarcinomas The prevalence of hepatic cystadenomas is low, with fewer than 200 cases reported. Of the two types, cystadenomas with mesenchymal (ovarian-like) stroma occur only in females and men. Cystadenomas are often multilocular, septated, non-calcified and surrounded by compressed liver tissue. Upper abdominal pain and an abdominal mass can occur, but patients are usually asymptomatic. Cystadenomas are slow growing but have malignant potential and must be distinguished from simple hepatic cysts, polycystic liver disease, hydatid cysts and complex non-neoplastic cystic lesions. Serum and cyst fluid CA 19-9 levels may be elevated in cases of cystadenoma with mesenchymal stroma, but serum carcinoembryonic antigen (CEA) is unhelpful although it may be raised in cyst fluid. Cyst fluid cytology is unreliable. Ultrasonography may demonstrate an anechoic mass with internal septations. CT scanning generally demonstrates the multilocular nature with internal septations. In the contrast phase, the wall of the cyst enhances and nodules may be seen. MRI also demonstrates septations and a hyperintense signal on T2-weighted images. The risk of recurrence and the potential for malignant transformation mandates complete anatomical resection. If the lesions are technically irresectable or cannot be separated from major venous or arterial structures liver transplantation may be required. Biliary cystadenocarcinomas account for 0.4% of malignant epithelial hepatic lesions.

Revision #1

Created 2025-12-31 15:25:36 UTC by Omar Ayman

Updated 2025-12-31 15:25:36 UTC by Omar Ayman