Intracystic hemorrhage complicating multiple liver cysts

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ABSTRACT

The occurrence of intracystic hemorrhage in benign liver cysts is usually seen in huge solitary cysts in older individuals. Hemorrhage complicating one of the multiple cysts has rarely been reported. We report a case of multiple simple hepatic cysts with intracystic hemorrhage complicating one of the cysts. A 60-year-old woman was admitted with complaints of abdominal discomfort of 6 months duration and abdominal pain with increasing intensity of 2 months duration, not responding to analgesics and was anicteric. On thorough evaluation, a diagnosis of complicated liver cyst was made and her severe symptoms necessitated intervention. Per-operatively, multiple thick walled huge cysts were seen on the surface of the liver. The largest one in the right lobe was complicated by hemorrhage. The cysts were aspirated and deroofed. There were no solid components or biliary communications in the cysts.

Key words: Biliary cystadenoma, cyst deroofing, intracystic hemorrhage, simple hepatic cyst

INTRODUCTION

Hepatic cystic diseases are classified as congenital, traumatic, infectious, neoplastic or parasitic cysts.[1,2] The complications reported include portal hypertension,[2] obstructive jaundice,[3] rupture,[4] infection[5-7] and intracystic hemorrhage.[1,8-11] Hemorrhage is usually seen in huge solitary cysts, frequently in older individuals. The overall complication rate is low (10%) of which hemorrhage and infection are the most common.[12] Hemorrhage complicating one of the multiple cysts has rarely been reported. These hemorrhagic liver cysts can mimic biliary cystadenomas or cystadenocarcinoma causing dilemma. We report a case of a patient with hemorrhage complicating one large cyst in the right lobe.

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CASE REPORT

This is a case report of a 60-year-old woman, who presented with abdominal discomfort of 6 months duration and abdominal pain, increasing in intensity for 2 months and not responding to analgesics. She had no known comorbidities. On examination, she was normotensive, anicteric and abdominal examination revealed significant hepatomegaly reaching below the umbilicus. Abdominal ultrasound (US) showed a large multiloculated cyst in the liver along with a cortical cyst in the left kidney. On further evaluation, contrast-enhanced computed tomography (CECT) showed presence of multiple cystic lesions involving both the lobes of liver with peripheral enhancement, largest measuring 20 cm × 19 cm × 12 cm in the right lobe [Figure 1a and b] and bilateral multiple corticomedullary cysts, largest measuring 4.7 cm × 4.3 cm × 4 cm in the left kidney. Her liver and renal functions were well-preserved despite the multiple cysts.

Though the possibility of autosomal dominant polycystic kidney disease could not be ruled out, it seemed highly unlikely in the absence of hypertension or any suggestive family history. Though simple cysts do not mandate intervention, her severe symptoms necessitated surgery. Laparotomy and decompression of the cysts was preferred for this complicated hepatic cyst over laparoscopy in view of the large size of the cysts. Per-operatively, multiple thick walled cysts were seen on the surface of the liver. The largest one in the right lobe was complicated by hemorrhage. The cysts were aspirated and deroofed [Figures 2, 3a and b]. There were no solid components or biliary communication. Histopathology showed fibrocollagenous cyst wall lined with low cuboidal epithelium suggestive of simple cyst.

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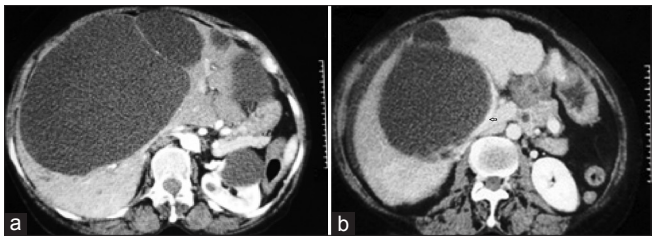

Figure 1: (a) Multiple hypodense lesions in both lobes of the liver and left renal cysts; (b) peripheral wall enhancement (arrow)

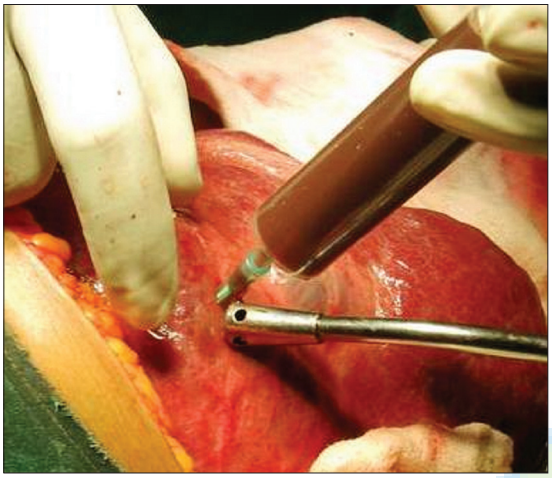

Figure 2: Multiple large cysts occupying right and left lobe of liver and aspirate reveals intracystic hemorrhage

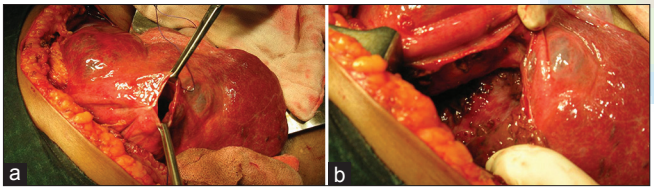

Figure 3: (a) Opening of the large cyst in the right lobe; (b) cyst cavity after deroofing

DISCUSSION

Simple hepatic cysts are commonly solitary, asymptomatic lesions detected incidentally during abdominal imaging/laparoscopy. Simple cysts are formed as the result of excluded hyperplastic bile duct rests. Microscopically, the hepatic cyst wall consists of three layers.[1] The cyst epithelium secretes fluid that may be serous, turbid, or frankly bilious. The epithelial lining may undergo necrosis and sloughing if the intracystic pressure becomes too high leading to intracystic hemorrhage. The prevalence, which is difficult to estimate as most of the asymptomatic cysts go unnoticed, is approximately 3% by US studies[13] and has a female preponderance (4:1).[14] Large cysts tend to occur in older women >50 years of age. Although most patients with liver cysts are asymptomatic, a minority develop symptoms. A dominant cyst may cause pain because of its enlarging size, pressure, or bleeding. The symptoms may include epigastric fullness, abdominal pain, early satiety nausea and vomiting. Symptoms should only be attributed to the cyst when clinically the cyst is large and all other likely clinical diagnoses have been eliminated.[15]

Abdominal US or CECT are the first choice of imaging for symptomatic lesions and are highly accurate for simple liver cysts.[16] Complications such as intracystic bleeding may give rise to diagnostic dilemma as they can mimic biliary cystadenomas/cystadenocarcinomas and should be evaluated carefully.[2] When the diagnosis has been established, wide therapeutic options ranging from no intervention[1] to surgical treatment[17] can be considered. Treatment for simple cysts should be considered only for progressive abdominal pain, or when complications have occurred. Aspiration of cyst fluid followed by sclerotherapy[18] is reasonable for small cysts and it may provide symptom relief in 80% of patients.[19] Simple aspiration is a viable option, but because of the high recurrence rate it is not the preferred method.[20] More definitive treatment options include cyst fenestration (laparoscopic or open) and hepatic resection, which is performed rarely (depending on the size and location of cyst), provide long-term relief in up to 90% of patients.[21-23] In a study, laparoscopic management of congenital hepatic cysts was considered the gold standard and laparoscopic cyst deroofing/fenestration has produced acceptable long-term results with a minimal morbidity when compared to open surgery.[24] In case of suspicion of hepatobiliary cystadenoma, surgical resection should be performed. Finally, the cyst wall should be subjected to histopathologic analysis to rule out malignancy. A formal hepatic resection is indicated if cystadenoma is diagnosed unexpectedly.

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