

Case Report

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Giant simple hepatic cyst mimicking as hydatid cyst: diagnostic dilemma

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ABSTRACT

Giant liver cysts are uncommon. Hepatic cysts are usually asymptomatic and are found incidentally but they can become symptomatic and cause bleeding, infection, mass effect to adjacent structures or rupture. We described two cases of symptomatic liver cysts described suspected clinically and radiologically reported as hydatid cyst but were revealed to be simple liver cysts following surgery. Two elderly men presented with an enlarging abdominal mass and abdominal pain for 1 week. Both patients on radiology had large cysts in the liver causing significant mass effect on adjacent structures and characteristics were suggestive of hydatid cyst. Diagnostic laparoscopy with drainage was done for both patients and revealed as simple hepatic cyst. Hence simple liver cyst can mimic as hydatid cyst attaining giant dimensions and should be considered as an important differential diagnosis.

Keywords: Hydatid cyst, Simple hepatic cyst, Laparoscopic deroofing

INTRODUCTION

Giant cysts of the liver are uncommon. Hepatic cysts are usually asymptomatic and are found incidentally but they can become symptomatic and cause bleeding, infection, mass effect to adjacent structures or rupture.¹ Simple liver cysts have unknown etiology and they are believed to be congenital in origin.² Treatment options for these cysts are percutaneous aspiration, injection with sclerosing agents, laparoscopic or open fenestration and surgical cystectomy. We described two such cases which were reported radiologically as hydatid cyst but following surgery was found to be simple liver cysts.

CASE REPORT

Case 1

A 72 year old man presented with one year history of abdominal pain and distension for one week, with no other significant history. Abdominal examination

revealed the umbilicus pushed down, soft, non-tender mass of size 20×25 cm was present in the right hypochondrial, epigastric and umbilical region. The mass had a smooth surface, firm in consistency, well defined margins and was moving with respiration.

Esophagogastroduodenoscopy then showed a tubular stomach with extrinsic compression of the lesser curvature, ballooned and dilated first and second part of duodenum with lax lower esophageal sphincter. CECT abdomen done revealed multiple hypodense cysts in both lobes of liver and a large cystic lesion in the right lobe of liver in segment VII and VIII with volume of 5 litres causing significant mass effect on pancreas, stomach, GB, duodenum and reported to be suggestive of multiple hydatid cyst (Figure 1). He was then taken up for diagnostic laparoscopic surgery which showed an exophytic giant simple hepatic cyst arising from the right lobe of liver with thick and vascular cyst wall. Laparoscopic de-roofing of the cyst and cyst wall

excision was followed and specimen was sent for histopathological examination.

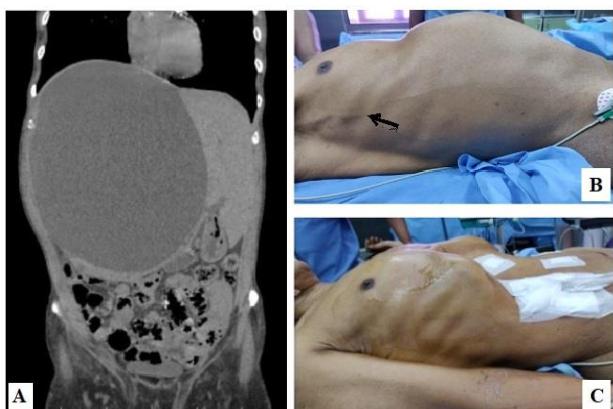


Figure 1: (A) CT abdomen with large hypodense cyst in the liver; (B) pre-operative clinical picture of distended abdomen with a large right hypochondrial mass compressing on IVC and causing dilated abdominal veins (shown with arrow); (C) post-operative clinical picture of the abdomen with abdominal veins collapsed after de-roofing of cyst.

Case 2

A 56 year old man came with complaints of abdominal distension for 3 months and abdominal pain for past 1 week. His abdomen findings were a soft, non-tender mass of size 8×8 cm involving the right hypochondrial and epigastric regions with smooth surface. The mass was firm in consistency, well defined margins and was moving with respiration.

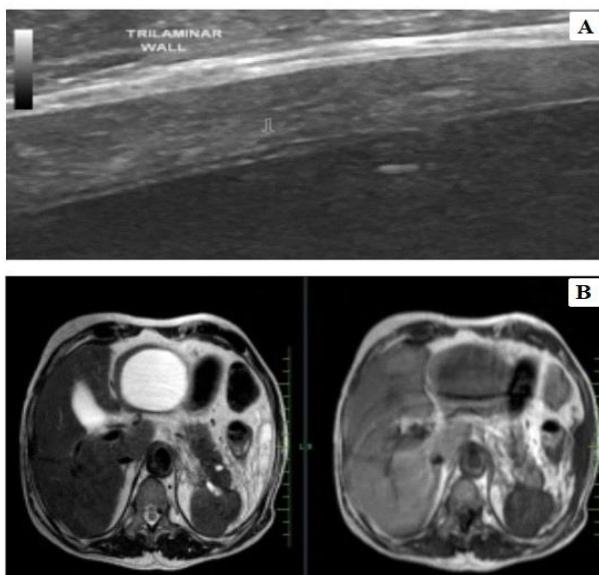


Figure 2: (A) USG abdomen of the liver cyst showing classical trilaminar wall suggestive of hydatid cyst; (B) MRI abdomen showing large liver cyst in left lobe.

MRI scan of the abdomen showed a large well encapsulated cystic lesion with fine internal echoes in the left lobe of liver with an exophytic projection, reported as hydatid cyst (Figure 2). Patient then underwent diagnostic laparoscopy with drainage of the cyst. Intra operatively multiple adhesions were seen between liver and parietal wall. Omentum was found to be adhered to the left lobe of liver. A ruptured cyst was identified along inferior border of liver, infracolic compartment was free. Adhesions were cleared, cyst fluid was aspirated and cyst wall excised was sent for biopsy.

For both the cases the histo-pathological examination revealed a simple liver cyst.

DISCUSSION

The incidence of hepatic cysts is not precisely known as most are asymptomatic but it is estimated to occur in about 5% of the population. Out of which 10-15% of patients present to a hospital with clinical signs and symptoms.³ It is found to be slightly more common in women with a ratio of 1.5:1 (female:male).

Simple hepatic cysts are thought to be congenital in origin which occurs due to an abnormality in chromosome 16. These arise as an aberration during the development of bile duct.² Simple hepatic cysts does not communicate with the intrahepatic bile ducts and they contain clear fluid. Their sizes vary ranging from a few millimeters to large cystic lesions occupying enormous volume of the upper abdomen, the largest reported cyst contained 17 litres of fluid.⁴

Large simple liver cysts present with abdominal mass, right upper quadrant pain due to stretching of hepatic capsule and compression of adjacent structures. This may lead to features of lower limb edema due to the inferior vena cava compression, compression of portal vein resulting in portal hypertension or jaundice due to bile duct compression.^{1,5} Management with simple percutaneous aspiration alone may not adequate in majority of cases as it is associated with increased risk of infection and recurrence.⁶ Hence percutaneous aspiration and injection of sclerosis was used initially but use of phenol has reported to have higher success rates.⁷ The main disadvantage with phenol is that it could irreversibly cause sclerosing cholangitis when there is a presence of undetected bile duct communication.⁸

When the size of the cyst is large it is preferred to be drained surgically so that infection can be prevented. Symptomatic cysts of liver, even of size 15-25 cm can be treated by laparoscopic management. Laparoscopic de-roofing is quiet effective with simple puncture. Laparotomy must be replaced by minimal access surgery like laparoscopy as it has reduced morbidity and fewer complications associated with an abdominal incision.

CONCLUSION

Simple hepatic cysts can mimic hydatid cyst attaining giant dimensions, thus it should be considered as an important differential diagnosis. Laparoscopic de-roofing is considered the ideal treatment for large symptomatic simple cysts. It's a safe procedure with low incidence of complications, which was the treatment given to our patients.

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