

# Images in Sonography: Detached Membrane Sign

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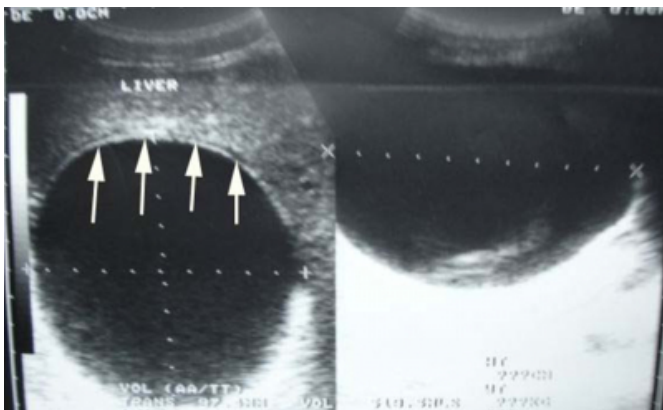
## Abstract

A case of hepatic hydatid cyst is presented in which one monthly follow up of ultrasound of a hydatid cyst revealed an undulating membranous structure with disappearance of the inner membrane as seen on first sonogram. A diagnosis of hydatid cyst was given and confirmed by surgery

## CASE REPORT

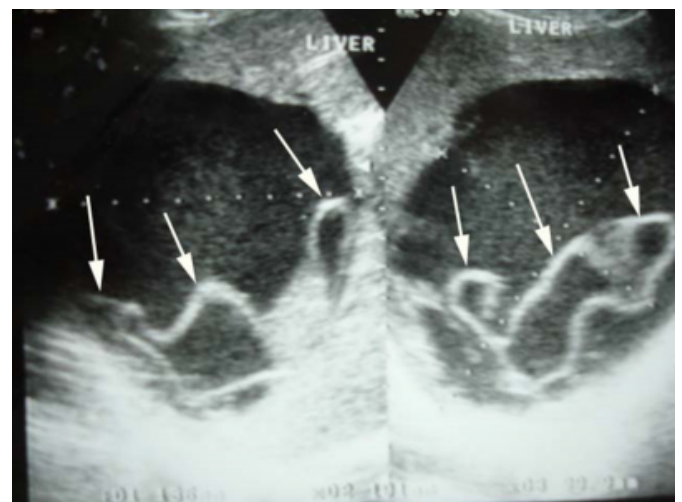
A 26 year old male patient presented with pain in right hypochondrium for 7 months. An ultrasound performed revealed a well defined cystic structure with an inner membrane (Figure 1-arrows).

### Figure 1



An impression of hydatid cyst was given. The patient was offered surgical treatment at this time to which he denied. A follow up ultrasound done one month latter revealed a wavy band of delaminated membrane within the cyst (Figure 2-arrows). The outer membrane seen on first scan had disappeared. The patient was referred for surgery. The resected cystic structure (Figure 3) was identified as a hydatid cyst on pathological examination.

### Figure 2



### Figure 3



## **DISCUSSION**

Hydatid disease is a worldwide zoonosis produced by the larval stage of the *Echinococcus* tapeworm. It consists of an outer membrane ectocyst, middle layer pericyst and an inner laminated membrane the endocyst. Detachment of the laminated membrane (endocyst) from the pericyst can be visualized as undulating membrane within the cyst. This sign was seen in our case. Detachment of the endocyst from the

pericyst is probably related to decreasing intracystic pressure, degeneration, host response, trauma, or response to therapy<sup>1</sup>. Endocyst detachment is seen at ultrasound as floating membranes within the cyst.

## **References**

1. Lewall DB, McCorkell SJ. Rupture of echinococcal cysts: diagnosis, classification, and clinical implications. *Am J Roentgenol* 1986; 146:391-394

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