

## Ultrasound imaging of intracystic hemorrhage of hepatic cyst and changes in serum carbohydrate antigen 19-9 over time.

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### Clinical Image

A 60-year-old woman presented with a 10-cm hepatic cyst that was anechoic on ultrasound and a serum carbohydrate antigen (CA) 19-9 concentration of 50.7 U/ml. Ultrasonography six months later revealed that the diameter of the cyst had increased to 12 cm, accompanied by a small papillary region arising from the cyst wall and intracystic echoes representing debris. The serum CA19-9 level had increased to 89.2 U/ml. At this time, abdominal contrast-enhanced computed tomography, esophagogastroduodenoscopy, and colonoscopy did not reveal any intracystic tumors. Intracystic hemorrhage was diagnosed based on cyst fluid cytology, but the patient had no abdominal pain or anemia. Ultrasonography at nine months showed growth of the papillary region and the serum CA19-9 level was 385.7 U/ml. Serum CA19-9 peaked at 1014.0 U/ml at 12 months, but

ultrasonography showed no remarkable changes. At 15 months, the serum CA19-9 level had decreased and ultrasonography showed a reduction of the cyst. By 18 months the cyst had shrunk further and the serum CA19-9 level remained within the normal range.

Several reports have indicated that intracystic hemorrhage of a hepatic cyst results in elevated serum CA19-9. However, the ultrasonographic findings of such cysts and serum CA19-9 values have never been simultaneously followed up over the long term. The findings from this patient showed that ultrasonographic findings dynamically change before serum CA19-9 peaks (Figure 1).

### Conflict of Interest

None to declare.

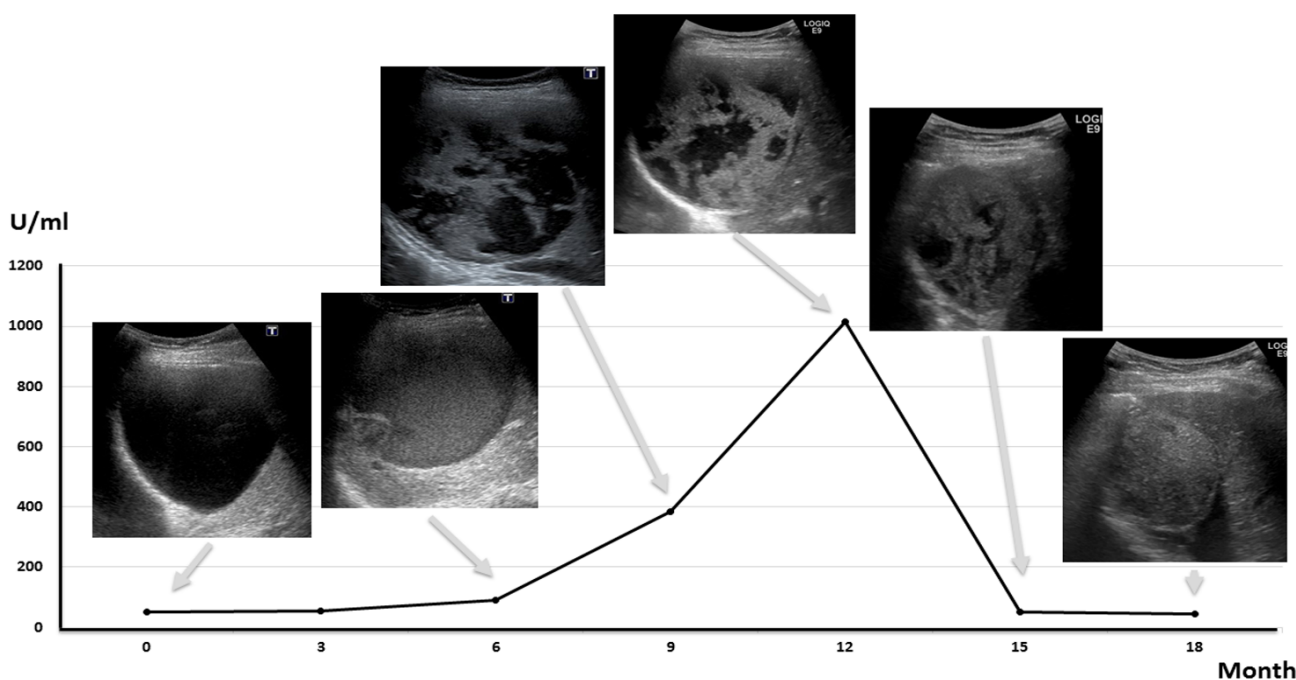


Figure 1. Ultrasonographic findings of the patient.