Photoclinic

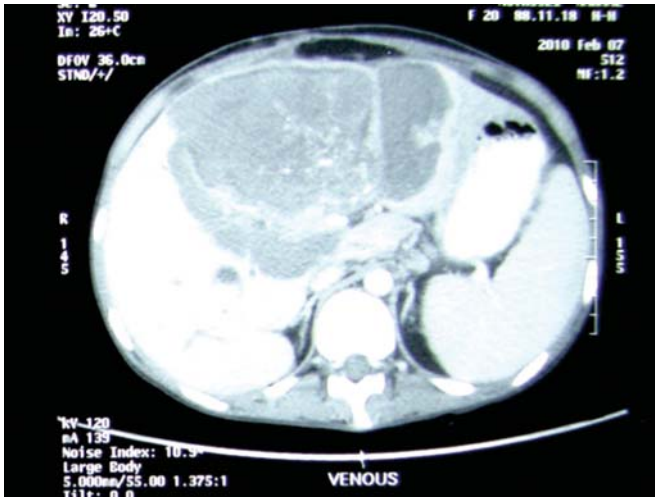

Figure 1. Abdominal CT scan.

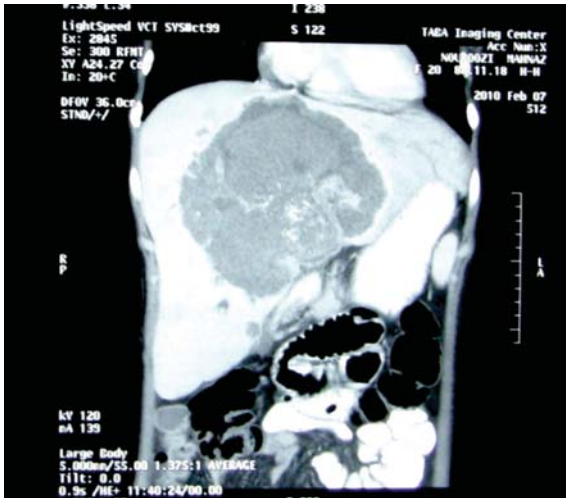

Figure 2. MRI of the abdomen.

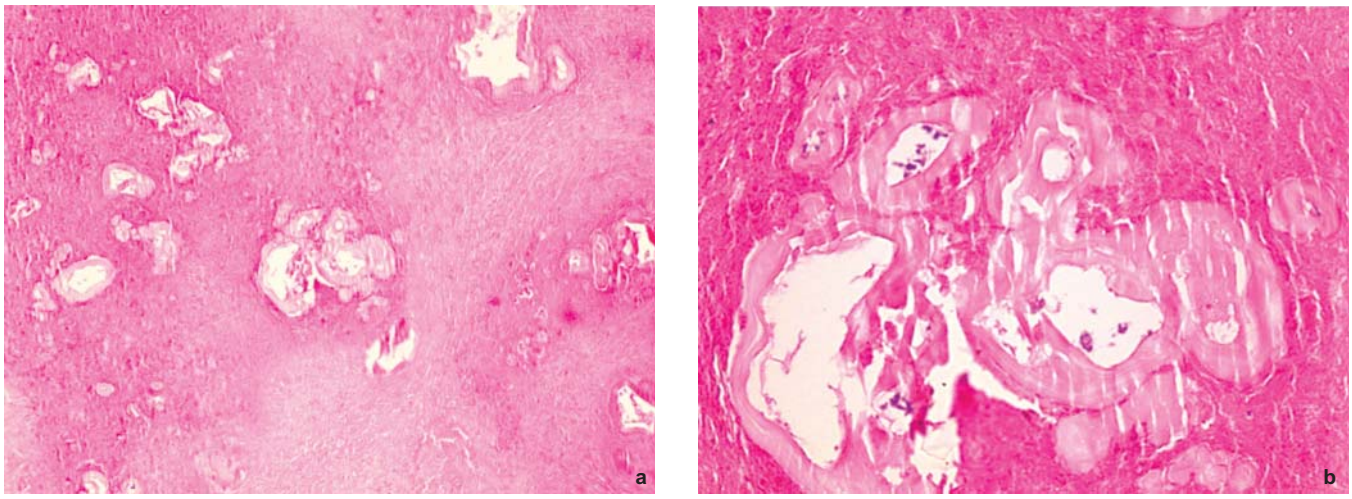

Figure 3. Histopathology of the liver biopsy: **a)** Low power shows several foci of larval membrane (H&E, ×100). **b)** High power of the same membrane (H&E, ×400).

A 21-year-old woman from Ardebil, West Azarbaijan Province, referred to our center at Shiraz University of Medical Sciences, with chief complaints of abdominal protrusion and jaundice for two years. Her past medical history was unremarkable and no significant finding was detected in her family history.

Upon physical examination she was icteric. Heart and lung examination were unremarkable. Abdominal examination showed mild right upper quadrant tenderness, with mild hepatomegaly. Vital signs were normal. Laboratory investigation showed leukocytosis, anemia, AST=220 IU/L, ALT=194 IU/L, alkaline phosphatase=3950 IU/L, and total bilirubin=20.7 mg/dL.

Abdominal CT and MRI were taken (Figures 1, 2). Fine needle aspiration of liver was performed which was unsatisfactory. Trucut biopsy of liver was also unsatisfactory with extensive necrosis and without a diagnosis. The patient underwent a laparotomy which showed a large mass at the hilar region which adhered to the surrounding tissue thus a resection was not performed; rather only several biopsies were taken.

What is your diagnosis?
See the next page for diagnosis.

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Photoclinic Diagnosis: **Alveolar Hydatid Cyst of the Liver**

Microscopic examination of the liver biopsy showed extensive necrosis with larval membrane (Figure 3a and 3b). The diagnosis of alveolar hydatid disease caused by *Echinococcus multilocularis* was made. After surgery, albendazole was administered and laboratory indices showed significant improvement (ALT=35 IU/L, AST=78 IU/L, alkaline phosphatase=35 IU/L and bilirubin= 8.6 mg/dL). She was scheduled for liver transplantation.

Echinococcus multilocularis has been mostly reported from Central Europe, Turkey, Japan, and Northern Iran.[1–4] The liver is the most common site of involvement but it can also affect any organ or tissue in the body.[5]

In the liver huge masses can be produced which mimic malignancy.[6] Primary diagnosis should be achieved by using imaging techniques. Laboratory diagnosis including serology is important for confirmation or screening in endemic areas, but final diagnosis is based on histopathologic findings.[7]

The treatment of choice is surgical resection of the larval mass combined with administration of albendazole for several years.[8] Unfortunately surgical resection is applicable in a minority of patients and mortality remains high.[7] There are rare reports of successful liver transplantation in huge unresectable cases.[9]

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