Abstract
Hydatid disease (HD) is an infestation that is caused by the larval stage of Echinococcus granulosus. The liver is affected in approximately two-thirds of patients, the lungs in 25%, and other organs in a small proportion. Primary retroperitoneal hydatid cyst is extremely rare. The most common complaint is abdominal pain; however, the clinical features of HD may be generally dependent on the location of the cyst. Herein we report a new case of primary retroperitoneal hydatid cyst diagnosed with abdominal pain and palpable large mobile mass on the right side of abdomen.

Keywords: Retro peritoneum-hydatid cyst.

INTRODUCTION
Primary retroperitoneal hydatid cysts are very rare, even though liver hydatid cysts are frequent [1]. Like most retroperitoneal masses, they cause symptoms when growing large enough to exert pressure or obstructive effect on adjacent organs [2]. Because of the limited number of reported cases, the biological behavior and histogenesis of such tumors remain speculative [3]. Laboratory studies and imaging methods can usually achieve an accurate preoperative diagnosis [1]. We describe here a case of retroperitoneal hydatid cyst presenting with a palpable abdominal mass and a literature review is also given together with discussion.

CASE REPORT
A 46-year-old woman presented at our institution with abdominal pain for 3 weeks and the abdominal pain was described as intermittently cramping. Physical examination showed a palpable large mobile mass on the right side of her abdomen. The patient denied any systemic disease or history of drug abuse. Pelvic examination showed no remarkable findings except for an indurated mass palpable over her left flank region. The laboratory data were within reference ranges. Tumor markers, including CA199, CA125 and CEA were normal. The abdominal X ray film demonstrated a large hazy mass located over the right aspect of the abdomen displacing the left-side colon medially. Contrast-enhanced computed tomography (CT) of the abdomen showed a well-defined homogenous hypodense mass, which measured 8 cm × 4.5 cm in size, occupying the right retroperitoneal space (Fig. 1a,b). Because a retroperitoneal cystic mass was considered, the patient underwent surgical excision of the tumor. At laparotomy, the mass was located behind the right colon. The white line of Toldt was divided to expose the cystic mass. A huge retroperitoneal cystic mass was resected, measuring 11 cm × 6 cm × 3 cm in size and 300 mg in weight.

The uterus and both ovaries were normal. There was no spread of the tumor in the abdominal cavity. Histopathological assessment of the resected mass disclosed a picture of hydatid cyst. A diagnosis of primary retroperitoneal hydatid cyst was made. The postoperative course was uneventful and she remained asymptomatic with ensuing three years of follow-up.

DISCUSSION
Hydatid disease (HD) is an infestation that is caused by the larval stage of Echinococcus granulosus. The liver is affected in approximately two-thirds of patients, the lungs in 25%, and other organs in a small proportion. The most common complaint is abdominal pain; however, the clinical features of HD may be generally dependent on the location of the cyst.
Human hydatid disease is endemic in Central India and it presents a major health problem in sheep and cattle rearing countries. Hydatid disease involving the retro-peritoneum is rare and an isolated retroperitoneal hydatid cyst is extremely rare.

Retroperitoneal location hydatid cyst is very rare and the first case of this type to be studied by CT scan was reported in 1987 [1]. It is defined as a zone of hydatidosis occurring in the fatty tissue in the space lying behind the posterior parietal peritoneum without any parasitic foci in other organs [2]. It usually presents as an abdominal mass and less frequently with concomitant compression syndromes. It can also rupture into great vessels like the aorta forming false aneurysms [3]. In one case it had presented as a retrocaval ureter [4]. Diagnosis is based on Immunodiagnostic tests and radiological features with a percutaneous puncture. In an endemic region of hydatid disease a diagnosis of hydatid cyst of the retroperitoneum must be entertained on coming across a multiseptated cystic retroperitoneal mass. Immunological tests and percutaneous aspiration can be used to confirm the diagnosis. Retroperitoneal lymphangioma are congenital malformations of the lymphatic system and are seen as unilocular or multilocular cysts with thick septations, 44% contain some debris. Treatment is surgery; azoles are useful for intra-operative ruptured cyst and to reduced the risk of recurrence.

CT confirms the diagnosis by revealing the presence of daughter cyst and plaque-like calcifications in the cystic wall and is also superior to USG in detecting the extrahepatic cysts [2]. The sensitivity of CT ranges from 90% to 97% [2]. The management of extrahepatic HD is based on considerations regarding the size, location, and manifestations of the cysts and the overall health status of the patient. Asymptomatic small cysts can be treated with antihelminthic drugs with a usage of 28 days in one to eight repeating cycles, separated with 2-3 weeks of drug-free intervals [2,3]. In symptomatic and large hydatid peritoneal cysts, surgical resection is the only curative treatment [4]. Surgical treatment can be either radical or conservative. Total cystectomy is the gold standard [2,3]. For peritoneal cysts which were attached to the intraperitoneal viscera, unroofing and drainage are recommended [2-4]. The most important thing is to isolate the abdominal cavity with gauzes soaked in 20% hypertonic saline solution for preventing the secondary hydatidosis and allergic reaction [2].

CONCLUSIONS

The possibility of HD in a patient presenting with a retroperitoneal cystic mass should be suspected especially in endemic areas such as sheep-raising Mediterranean Countries and the definitive diagnosis may require surgical removal of the cyst and histopathological examination of the resected specimen. Total cystectomy is the gold standard. When the complete resection is not feasible, unroofing and drainage followed by adjuvant antihelminthic therapy must be performed to prevent secondary recurrence of the cyst.