

Abdominal Wall Hydatid Cyst: A Review of Literature with a Case Report

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Abstract

Case Report

Hydatid cyst (HC) disease is a serious health problem in endemic areas. It is a parasitic infection that commonly involves liver and lungs while muscular HC is rare. HC of abdominal wall was reported only six times. We reported a 75-year-old woman presented with HC of the right side. Ultrasound and CECT abdomen showed a subcutaneous cyst. HC should be put in the differential diagnosis of the abdominal wall masses. Its pre-operative diagnosis is important to prevent rupture with subsequent anaphylaxis and recurrence. Surgery is the main modality of treatment.

Keywords: Hydatid cyst- Mass- Abdominal wall- Ultrasound-CECT.

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1. INTRODUCTION

HC disease is a serious health problem in endemic areas [1]. It is a parasitic infection that commonly involves liver and lungs [2].

Hydatid cyst caused by the larval stage of a parasite, *Echinococcus granulosus* [1]. Dog is the primary host while the intermediate hosts are sheep, horse, cattle and occasionally human being [3].

Although liver and lungs are the most involved organs, hydatid cyst can occur in all viscera and soft tissues with variable degree of signs and symptoms [1, 4]. Primary skeletal muscle hydatid disease without liver and lung involvement is rare even in endemic areas. Muscular hydatidosis has been documented in literature but involvement of abdominal wall is a rare condition with around six cases reported up to date [2]. In line with SCARE guide line, we reported a case of abdominal wall HC [5].

2. CASE REPORT

A 75-year-old woman, housewife, presented with right side, slow growing, abdominal mass with history of hydatid cyst of the liver, heart disease and

cholecystectomy 9 years ago. No family history was reported.

On examination, there was (8 cm × 5 cm) smooth surface, firm, not tender mass on the right hypochondrium region, normal overlying skin, fixed to the underlying muscles. No other intraabdominal cystic lesions were found. Ultrasound showed a cystic lesion subcutaneous above aponeurotic with anechoic content (Fig 1).



Fig 1: Ultrasound showed a cystic lesion subcutaneous above aponeurotic with anechoic content

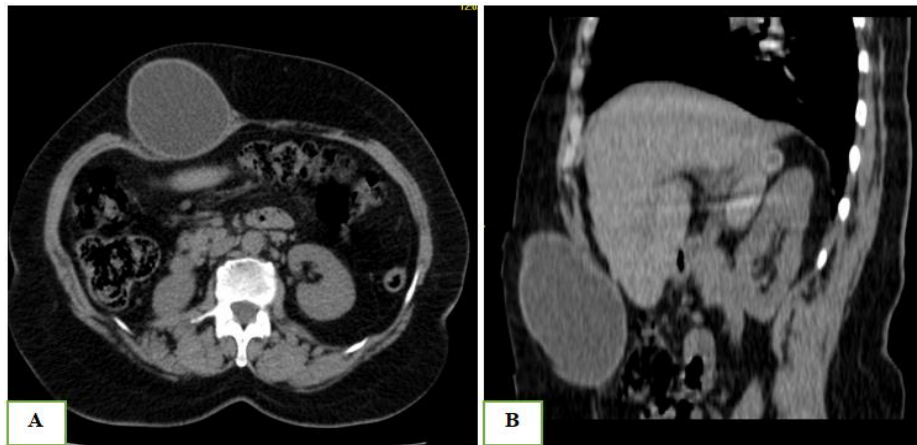


Fig 2: Axial (A) and Sagittal (B) sections showing mass in the anterior abdominal wall

3. DISCUSSION

Hydatidosis is a zoonotic infection caused by tapeworms belonging to the class Cestoda, in the family Taeniidae, of the genus *Echinococcus*. The *Echinococcus granulosus* species, which is responsible for cystic hydatidosis, has an almost ubiquitous diffusion. South America, Central Asia, and the Mediterranean basin [6] must be considered highly endemic areas. The adult worm (3 to 6 mm long) lives in the small intestine of the definitive hosts, that is, dogs or other canids. Primary skeletal muscle infection with *E. granulosus* accounts for 1%–4% of reported hydatid cases [7]. It may be postulated that the low prevalence of this form of disease is potentially due to the physical barriers to the hematogenous dissemination of cysts created by hepatic sinusoids and pulmonary capillaries. In addition, it has been postulated that the higher lactic acid concentration in skeletal muscle and mechanical factors, such as contractile activity, may make encystment less likely. Solitary abdominal parietal wall hydatid is a rare finding with only 5 cases reported it is interesting that all five cases reported have hydatid cyst presenting in right iliac region or right paraumbilical region [8].

The clinical course is nonspecific and depends on the site of involvement, the size of the cyst, and the pressure caused by the enlarged cyst. Usually, it presents as an inert, painless, non-inflammatory mass without any deterioration of the patient's general condition. However, if super infected or cracked, the cyst can simulate an abscess or a cancer [9].

MRI is the examination of choice in case of suspicion of hydatid disease due to its ability to demonstrate adequately most features of hydatid disease, with the exception of calcifications [10]. The multiplanar imaging and the excellent soft tissue contrast provide valuable information on the extent of the disease. The classic MRI findings include a multivesicular cyst, a low-intensity rim “rim sign” on T2-weighted images or a detached membrane [10]. The most pathognomonic sign is that of daughter cysts

within larger cysts. According to Diez *et al.*, the presence of viable daughter cysts MRI conveyed as high signal intensity or low signal intensity on T2-weighted images [11].

Serology may not always be helpful in diagnosing primary muscle hydatidosis. A negative test does not rule out the diagnosis of echinococcosis. False positivity of Casoni skin test was reported in infestations of *tenia saginata* and other helminths because of cross reactions [12].

Management of muscular HC disease is total excision of the cyst with surrounding tissues [2]. Conservative management of HC is much debatable. There are authors reported that albendazole when used alone for about 6–8 weeks, cured HC in about 50% of cases [3, 13].

4. CONCLUSION

HC could occur anywhere in the body and it should be put in the differential diagnosis of abdominal wall masses. Its pre-operative diagnosis is important to prevent rupture with subsequent anaphylaxis and recurrence. Surgery is the main modality of treatment.

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