Rare Presentation of Thigh Hydatid Cyst (Case Report)

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Abstract

Musculoskeletal hydatid cyst is very rare and represents less than 0.5% of all cases of hydatid cyst. On clinical basis, infection mimics a soft-tissue tumor, and the preoperative radiological diagnosis is very important to avoid biopsy.

A 35-year old male patient presented with a history of soft tissue mass and pain at the medial aspect of the left mid thigh for the last 6 months. On physical examination, a mass which was 13× 6 cm in diameter, was palpated over the medial aspect. Ultrasound scan demonstrated loculated soft tissue mass with central cystic component in the muscular compartnent of the thigh.

Histopathological examination revealed scolices, a cyst wall and a ‘germinal' layer confirm which the diagnosis of hydatid disease. patient then put on medical treatment for one month . This case illustrates that echinococcal disease should be considered in the differential diagnosis of every cystic mass in every anatomic location, especially when they occur in areas where the disease is endemic.

Keywords: Cyst Hydatid, muscloskeletal hydatidosis.

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Introduction

Human hydatid disease caused by Echinococcus granulosus has been recognized as a public health problem of global dimensions [1]. It is found in all sheep-raising countries of the world, especially central Europe, Middle east ,Australia, New Zealand, Turkey, etc. . The parasite has a “dog-sheep” cycle with man as an intermediate accidental host. Human infection occurs by ingestion of the Echinococcus eggs inadvertently with food, especially unwashed vegetables and water contaminated with faeces from infected dogs.

In humans, the most favoured site for infestation is the liver (65%) or the lungs (25%); it rarely involves the brain, heart, bone, or other organs [2] .The primary muscular hydatid cysts comprise less than 0.5% of the cases in endemic populations [3].

Case Report

A 35-year-old male, non-vegetarian man was presented to the surgical clinic of Baquba Teaching hospital with a slow-growing, painful lump in the medial aspect of the mid third of the left thigh, for the last 6 months. On physical examination, there was a soft, non-tender, fluctuated mass (vertical shape take the shape of muscles arrangement) with relaxed underlying musculature, of 13cm x6 cm in size at the (antero-medial aspect of the left thigh).

The clinical findings were negative .The lab tests were also normal. The CBC was found to be normal; fluid aspirated yielded

clear fluid and was inconclusive. Plain x –ray showed only soft-tissue swelling with no bone involvement. Ultrasound showed a well-defined loculated intramuscular cystic lesion. Exploration of the area was done , large mass with a pearly white wall was attached to deep fascia and was evacuated.

The empty cavity was thoroughly irrigated with 3% hypertonic saline solution for 5 minutes Gross examination of the cystic cavity demonstrated clear fluid with multiple daughter cysts.

Histopathological examination revealed scolices, a cyst wall and a ‘germinal' layer which confirm the diagnosis of hydatid disease. patient was put on medical treatment for one month.

Discussion

The hydatid disease parasites are members of the tape worms (cestodes). The majority of the infestations are caused by Echinococcus granulosus and multilocularis [4]. The parasite may affect any organ; however, muscle is supposed to be an unfavorable site for infestation because of its high lactic acid concentration [5].

Intramuscular hydatid cysts grow gradually and may mimic a soft tissue tumor [6]; thus, the diagnosis of soft-tissue hydatid cysts needs a high index of suspicion.

Ultarsonography of the abdomen still remains the major noninvasive screening tool to discover the primary site of the disease and may confirm the diagnosis of hydatid disease by demonstrating the pathognomonic daughter cysts [7]. The CT appearance of the hydatid cyst is not diagnostic as it may mimic malignant and benign conditions such as congenital cyst, pseudocyst or hematomas [8,9]. However, the presence of daughter cysts, germinal epithelium detachment and calcification may confirm the diagnosis. Similarly, MRI can reveal a cystic mass containing daughter cysts, with rim sign and “water lilly sign [10].

A variety of serological tests like indirect haem-agglutination test (IHA), latex agglutination and enzyme-linked immunosorbent assay (ELISA) are used to establish the diagnosis and postoperative follow-up of the disease with a specificity of 97 %, with IgG-ELISA being the most sensitive with a sensitivity of 83.5%.

Similarly, eosinophilia is detected only in 50% of the patients; however, the best way to establish the diagnosis is the direct visualization of parasitic elements in the surgically resected pathological specimen[11].

The conventional treatment of muscular hydatid cysts is surgical; however, it may require an extensive surgical resection, and a need of general anaesthesia is inevitable. Preoperative medical treatment may sterilize the cyst cavity and might decrease the intraoperative complication of spillage and consequential anaphylaxis. Intraoperative irrigation of 0.5% cetrimide, 15% hypertonic saline and 0.5% silver nitrate solution, previous to cyst opening may kill the daughter cysts and further reduces the risk of dissemination and anaphylactic reaction. Recently, percutaneous treatment of muscular hydatid disease has been carried out with great success[11].

Even though mortality directly due to echinococcosis is very low, it can produce a very disabling morbidity. A mortality rate between 0.29 and 0.6% has been reported.[12] The recurrence rate of this disease is still relatively high accounting for about 10%(12).

Conclusion

Hydatid disease can affect any organ in the body; the infestation may mimic a soft tissue tumor and therefore, a high suspicion

of this disease is justified in any cystic neoplasm of any organ.

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