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Case Report

Sciatica Reveling Thigh Hydatidosis

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ABSTRACT

Primary hydatid disease of musculoskletal system represents 1–4 % of all locations, and can take on the appearance of a soft tissue tumor. We present here a case of 62 year old man who developped a soft swelling of Posterior aspect of the thigh with distal sciatica of the left lower limb. Ultrasonography reinforced by MRI suspected an hydatid cysts diagnosis. Serologic test (ELISA) was positive. Patient underwent total surgical removal of all cystic formations, with adjunctive postoperative Mebendazole chemotherapy (15 mg/kg/day) for three months. At 03 years follow-up, patient was free of pain and had total functional recovery without local recurrence of the disease.

INTRODUCTION

Echinococcosis is a cosmopolitan disease affecting both men and many animals, due to development of Echinococcus granulosus cestode (1; 2). Its frequency remains high especially in areas of breeding countries where the disease is endemic. Muscle involvment represents only 1-4% of hydatidosis (3), and differential diagnosis should be considered for every soft tissue cystic mass in any anatomical location.

OBSERVATION

A patient of 62-year-old without medical history, was referred to us because of a painful posterior left thigh swelling associated with sciatica pain and limping lasting for 18 months, with paresthesias of common fibular and tibial nerves areas. Multiple firm mobile masses along the posteromedial lodge of the left thigh were found on clinical examination, with hypoaesthesia in both external popliteal and posterior tibialis nerves, and aweakness of dorsal foot flexion.

Ultrsonography revealed well limited deep hypoechogenic cystic formation in the left buttock measuring 70x65x3mm, and at the level of the posterior face of the thigh, presence of 3 cystic formations arranged in a string measuring respectively 72x49mm, 96x41mm and 74x34mm, evoking multiple hydatid cysts of the thigh (Figure 1).

MRI was advised to reinforce the diagnosis and to clear identification and surgical planning of involved structures. Three trilobed-looking formations were identified on the posterior aspect of the thigh (Figure 1A black arrow), with uni and multivesicular content and regular walls enhanced after contrast product injection, measuring 53 mm x 21 cm (Figure 2A wight arrow). Another endopelvic (43 x 82mm), and exopelvic (77 x 38 mm) formations were identified at the root of the thigh (Figure 2B white arrow).

The patient was diagnosed having primary hydatid disease of musculoskeletal system as other radiologic investigations did not revealed any hydatid cyst in lung, liver, brain, or spleen.

Biological diagnosis of hydatid involvement was strongly suspected on the base of serological examinations (Western Bloot and ELISA).

Since Diagnosis should be made postoperatively by cytological study of operatoire specimen, and as biopsy or Fin needle aspiration leads to leakage of cyst contents with high risk of anaphylaxis and secondary hydatidosis, Our Patient was first given Mebendazole preoperatively before

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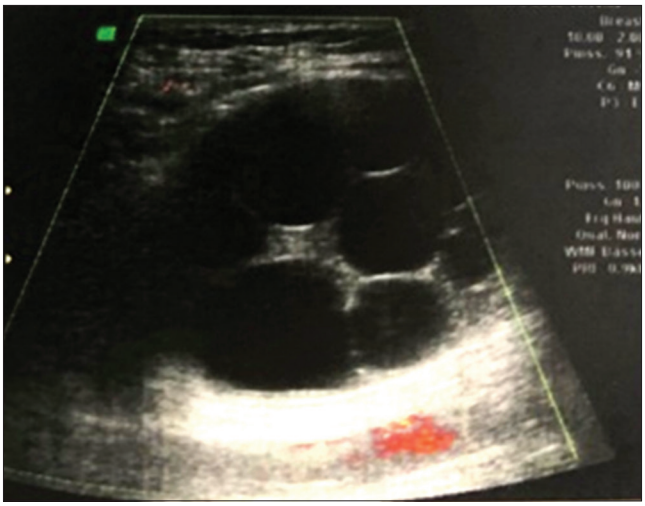

Figure 1. Well limited deep hypoechogenic cystic formation on ultrsonography

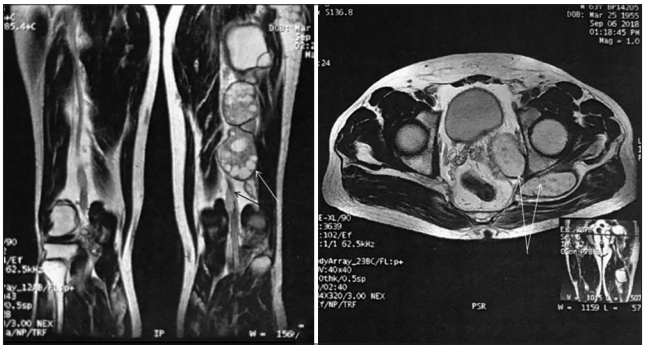

Figure 2. MRI multiple hydatid cyst on coronal and axial views

he underwent exploratory surgery with careful dissection of the nerve and complete surgical removal of all cystic formations, the surgical field were then washed with hypertonic saline solution (Figure 3 A-b).

Diagnosis was made postoperatively on cytological study with presence of particulate material containing scolices with dispersed retractile hooklets (PAS and acid fast positive), and bits of the laminated membrane with parallel striations (Figure 4).

Medical treatment using Mebendazol was performed for 03 postoperative months. No pain and no recurrence were observed after 03 years of clinical and radiological monitoring, functional recovery was completely achieved.

DISCUSSION

Primary muscular hydatidosis is a rare even in endemic areas and and its epidemiological

features have not been well documented (4; 5). This could be explained by the necessity for the parasite to cross pulmonary and hepatic barriers to reach the muscles wich has otherwise an unfavourable high lactic acid level for its survival (6; 7).

The first muscle cases involvement described in the literature concern the muscles of the chest wall, the pectoralis major, the sartorius, the quadriceps and the gluteus (8-13).

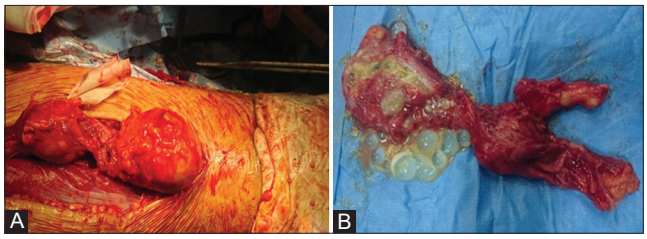

Figure 3. (A-B) Operatory view and and specimen of excised hydatid cyst of thigh

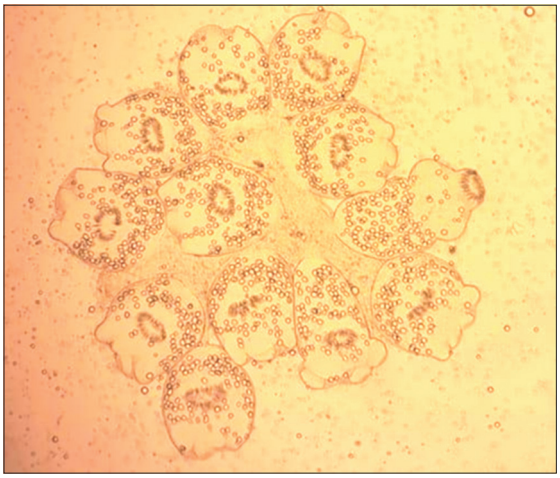

Figure 4. Presence of scolices with hooklets

So far, neurological deficit has been described on vertebral column and intrapelvic localization in cases of spinal cord and sciatic nerve compressing (14; 15). Serologic tests and ultrasonography should be performed before any invasive procedure. ELISA remains less sensitive for other organ involvement than liver or lung, and is about 25–26% (16). Ultrasound should be the first diagnostic tool used for detection of hydatid disease of soft tissue (17). Its sensitivity is 95% and increases to 100% if vesicular fibrils are present (3).

MRI is the test of choice for the diagnosis of muscular hydatidosis; it allows a careful analysis of the cysts, and a cartographic study of the locoregional extension of the lesion as well as its relationship with the vasculo-nervous pedicles (5; 18; 19).

Biopsy sampling leads to a high risk of anaphylaxis and contamination of neighboring tissues. The whole mass and all cysts must be removed (13) combined with washing with a scolicidal agent, and use of fields soaked in hypertonic saline, in order to avoid local dissemination (12; 20; 21). However, one-piece resection is not always easy to perform, especially in the absence of cleavage planes, when the cyst is infected and the adhesions to the vasculo-nervous elements are tight (22).

Due to their poor diffusion in the cystic fluid (21), medical treatment with imidazole derivatives (albendazole) in solitary locations of the musculoskeletal system remains debated, and especially reserved for inoperable cases or in addition to surgery when the cyst is complicated to rupture (12; 23). Long-term clinical, radiological and biological monitoring (every 3 months, for 2 years) is necessary in order to detect local or distant recurrence (24).

CONCLUSION

The diagnostic of echinococcosis should be kept in mind against any slowly growing soft tissue mass in a patient living in endemic area. Primary Muscular localisation and neurological complications are rare entities, and imaging and serology guide the diagnosis. Excision is the treatment of choice, but prevention remains the best way to fight hydatid disease, regardless of its location.

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