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RESEARCH ARTICLE

PRIMITIVE HYDATIDIC CYST OF THE THIGH IN A YOUNG WOMEN: CASE REPORT AND LITERATURE REVIEW

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Abstract

Muscular hydatidosis is a rare condition that accounts for less than 1% of all hydatid cysts cases, its asymptomatic character and its slow evolution are the main cause behind delayed diagnosis. The use of imaging modalities such as MRI contributes significantly to the diagnosis. The Treatment is based on the surgical excision of the cyst. We report a rare case of 30-year-old women with a primitive hydatid cyst of the thigh revealed by progressive swelling.

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Introduction:-

Hydatid disease is a common parasitic infection in endemic areas including North Africa, the Middle East, and South America, where it's considered a public health problem. It's a zoonotic disease caused by tapeworms of the genus *Echinococcus*, transmitted accidentally to human by ingesting the parasite eggs [1].

Muscular localization is uncommon, its incidence is less than 0.5% of all cases. This can be explained by the presence of lactic acid in muscle tissue and oxygen deficiency preventing implantation and scolex development [2,3].

The silent evolution of the disease and the asymptomatic character lead to delayed diagnosis, discovery can be made accidentally or after complications [4].

We report the case of a primary hydatid cyst in 30-year-old women revealed by swelling of the medial compartment of the thigh.

Case presentation:

A 30 year-old housewife, without known pathological history, with notion of contact with dogs since childhood, presents for a mass of the internal face of the right thigh gradually increasing in volume for the past 6 months. Clinical examination found a patient in good general condition, afebrile, with a voluminous mass in the proximal part of medial compartment of the right thigh, measuring 13*6 cm, painless, without local inflammatory signs, fixed to the deep plane with homolateral subcentimetric inguinal lymphadenopathies without signs of vascular or nervous compression (fig.1). The abdominal and respiratory examination were normal.

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Fig 1:- Mass on the medial side of the thigh.

The standard radiography had shown a thickening of the surrounding soft tissues, without bone involvement or calcifications (fig. 2). The ultrasound showed multiple fluid-containing cysts with well-defined and individualized capsule. The MRI had identified cystic formations in the adductor magnus muscle and semitendinosus muscle in low signal on T1 weighted sequence and high signal in T2 weighted sequence without endocystic partition or vegetation (fig.3). The hydatid serology was positive. The blood test and the investigation for other locations (abdominal ultrasound; chest x-ray) were normal.



Fig 2:- X-Ray: Thickening of the soft tissue at the medial compartment of the thigh.

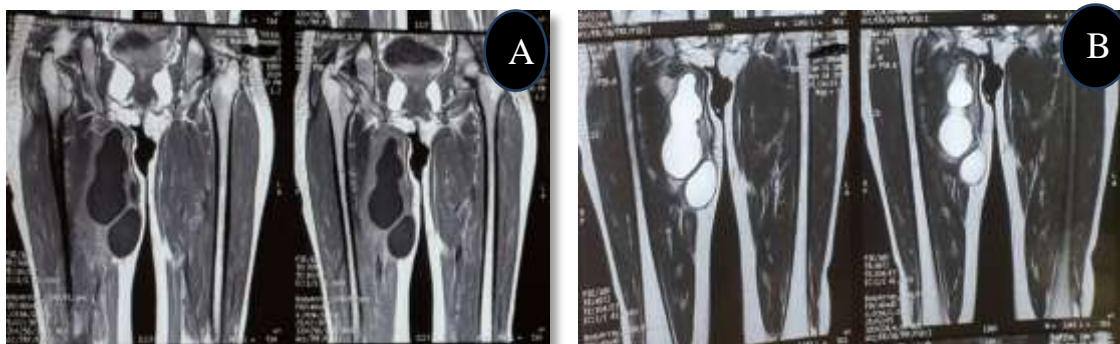


Fig 3:- MRI: intramuscular hydatid cyst with hypointense (A) in T1-weighted sequence and hyperintense in T2 weighted sequence (B).

A careful surgical excision was performed (fig. 4,5) without any perioperative incidents, and the postoperative follow-up was without complications. The anatomic pathology examination of specimen confirmed the diagnosis of hydatid cyst. After a 12-month follow-up no sign of local or visceral recurrence has been detected.



Fig 4:- Intraoperative view of precystectomy.



Fig 5:- Macroscopic appearance of cysts after excision.

Discussion:-

Echinococcosis is a cosmopolitan antroponosis common to humans and many mammals owing to the development of the larval or hydatid form of a dog tapeworm called *ECHINOCOCCUS GRANULOSUS* [5,6].

The muscle constitutes an environment unfavorable for the development of the larva. Hexacanth embryos arriving in the digestive tract are most often stopped by the liver and lungs acting as physiological filters. A very small number of embryos arrive in the large circulation where they spread throughout the body [7]. Several muscle locations have been described, with the predominant involvement of the neck, trunk, and limbs, particularly those of the lower limb (quadriceps; sartorius and gluteus) [8].

Clinically, the symptomatology of muscular hydatidosis is not specific. It is usually a soft tissue tumor, with very slow evolution making the diagnosis challenging. Symptoms are more manifest on occasion of complications (bacterial infection or rupture) [6,8].

The role of MRI is indisputable in the exploration of hydatid disease, it aids in the proper analysis of the mass (characteristics, dimensions, reports ...), MRI also helps to eliminate possible differential diagnoses and support a precise assessment of lesions before surgery [9,10].

Hydatid serology allows to retain diagnosis when it's positive, however, false negative results shows up in 80% of confirmed cases. Hyperosinophilia is usually absent except when a rupture occurs[7].

total pericystectomy remains the treatment of choice in the management of muscular hydatidosis, the surgeon must be careful to avoid intraoperative rupture of the cyst. The use of surgical gauze swabs immersed in scolicidal agent or hypertonic solution helps to prevent the spread of the parasite and reduce the risk of soiling, contamination and disease recurrence [4,11].

The use of albendazole has not been shown to be effective in cases of hydatid muscular cyst, despite this, it keeps an indication in inoperable patients or in recurrence cases. [12]

Conclusion:-

Muscular localization in hydatid disease is exceptional even in endemic countries, with insidious and non-evocative symptoms at the origin of frequently delayed diagnosis. The diagnosis relies essentially on MRI, while biology provides additional elements. The best treatment remains prevention and early diagnosis.

Conflicts of interest:

The authors declare that they have no conflicts of interest in relation to this article.

Author contributions:

All the authors contributed to the conduct of this work. All authors also declare having read and approved the final version of the manuscript.

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