

# Hydatid cyst of the thigh: a challenging diagnosis

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## DESCRIPTION

Hydatid disease is a common infection in Mediterranean countries. It is caused by a parasite '*Echinococcus granulosus*', which may affect several organs. Liver and lungs are frequent locations. Primary hydatid cyst located in the musculoskeletal system is uncommon.<sup>1</sup>

These images illustrate the case of a 27-year-old man without past medical history who presented with a swelling of the right thigh that appeared 6 months ago. Physical examination showed a tender mass of the upper third of the right thigh. There was no history of trauma or fever. Inflammatory blood markers were normal. Ultrasonography was first performed revealing a huge multilocular intramuscular cystic mass of the thigh without tissue components or calcifications. The aspect was suspicious of a cystic lymphangioma. An MRI of the thigh was performed to evaluate accurately the size of the mass and its location. It revealed a voluminous mass of 10×6 cm developed in the medial compartment of the upper thigh. This mass was hypointense on T1-weighted sequences and hyperintense on T2-weighted images with peripheral enhancement after contrast material injection (figures 1 and 2). The presence of small cysts inside the mass was highly suspicious of hydatid cyst. Chest X-ray and abdominal ultrasound did not reveal visceral location. Serological test ELISA was negative. Surgical excision of the mass confirmed the diagnosis of hydatid cyst. It showed daughter cysts in the cut section (figure 3). Histopathological examination confirmed the diagnosis.



**Figure 2** Sagittal T1-weighted image after contrast material injection showing a cystic mass of the thigh with peripheral enhanced rim.



**Figure 3** Macroscopic view of the tumour showing a cystic content.



**Figure 1** Coronal T2-weighted image showing a cystic mass of the thigh with vesicular content.



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## Learning points

- ▶ Primary hydatid cyst located in the musculoskeletal system is uncommon with innocuous clinical presentation.
- ▶ The diagnosis is suspected in case of cystic mass with vesicular fibrils.
- ▶ An MRI is advised to assess the exact location of the cyst and to identify the involved muscles. It also helps eliminating differential diagnosis such as haematoma, cystic lymphangioma or tumour. It typically shows a cystic vesicular mass with peripheral hypointense rim.
- ▶ Total excision of the mass is recommended as a curative treatment.

Total excision of the mass is recommended as a curative treatment. The rupture of the cyst should be avoided because of high risk of anaphylactic reaction due to leakage of daughter cysts.<sup>2</sup> In case of incomplete excision of the cyst, additional chemotherapy is needed.<sup>3</sup>

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