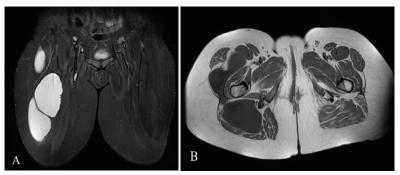
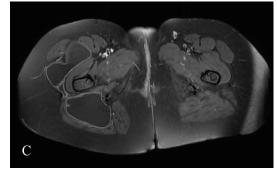


#### **Clinical-Medical Image**

# Rare Origin of a Soft Tissue Cystic Mass of the Thigh: Muscular Hydatidosis

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**Figure 1:** Coronal T2-weighted and (b) axial T1-weighted magnetic resonance images show a well-defined multiloculated cyst on the right gluteal maximus extending inter-muscularly to the anterior and medial compartment of the thigh.

**Figure 2:** Axial T1 post contrast MRI with fat sat showing thick enhancement of the cyst capsule

# **Clinical-Medical Image**

### **Clinical History**

A 28-years-old woman, without significant medical history and living in a rural area, presented with a swelling of the anterolateral aspect of her right thigh that had been increasing in size for last 8 months and had become progressively more painful especially during hip movement, without inflammation or lymphadenopathy.

#### **Imaging Findings**

Right thigh MRI showed multiloculated cystic formations on the right gluteus maximus and gluteus medius muscles extending inter-muscularly to the anterior and medial compartment of the thigh. They were thin-walled and appeared in intense hyper signal T2 weighted imaging and hypo signal T1 weighted imaging. Peripheral enhancement was observed after injection of Gadolinium. The formations respected the femoral vessels, but had a contact to the sciatic nerve, which was repressed but without visible signs of invasion. Surgical excision of mass was performed. Histopathology confirmed the diagnosis of hydatid cyst disease.

#### Discussion

Muscular hydatidosis is rare and is thought to account for only 1-4% of hydatidosis even in highly endemic countries [1]. The thoracic wall musculature, pectoralis major, sartorius, quadriceps and gluteus are the reported locations of primary muscle localizations [2]. Three different pathways can be used by the parasite to reach and penetrate the muscles: passage into the systemic circulation after escaping from the hepatic and pulmonary capillary filtration, lymphatic passage through the intestine, or a venous circuit shunting the liver [3] (Figure 1).

Ultrasound is the first-line examination of choice; images correspond to the stages of Gharbi's classification and reflect the evolutionary stage of the disease [4]. MRI is the gold-standard for diagnosis as it allows for precise localisation and numbering of cysts, as well as assessment of their relationships with the neighbouring vascular and neural elements [5]. Furthermore, it comforts the diagnosis by showing peripheral enhancement after gadolinium injection, eliminating differential diagnoses such as soft tissue tumours [6] (Figure 2).

Treatment of MH is based on a combination of medical treatment and surgery, with wide excision of the mass. Long-term follow-up is recommended for early diagnosis of recurrence.

#### Final diagnosis

Intramuscular hydatidosis

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## Differential diagnosis list

Abscesses Chronic hematomas Lymphangiomas Necrotic malignant soft tissue tumours

Keywords: Muscular hydatidosis; Soft tissue tumours; MRI

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