

A Rare Case Report Primary Hydatid of Adductor Muscle of Thigh

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Abstract: Muscle involvement by means of hydatid disorder usually is a rare entity. We can use more than one imaging studies to discover it preoperatively. We hereby file a case report female patient with hydatid disorder of adductor group of muscle tissue of right thigh identified on ultrasound followed by MRI and confirmed on surgery and histopathological examination.

Keywords: Hydatid, Muscle, MRI, Ultrasound

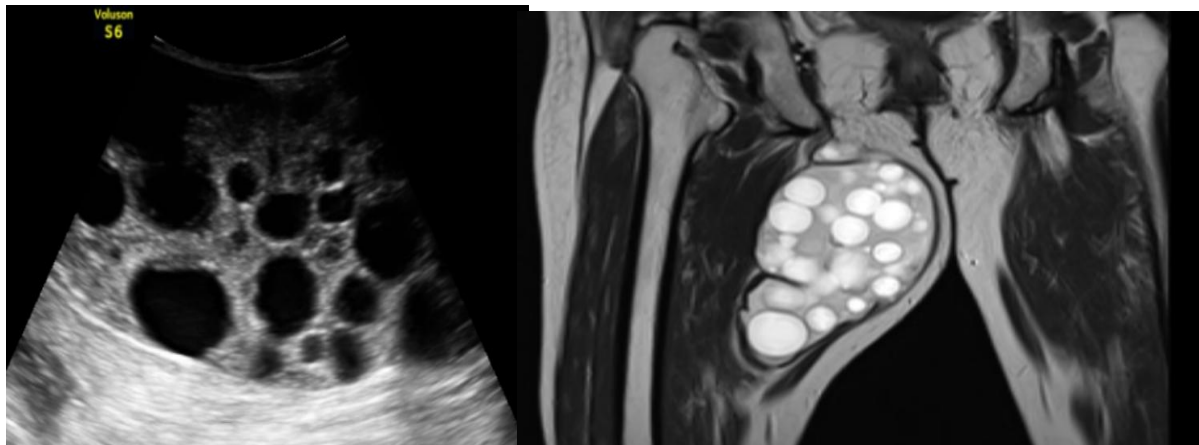
1. Introduction

Primary hydatid of muscle is a completely rare scenario, accounting for about 3-5% of all cases[1]. The skeletal muscles comprise excessive amount of lactic acid which being the principle cause for hydatid to infest within the muscles[2]. Quadriceps, gluteus and adductor group of muscles are normally involved by hydatid in reducing frequency[3-5]. It's been said that the larvae pass through the liver and lung pre-capillary anastomosis among pre and post parenchymal circulation and then reaches to the muscle where it manifests as hydatid cyst. Mseddi et al reported 11 intramuscular hydatid cysts in a period of 17 years[6].

2. Case Report

A 52 year old female presented with swelling in right thigh which was associated with difficulty while walking. The swelling was nontender on palpation. There was no history

of fever or weight loss. He had no past history of surgery or trauma. On physical examination range of motion was normal, peripheral pulsation intact and inguinal lymphadenopathy was absent. Routine chemical analysis was found to be within normal limit. Ultrasonography (USG) of the swelling revealed multiloculated cystic lesion involving adductor group of muscle of thigh (Figure 1). Vascularity on Doppler was absent. USG abdomen revealed no abnormality. MRI showed multiple hyper intense cystic lesions in T2 weighted imaging sequence suggestive of multiple daughter cysts in adductor muscle (Figure 2). The Planes between the lesions and the femoral vessels were well preserved. Marrow signal intensity on femoral and acetabular aspect of bilateral hip joints was normal. Bilateral sacroiliac joint and pelvic bones showed no abnormality. On surgical exploration, glistening white rounded cystic structure was noted. Histopathological analysis confirmed the diagnosis of isolated primary hydatid of adductor muscles of right thigh.



3. Discussion

Hydatid disease is a zoonosis caused by the larval stage of the Echinococcus tapeworm most commonly *E. granulosus* and *E. multilocularis*. USG is the first modality of investigation because it shows characteristic findings such as membranes & septa, hydatid sand and water lily sign i.e. air-fluid level with collapsed floating membranes inside the cyst, daughter cysts, cystic nature. Differential diagnoses of hydatid include abscess, chronic hematoma, and necrotic soft tissue tumor. In case of abscess, CT and MRI show rim

enhancement with contrast. In case of soft tissue tumor, variable enhancement is seen on CT and MRI scans. Hematoma can be identified on in different stages by MRI scans as the blood products are seen well and shows different signal intensities on certain sequences of MRI. CT is modality of choice for detecting calcification and osseous involvement whereas MR imaging is helpful in evaluation of the extent of the lesion in soft tissue and relations with the nerve and vascular pedicles[7, 8]. Hydatid cyst in the bone and muscle induces less antibody response so it is difficult to detect by serological methods than in other regions[9]. Thus,

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imaging plays crucial role in diagnosis and management of intramuscular hydatid.

4. Conclusion

Primary intramuscular hydatid cyst can be seen in which is unusual anatomic location and can be misdiagnosed with other differentials as described making its diagnosis challenging. Any complex cystic structures with or without features of hydatid should be kept as a hydatid as a differential diagnosis especially in endemic zone.

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