

Infected intramuscular hydatid cyst of the thigh

A rare presentation of a common disease

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ABSTRACT

INTRODUCTION: Primary intramuscular hydatid cyst of the thigh is very rare. It represents less than 2-3% of all hydatid cysts. The most common differential diagnosis includes soft tissue sarcoma, degenerative & traumatic lesions. A (29) year old lady presented with history of slowly growing swelling and pain at the posterior aspect of the left thigh. On examination a poorly defined mass which was slightly tender with soft consistency was palpated at the posterolateral aspect of the left thigh. Ultrasonography showed intramuscular cystic mass of 68*90mm size. MRI imaging revealed intramuscular multiloculated mass. Surgery was performed and a diagnosis of infected intramuscular hydatid cyst was established. Patient was maintained on medical treatment. Six months follow up had not shown evidence of recurrence.

Key words: Intramuscular, cyst, hydatid, recurrence.

INTRODUCTION

Echinococcosis may affect several organs of the body. Its presence in rare sites may cause a challenge and diagnostic difficulties to the surgeons. The causes of primary intramuscular hydatid cyst of the thigh are unknown. Preoperative diagnosis if possible is very important for proper management and avoidance of biopsy to minimise a complication of recurrence. Diagnosis of primary hydatid of the thigh needs high index of suspicion.

CASE REPORT

A twenty-nine year-old woman presented with a swelling at the posterior aspect of the left thigh. It started as a small swelling which gradually increased in size over the last 3 months before presentation associated with aching pain. The pain became severe and agonizing enough to limit her usual activities especially during the last few weeks. It was neither associated with fever nor other constitutional symptoms. Patient reported no history of trauma or drug intake. Past medical and past surgical histories were unremarkable. On examination patient was afebrile with normal vital signs. Local examination of the left thigh revealed an ill-defined

mass, soft in consistency, and slightly tender. It located on the posterolateral area. The skin overlying it was completely normal. Inguinal lymph nodes were not palpable. Proximal and distal pulses were palpable symmetrically.

Complete blood count showed haemoglobin of 11 g/dl. White blood cell count was 8800 cells/cm³, with normal differential count. Routine biochemical tests were essentially normal. Erythrocyte sedimentation rate was 42 mm/hour.

Ultrasonography of the left thigh showed large size; about 68 x 90 mm, thick content, and echo free cystic lesion within the muscular layer at posterolateral aspect. Plain X. ray of the thigh showed soft tissue swelling with normal bony contour (see figure 1). MRI imaging revealed multiloculated cystic mass within the muscle compartment of the left thigh (see figure 2). FNA was revealed just few milliliters of thin yellow pus that was sterile on culture. A decision of surgery was made for drainage of pus collection. Under general anaesthesia, a transverse incision was made over the mass deepened down to subaponeurotic space until a thick fibrotic layer was reached. This layer was opened, and pus was drained totally; it contained tissue debris and laminated membrane of hydatid cyst

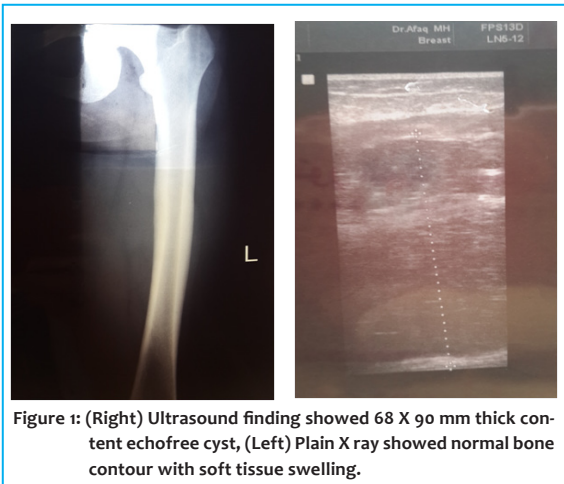


Figure 1: (Right) Ultrasound finding showed 68 X 90 mm thick content echofree cyst, (Left) Plain X ray showed normal bone contour with soft tissue swelling.

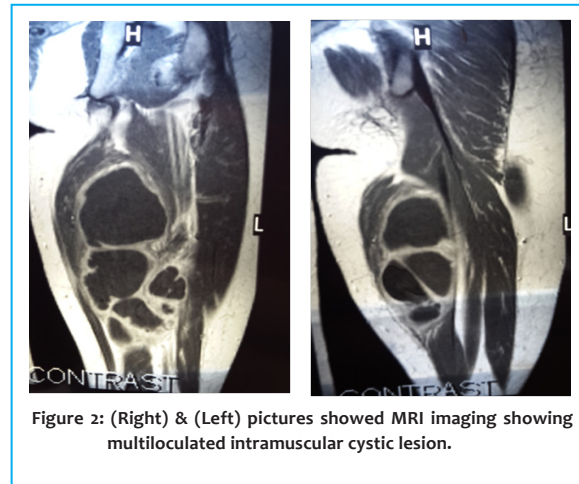


Figure 2: (Right) & (Left) pictures showed MRI imaging showing multiloculated intramuscular cystic lesion.

(a diagnosis of infected intramuscular hydatid of the thigh was established). All loculi were divided and the residual cavity was mopped with packs of gauze soaked in 10% povidone iodine solution, negative suction drainage was applied using Ready Vac drain. Patient put on medical treatment with albendazole (400) mg twice daily. The patient had smooth recovery from anaesthesia with uneventful postoperative course. Follow up of patient for 6 months had shown no local recurrence.

DISCUSSION

Echinococcosis is an endemic surgical problem in Mediterranean countries, Middle East, New Zealand and Australia.¹ Hydatid cyst is a larval form of *Echinococcus granulosus* which potentially can involve any part of the body, but the most commonly involved organs are liver 75%, lungs 15.4 %, and spleen 5.1%. Other rare sites are peritoneal cavity, pancreas, thyroid, kidneys, breast, and thigh.²

In a series of (272) cases, thigh was reported to be involved in 0.37 % of cases.³ The occurrence of hydatid cyst in the thigh is rare for unknown reasons and infection of the cyst at this location is seldom reported in the literatures I have seen.⁴ Being a rare, primary hydatidosis of the thigh can lead to a variety of diagnostic problems. The important differential diagnosis are soft tissue tumours including sarcoma, traumatic and developmental lesions.⁵ Preoperative diagnosis is important in order to avoid dangerous biopsy, prevent rupture and possible anaphylactic shock, and local recurrence.⁶ Ultrasonography, CT scan and MRI imaging are helpful in the diagnosis. The so-called “water-lily” appearance has been described recently on MRI imaging of the thigh to be confirmatory of

intramuscular hydatid cyst of the thigh.⁷

Although FNA should be discouraged it has been reported to be useful when serology is negative.⁸ A variety of serological tests like indirect haemagglutination test (IHA), Latex test and Enzyme-linked immunosorbent assay (ELISA) are used to establish the diagnosis preoperatively, in addition to follow the patient up postoperatively. IgG-ELISA test is the most sensitive immunological test with a sensitivity of 84 %. Eosinophilia is only detected in 50 % of cases.⁹ Since there is no effective medical treatment, surgery remains the treatment of choice. Preoperative medical treatment may sterilise the cyst cavity. Intra-operative irrigation with either Ceftriaxone 0.5 %, Hypertonic saline 15 %, povidone iodine 10%, or silver nitrate can be used to kill the daughter cysts to minimize the risk of dissemination during surgery.

Surgeries may vary from radical procedures like total excision of the cyst along with the pericyst to conservative procedures like neutralization of the parasite and evacuation of the cyst contents leaving the pericyst in place with the drainage of the cyst cavity.¹⁰

CONCLUSIONS

Hydatid cyst of the thigh is a rare form of hydatidosis, it should be included in the differential diagnosis of any slow growing cystic lesions of the thigh. Preoperative diagnosis is mandatory to avoid complications of rupture, anaphylactic shock, long term complication of recurrence and to avoid biopsy. Diagnosis of the hydatid cyst of the thigh needs high index of suspicion. Conservative surgical procedures give good results and complications of radical procedures

like bleeding and injury to adjacent structures are best avoided. Postoperative Albendazole should be added to treatment regimen so as to reduce risk of recurrence.

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