

## Primary Hydatidosis of Vastus Lateralis

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### الخلاصة

تسجيل حالة نادرة لمرض الأكياس المائية في عضلة الفخذ لشاب في الثامنة والثلاثين من العمر في مستشفى السماوة العام والذي يعاني من ورم في أسفل الفخذ كان ينمو بصورة تدريجية لمدة ستة أشهر.

مرض الأكياس المائية مرض منتشر في مناطق معينة من العالم (دول الشرق الأوسط، دول حوض البحر الأبيض المتوسط، استراليا وجنوب أمريكا). عادة يصيب الكبد والرئتين بنسبة 90% من الحالات لكنه قد يصيب أي عضو في الجسم.

المريض المذكور ليس لديه أي تاريخ مرضي سابق للإصابة بهذا المرض والطرق التشخيصية لم تثبت وجوده في أي عضو من أعضاء جسمه الأخرى. تم استئصال الكيس جراحيا بالكامل والفحص النسيجي اثبت الإصابة بمرض الأكياس المائية للعضلة.

### Abstract

Hydatid cyst disease is common in some regions of the world and is usually located in liver and lung, but it can be seen any where in the body. this report presents a case of primary hydatid disease located partially Subcutaneosuly and partially intramuscular in the vastus lateralis.

Case presentation :A 38-year-old male laborer Presented to our hospital with a slow growing swelling in the lateral aspect of his thigh for the last 6 months. Ultrasound and MRI revealed a lesion resembling hydatid cyst. The patient did not have a history of hydatid cyst disease and hydatid cysts were not detected in other organs. Total excision of cyst was done and the pathological examination confirmed the diagnosis.

Conclusion :Muscular hydatidosis should be considered in the differential diagnosis of soft tissue lesions in endemic areas. Total excision of the cyst with an intact wall is the best treatment.

Key words: Hydatid disease ; Echinococcus, Intramuscular .

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## **Introduction**

Hydatid disease has a worldwide distribution and cause health problems in endemic countries [1]. It is prevalent in South America, Australia, the Middle East, and Mediterranean Countries [2,3]. The prevalence of primary muscle hydatid disease is reported to be only 0.5-4.7% [4], because muscle is an unfavorable site for infestation as a result of the contractility and its high levels of lactic acid [5,6]. Hydatid disease in humans is caused by tape-worms, *Echinococcus Granulosus*, and the larval stage is known as the hydatid cyst. *E. granulosus* are most commonly seen in liver (75%) and lungs (15%), it may also involve almost every organ or tissue in the body (10%) [3,7] via the portal and systemic circulation. We report a case of primary hydatidosis of Vastus Lateralis muscle which is a very rare occurrence, thus emphasizing high index of suspicion in cystic swelling of muscles especially in endemic regions.

## **Case Report**

A 38-year-old male presented to our hospital because of a swelling on the lateral thigh that had grown during the last 6 months (Figure -1).

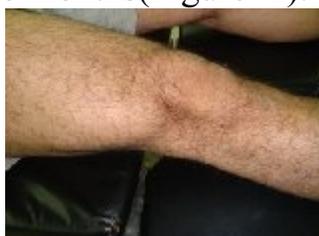


Figure -1

There was no history of weight loss, Fever or trauma. On physical examination, a mobile, painless, non pulsatile, fluctuant, 5×12cm cystic swelling was palpated. The overlying skin was normal. No definite groin lymphadenopathy was detected. The ipsilateral hip and knee joints movement were normal. Distal pulses and sensations were normal too.

Chest and abdominal examination were unremarkable. Preoperative laboratory examination Shows only an increased erythrocyte sedimentation rate (ESR 95mm/ hour). Chest x-ray and abdominal sonography were normal. Serological tests were not done. Ultrasound and MRI of the thigh showed a lesion resembling a hydatid cyst, measuring 225×50×70mm in the lateral aspect of the lower thigh subcutaneously and Intramuscular (Figure -2).



Figure -2

During surgical exploration under general anaesthesia the cyst was reached and completely excised (Figure-3). Subsequent histopathology confirmed the diagnosis .



Figure -3

### **Discussion**

Hydatid disease is a parasitic infestation, which is endemic in many parts of the world . Hydatid disease has been eradicated in many countries. However, it is still widespread in communities in which agriculture dominates ; thus, cystic hydatidosis is a significant public health concern in regions where echinococcosis is endemic [8]. The hydatid cysts of *Echinococcus granulosus* may be found in almost any part of the body, but most often in the liver (75%) followed by the lungs (15%) .

Uncommon locations include the brain ,bone, muscle tissue, adrenals and spleen; accounting for approximately (10%) of instances [9]. Muscular hydatidosis without the evidence of the disease in liver or lungs is rare [10,11]. In our internet-based search for intramuscular hydatid cyst within Vastus Lateralis, only one case was found [ 12] .

Primary intramuscular hydatid cyst present a diagnostic problem not only because of the unusual location and low prevalence, but also because complicated cyst may imitate solid or complex lesions [13].

Diagnosing hydatid cyst is very difficult in patients living outside endemic regions on the contrary it is easily diagnosed in endemic areas [2,8]. The diagnostic tools are clinical, Serological tests, imaging studies (X-ray, U/S, CT and MRI ) and intraoperative Finding but the most important diagnostic tool is the awareness of the physician, particularly for the unusual presentation of the disease[2].

Our case was diagnosed according to the appearance of U/S and MRI in addition to clinical suspicion .

The best treatment option is total surgical excision without opening the cyst. Chemotherapy alone (such as benzimidazole) is not usually sufficient in muscular hydatidosis [14]. In our case , we performed total cyst excision .

### **Conclusion**

Primary muscular hydatidosis may present as a slowly growing soft tissue mass and mimic a soft tissue tumour. Preoperative diagnosis and planning are mandatory in order to prevent complications. Primary muscular hydatidosis should be considered in the differential diagnosis of soft tissue lesions, espically regions where parasite is endemic.

## References

1. Polat P, Kantarci M, Alper F, Suma S, Koruyucu MB, Okur A. Hydatid disease from head to toe. *Radio Graphics* 2003;23:475-494;quiz 536 -537.
2. Abuzer Dirican, Bulent Vnal, Cuneyt Kyealp and Vedat Kirimliagh. Subcutaneous hydatid cyst occurring in the palm and the thigh : two case reports. *J Med case reports*. 2008;2:273 .
3. Engin G, Acunas B, Rozanes L, Acunas G. Hydatid disease with unusual localization. *Eur Radiol* 2000;10:1904-1912.
4. Martin J, Marco V, Zidan A, Marco C. Hydatid disease of the soft tissues of the lower limb; findings in three cases. *Skeletal Radiol* 1993;22:501-514.
5. Mseddi M, Mtaoumi M, Dahmene J, Ben Hamida R, Siala A, Moula T, et al. Hydatid cyst in muscle; eleven cases. *Rev Chir Orthop Reparatrice Appar Mot* 2005; 91:267 -71.
6. Khuroo MS. Hydatid disease :Current status and recent advances. *Ann Saudi med* 2002; 22 :56 -64 .
7. Gossios KJ, Kontoyiannis DS, Dascalogiannaki M, Gourtsoyiannis NC . Uncommon location of hydatid disease: CT appearances. *Eur Radiol* 1997; 7 :1303 -1308 .
8. Turgra Tacal, Deniz Altinok, Yasemin T. Yildiz and G□lcin Altinok. Coexistence of intramuscular hydatid cyst and tape worm. *AJR* 2000; 174 ; 575- 576 .
9. Sahin E, Nayki U, Sadik S. Abdaminal and pelvic hydatid disease during pregnancy. *Arch Gynecol & obstet* 2005; 273:58-9.
10. Totari H, Baran O, Sanlidag T, Gore O, AK D, Manisali M , et al. primary hydatidosis of supraspinatus muscle. *Arch Orthop Trauma Surg* 2001;121: 93-94 .
11. Samir M. Kacheriwala, Ketan D. Mehta, Biju pillai, Yogesh Jain:rare presentation of primary hydatid cyst. *IJS* 2004; Vol.66,No.I; 47-79 .
12. Kocakusak A, Koyuncu A, Arikan S, Senturk O. primary hydatid cyst of Vastus lateralis muscle. *Acta Chir Belg* 2004;104:471-2.
13. Sinner W, te Strake L, Clark D, Sharif H. MR imaging in hydatid disease *AJR* 1991; 157: 741- 745 .
14. K. Basarir, Y. SaqliK, Y .Yildiz,T .Yetis and O. Cebesoy .Primary muscular hydatidosis mimicking Soft tissue tumour: a report of five cases. *Journal of Orthopaedic Surgery* 2008; December1.