PAMJ Clinical Medicine
Pan African Medical Journals

Case report

Solitary subcutaneous hydatid cyst of gluteal area: a rare localization

Mohammed Hajjioui[1,&], Hassan Zejjari[1], Mohamed Ouahidi[1], Toufik.Cherrad[1], Jamal Louaste[1], Larbi Amhajji[1]

[1]Orthopaedic Surgery and Traumatology, Military Hospital Moulay Ismail BP 50000, Meknes, Morocco

[&]Corresponding author: Mohammed Hajjioui, Orthopaedic Surgery and Traumatology, Military Hospital Moulay Ismail BP 50000, Meknes, Morocco

Received: 26 Mar 2020 - Accepted: 18 May 2020 - Published: 26 May 2020

Domain: Public health

Keywords: Hydatid cyst, subcutaneous localization, surgery

Abstract

Subcutaneous localization of hydatid cyst is very rare even in countries where hydatidosis is endemic. Few cases of this localization have been reported in the literature. We report a case of subcutaneous hydatidosis of the gluteal region in a 50-year-old patient who presented with an asymptomatic gluteal region mass with insidious course. Imaging by computed tomography and especially by magnetic resonance is of great diagnostic as soon as the ultrasound cannot manage to decide. The treatment of subcutaneous hydatid cyst is mainly surgical; the technique of choice is perikystectomy while prophylaxis remains the best treatment especially in countries where the hydatid cyst represents a public health problem.

Case report | Volume 3, Article 26, 26 May 2020 | 10.11604/pamj-cm.2020.3.26.22503

Available online at: https://www.clinical-medicine.panafrican-med-journal.com/content/article/3/26/full

Introduction

Hydatidosis is a parasitosis caused by the development in humans of the larval form of *Taenia Echinococcus* especially in certain regions such as the countries bordering the Mediterranean, the Middle East, South America, South Africa and Oceania [1]. Hepatic and pulmonary localizations are the site of choice for hydatid involvement, while very few hydatid diseases involving soft tissue have been reported worldwide. The incidence of tissue echinococcosis, including involvement of subcutaneous lesions is 1 to 5.4% among all cases of hydatid disease, while the echinococcal tissue cyst occurs in 2.3% of reported cases in endemic areas [2]. We report a rare or exceptional case of a subcutaneous localization in the gluteal region of a solitary hydatid cyst without hepatic or pulmonary involvement. The diagnosis was based on a wealth of data from the interrogation, clinic and medical imagery. His treatment consisted of a total excision of the cyst without intrusion.

Patient and observation

Our patient is a 53 year old farmer with no history who consulted for an isolated swelling of the gluteal region progressing insidiously for two years. The examination found a left gluteal mass 12cm long, painless, relapsing, not very mobile in relation to the deep and superficial planes and with no inflammatory signs in sight. There were no inguinal lymphadenopathies and the rest of the somatic examination was unremarkable. The ultrasound was in favor of a subcutaneous formation, well limited, of 10cm of large diameter multi-partitioned cystic, anechogenic, and without signs of invasion strongly evoked a hydatic cyst type III. Computed tomography confirmed the diagnosis by objectifying a rounded subcutaneous mass of 10cm at the level of the gluteal region, with a multicystic appearance (Figure 1). A general assessment looking for localization was carried out: It included a chest x-ray, a liver ultrasound and eosinophilia which were normal. The hydatid serology was negative. Our patient underwent a perikystectomy removing the entire tumor following the cleavage plan (Figure 2, Figure 3). The operating suites were simple. There is no recurrence after one year of decline.

Discussion

Echinococcosis is a parasitosis common to humans and certain mammals, it is found mainly in Mediterranean countries, South America, Australia and Central Asia [1-2]. The final host is the dog; the intermediate host is the sheep. Man accidentally infects himself and becomes an intermediate host, either by eating food contaminated with parasite eggs or by direct contact with a sick dog. Arrived in the human intestines, the parasite borrows the portal system to disseminate in the body. This explains the frequency of hepatic (70% of cases) and pulmonary (10-15% of cases) which constitute a double physiological filter for the dissemination of the parasite [3] In 10% of echinococcosis cases, the localization of the cyst is characterized as rare and concerns the spleen, the pancreas, the gall bladder, the adrenal gland, pelvis, seminal vesicle, heart, bone, breast, kidneys , thyroid gland and soft tissue [4]. It is difficult to explain how the larva can cross the two hepatic and pulmonary filters and form a solitary cyst without associated visceral localization. Knowing that the portal route is the only route of dissemination of the proven larvae in humans, dissemination via the lymphatic route would be possible [5]. The subcutaneous involvement by exceptional consequence as in our case: in fact the frequency of this localization is 2.3% of KH in endemic areas [6].

The clinical symptomatology is polymorphic and is classically manifested by a painless and insidious evolution of relentless mass in a context of preservation of the general state. A notion of close contact with dogs is suggestive. Sometimes, a table of

compression of the adjacent structures [7] or of fistulization to the skin with issue from daughter vesicles [8] is found. Hydatid serology is not very sensitive for localizations in soft tissues, given the frequency of false negatives [9]. However, it has an interest in monitoring treatment when it is positive [10]. Hyper eosinophilia is often absent [11]. Imaging techniques: Ultrasound, computed tomography and magnetic resonance imaging are useful for delineating the location of the cyst, but the results are non-specific. The presence of daughter cysts, detachment of the membrane and calcification of the walls are specific signs that facilitate differential diagnosis. However, hydatid cysts in unusual locations with a simple appearance of a cyst can cause problems with differential diagnosis. The disease can mimic a benign or malignant process, an abscess and other cystic lesions. It is important to establish the preoperative diagnosis in order to limit the risk of anaphylactic shock or dissemination in the event of a puncture event or accidental opening of the cyst during resection. In addition, the infected hydatid cyst may have an atypical appearance [12].

Complete excision is the only effective treatment for hydatidosis. The technique of choice is perikystectomy, removing the entire cyst without breaking the wall, but it is not always possible because of the infiltrating nature of the disease, sometimes posing problems: the usual absence of cleavage planes, especially when the cyst is infected and adhesions to the vascular-nervous elements which can be particularly tight make a complete excision difficult. Intraoperative precautions using fields soaked in hypertonic saline on the edges of the operating wound prevent local spread of scolex [13]. In bone damage, reconstruction by graft with osteosynthesis or by prosthesis is often necessary. When radical elimination is impossible, surgical treatment is not curative and recurrence is the rule after an interval variable and treatment is then limited to partial excision or decompression [14]. In these cases, additional chemotherapy may be considered: anthelmintics, such as mebendazole (50 mg / kg daily) or albendazole (10 mg/kg/day), are indicated. There is no consensus on the duration of chemotherapy, but treatment of 4 to 6 months seems adequate [1]. Prophylaxis is of great help and the implementation of hydatidosis control programs seems to be effective, especially in endemic countries.

Conclusion

The hydatidosis with solitary localization in the subcutaneous tissue is exceptional but it is necessary to think of it especially in the endemic zones. The diagnosis is based on a bundle of clinical and paraclinical arguments. Perikystectomy is the treatment of choice. Surveillance for recurrence is essential for prevention, and the best way to combat hydatid disease, wherever it is located.

Competing interests

The authors declare no competing interests.

Authors' contributions

All the authors have read and agreed to the final manuscript.

Figures

Figure 1: CT Of the pelvis: aspect of subcutaneous hydatid cyst of gluteal area

Figure 2: macroscopic aspect after monobloc surgical excision of the hydatid cyst

Figure 3: intraoperative image after excision of the mass

References

1. Safioleas M, Nikiteas N, Stamatakos M, Safioleas C, Manti CH, Revenas C *et al*. Echinococcal cyst of the subcutaneous tissue: a rare case report. Parasitology International. Parasitol Int. 2008 Jun;57(2):236-8. **PubMed** | **Google Scholar**

2. Orhan Z, Kara H, Tuzuner T, Sencan I, Alper M. Primary subcutaneous cyst hydatic disease in proximal thigh: an unusual localisation: a case report. BMC Musculoskelet Disord . 2003 Nov 7;4:25. **PubMed** | **Google Scholar**

3. Safioleas M, Misiakos E, Manti C. Surgical treatment for splenic hydatidosis. World J Surg. 1997 May;21(4):374-7. **PubMed** | **Google Scholar**

4. Echenique Elisondo. Amondarain Annatibel, Rare locations of hydatid disease. Cirurgia. 2002; 27: 1.

5. Ok Engin, Sozuer EM. Solitary subcutaneous hydatid cyst: a case report. Am J Trop Med Hyg. 2000;62(5):583-4. **Google Scholar**

6. Daoudi A, Loudiyi WD, Elibrahimi A, Elmrini A, Chakour K, Boutayeb F. Solitary subcutaneous hydatid cyst of gluteal area: an unusual localization. A case report. Ann Chir Plast Esthet. 2008 Oct;53(5):448-51. **PubMed** | **Google Scholar**

7. NecatiO, Ramazan I, Serdar A, Murat P, Sahin C, Hakan E *et al*. Hydatid cysts in muscle: a modified percutaneous treatment approach. Int J Infect Dis . 2007 May;11(3):204-8. **PubMed** | **Google Scholar**

8. Alouini Mekki R, Mhiri Souei M, Allani M, Bahri M, Arifa N, Jemni Gharbi H *et al*. Hydatid cyst of soft tissues: MR Imaging Findings (Report of three cases. J Radiol. 2005 Apr;86(4):421-5. **PubMed** | **Google Scholar**

9. Kammerer WS, Schantz PM. Echinococcal disease. Infect Dis Clin North Am. 1993 Sep;7(3):605-18. **PubMed** | **Google Scholar**

10. Bonitacino A, Carino R, Caratozzolo M. L´échographie dans l´hydatidose: symposium international sur l´hydatidologie. Med Chir Dig. 1989;18:301-12.

11. Safioleas MC, Moulakakis KG, Manti C, Kostakis A. Coexistence of primary adrenal hydatid cyst and arterial hypertension: report of a case and review of the literature. Acta Chir Belg. 2006;106(6):719-21. **PubMed** | **Google Scholar**

12. Tarhan NC, Tuncay IC, Barutsu O, Demirors H, Agildere AM. Unusual presentation of an infected primary hydatid cyst of biceps femoris muscle. Skelet Radiol. 2002;31(10):608-11. **PubMed** | **Google Scholar**

13. Jerbi Omezzinea S, Abidb F, Mnifc H, Hafsaa C, Thabeta I, Abderrazekc A *et al*. Une localisation rare primary hydatid disease of the thigh: a rare location. Skelet Radiol. 2002;31(10):608-11. **PubMed** | **Google Scholar**

14. Ladeb MF, Chelli Bouaziz M, Chakroun M, Loussaief C. Atteintes parasitaires de l´appareil locomoteur. Skelet Radiol. 2002;31(10):608-11.

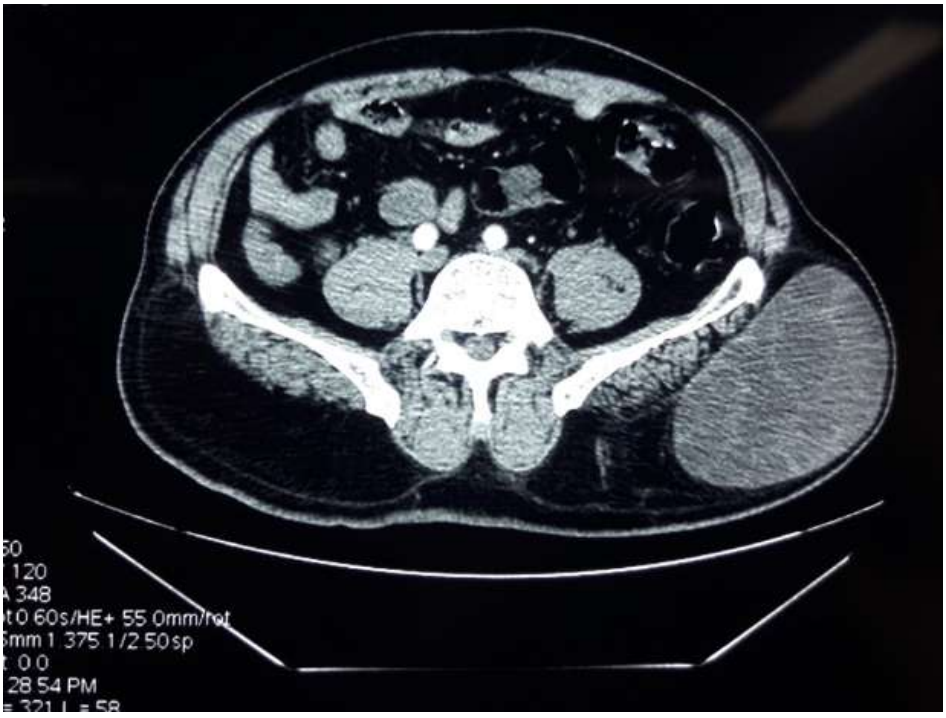

Figure 1: CT Of the pelvis: aspect of subcutaneous hydatid cyst of gluteal area

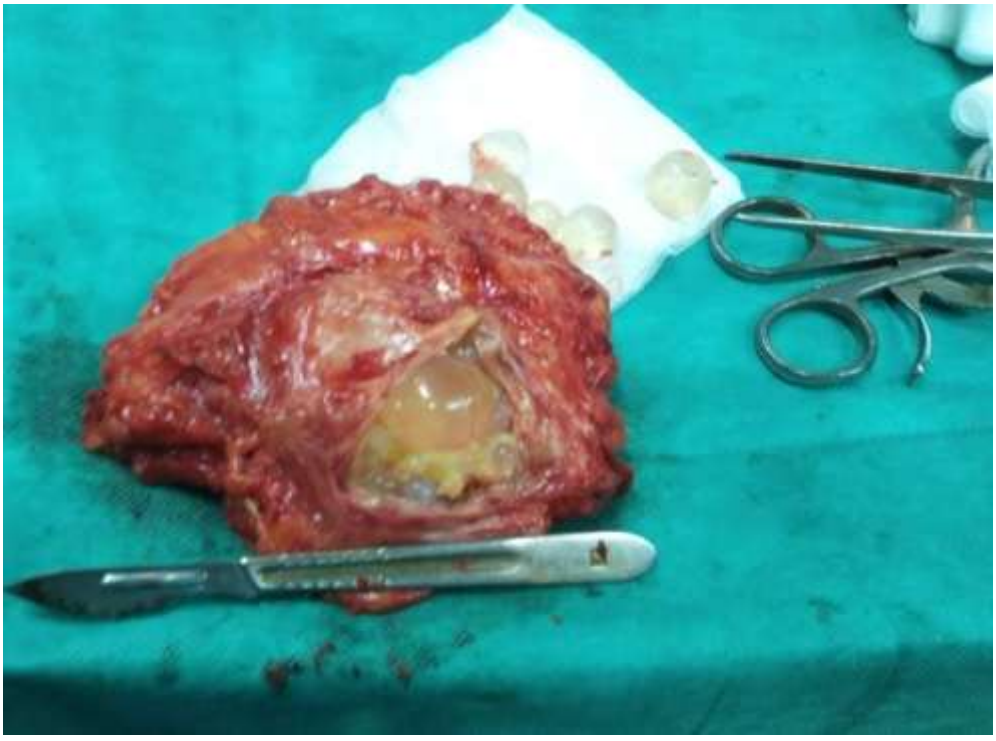

Figure 2: macroscopic aspect after monobloc surgical excision of the hydatid cyst

Figure 3: intraoperative image after excision of the mass