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Short Report

Isolated Hydatic Cyst in the Subcutaneous Tissue

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The hydatid cyst caused by echinococcus granulosus is often manifested by a slowly growing cystic mass, most often involving the liver and the lungs (78%) (1,2). Echinococcus granulosus can be found on any part of the body except the hair, teeth and nails (3). We describe a patient who had an isolated hydatid cyst in subcutaneous fat.

Case Report

A female 42-year–old patient presented to our clinic with the complaint of a slow-growing, slightly tender mass of the medial aspect of the right thigh. When she found this mass four years previously, it was very small. It had become larger over time. In the patient's history, there was nothing remarkable except for the dog that she had at home. On physical examination of the patient, we found a nontender, semimobile, smooth bordered mass measuring 5 cm in diameter. The overlying skin was normal and mobile.

Because of our suspicion of a malignancy, a fine needle aspiration (FNA) biopsy was performed (4,5). Ten milliliters of clear fluid was taken from the lesion but in the chemical and pathological analyses nothing was found. Smears prepared from the sediment were fixed in 95% ethyl alcohol and stained by the Papanicolaou technique. Microscopic examination of smears showed some polychromatic spherical and oval structures with eosinophilic granules which were observed and identified as scoleces of Echinococcus granulosus. The diagnosis of a hydatid cyst in the soft tissue was made. In this way we diagnosed this illness as a hydatid cyst. We determined the viability with dye-uptake (1% Eosin) and the flame cell activity of the scoleces that were obtained from the cyst (6).

Because of the FNA biopsy we did not need to use imaging methods or serologic tests. Due to the fact that we diagnosed the patient's illness as a hydatid cyst, a CT scan of the chest and ultrasound examination of the abdomen were performed. These diagnostic tests showed no evidence of other organ involvement. Therapy with albendazole (10 mg/kg/day) was started and the patient underwent surgery 4 weeks later (7). The mass was surgically removed (Figure). She made an uneventful recovery and no recurrence was apparent at follow-up after 6 months.

E. Granulosus infestation is frequently seen in sheep and cattle raising areas. And the hydatid cyst is endemic in South America, Australia, most of Africa, and the Mediterranean countries (8). Soft-tissue hydatid cysts occur in 2.3% of cases reported from endemic areas; they are usually associated with the involvement of other structures. In the medical literature there are few articles about the isolated subcutaneous hydatid cyst (9,10).

In our patient there was an isolated hydatid cyst that was located on the inner surface of the right thigh. In the medical literature, it is pointed out that after the daughter scoleces that were in the hydatid cyst of the liver leave the cyst and places in the subcutaneous area, the cyst occurs entirely by being collapsed (11).

Symptoms are caused by pressure of the expanding cyst (11). Our patient's symptom was a pain that occurred with the growing of the mass.

Serologic tests have a role in the follow-up of patients after surgery, when any subsequent titer rise is likely to indicate recurrence (12).

Ultrasonography is considered the diagnostic method of first choice for the subcutaneous hydatid cyst.

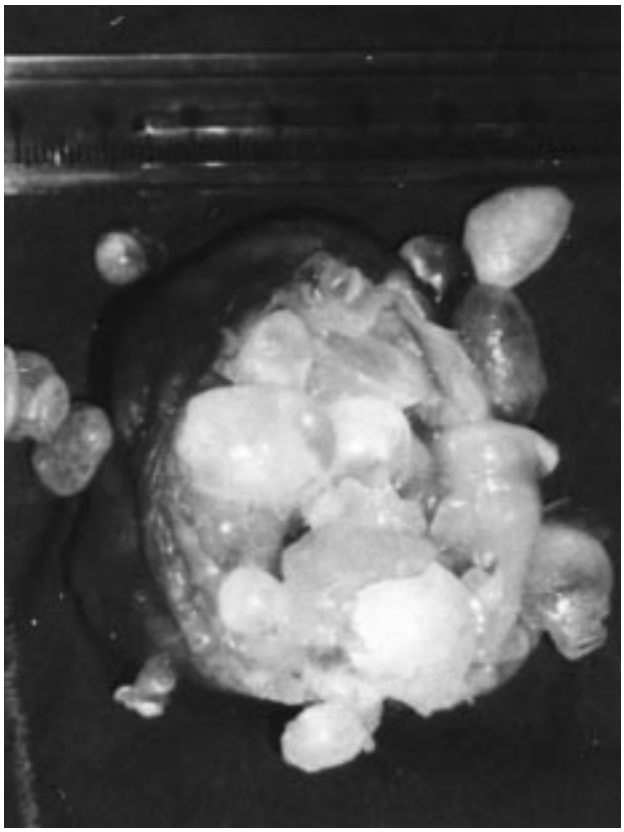

Figure: Macrospopic view of the hydatid cyst.

Computed tomography and MR imaging must be the second method (13). Especially for subcutaneous lesions that may be malignant, FNA biopsy must not be used. FNA biopsy of the hydatid cyst is not recommended because of the possibility of introducing protoscoleces into the needle tract and the risk of anaphylactic reactions (13). However, percutaneous aspiration of unsuspicious hydatid cysts, as in our case, has been done without complications.

Many surgeons prefer a course of albendazole before surgery in an attempt to sterilize the cystic contents. Percutaneous drainage combined with chemotherapy is a relatively safe procedure in experienced hands, but dissemination and anaphylaxis are potential risks (13).

For the subcutaneous hydatid cyst, the treatment must always be total surgical excision.

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References

1. Amir-Jahed AK, Fordin R, Forzad A, Bakshandeh K. Clinical echinococcosis. Ann Surg 182: 541-546, 1975.
2. Emany HDM, Assadian A. Unusual presentation of hydatid disease. Am Surg 42: 875-878, 1976.
3. Ismail MA, Alda Bagh MA, Aljanabi TA. The use of CT in Hydatid cysts. Clin Radiol 31: 287-292, 1980.
4. David O, Kluskens L,Reddy V, Gattuso P. Malignant cutaneous and subcutaneous abdominal wall lesions: a fine needle aspiration study. Diagn Cytopathol 19 (4): 267-269, 1998.
5. Gupta RK, Naran S, Cheung YK. Fine needle aspiration cytology of soft tissue calcinosis presenting as an enlarging mass in the chest wall. Diagn Cytopathol 19 (6): 465-467, 1998.
6. Tsimoyiannis EC,Siakas P, Glantzounis G, Tsimoyiannis JC, Karayianni, M. Intracystic pressure and viability in hydatid disease of the liver. Int Surg 85 (3): 234-236,2000.
7. Gil-Grande LA, Rodriguez-Caabeiro F, Prieto JG, et al. Randomised controlled trial of efficacy of albendazole in intra-abdominal hydatid disease. Lancet 342 (8882): 1269-72, 1993.
8. Turner JA Cestodea in: Feigin RD, Cherry JD (eds) Textbook of the paediatric infectious diseases. Saunders, 3rd Ed. Philadelphia, pp 2106-09, 1992.
9. Chevalier X, Rhamouni A, Bretagne S. Hydatid cyst of the subcutaneous tissue without other involvement: MR imaging features. AJ R 163: 645-646, 1994.
10. John M, Paole J, Friedland IR. Posterior neck mass in a four-year old boy. Ped Infect Dis J 14 (2): 1122-1123, 1995.
11. Saidi F. Abdominal and pelvic hydatid cyst. In: Saidi F editor. Surgery of hydatid disease. W.B. Saunders, London, pp 284-310, 1976.
12. Bastid C, Azar C, Doyer M, Sahel J. Percutaneous treatment of hydatid cysts under sonographic guidance. Dig Dis Sci 39: 1576-80, 1994.
13. Morris DL, Richards (eds) (1992) Hydatid disease: Current medical and surgical management. Butterworth-Heinemann Oxford, United Kingdom, pp356-366.