

Intramuscular Hydatid Cyst Of The Arm (Unusual Location In The Triceps) A Case Report.

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Abstract: *Hydatidosis is a parasitic and zoonotic disease caused by Echinococcus granulosus, Primary hydatid cyst of the musculoskeletal system mainly affects the lower limbs, and his location in the triceps brachialis muscle with compression of the radial nerve is rarely reported in the literature. Total excision is the rule. Long-term follow-up is necessary to detect local or distant recurrence.*

Keywords: hydatid, cyst, triceps, nerve, radial, excision.

INTRODUCTION:

Hydatidosis is a parasitic and zoonotic disease caused by Echinococcus granulosus, widespread in the Mediterranean region, Morocco is one of the endemic countries. Liver and lung are the most frequently affected locations, with the brain, heart, kidneys, ureter, spleen, uterus, pancreas, diaphragm and extremity muscles rarely involved [1].

Primary infection of the hydatid cyst at the extremities is rare and localization at the brachial triceps muscle is very rare, which is a challenge for surgeons as there are few cases reported in the literature. We report a case of primary hydatid cyst in the left triceps muscle in a 45-year-old man.

Observations:

A 45-year-old male, with no significant pathological history, living in a rural zone, who has pain and swelling of the left arm associated with paresthesias in the radial nerve territory that has been evolving for 06 months. On examination, it was afebrile and in good general condition, palpation found a poorly limited mass, adhering to the deep plane, without inflammatory signs, mobility of the upper limb was retained. X-ray of the arm was normal. The ultrasound of the left arm objectified an encysted collection, homogeneous without calcification or vegetation in well limited by a thin membrane which is enhanced with Doppler. Magnetic resonance imaging (MRI), finds an aspect in hypointensity in T1 and hyperintensity in T2, with the presence of multilobed cystic formations and numerous vesicles at the muscle chambers and pathognomonic sign of enhancement of the cyst wall after gadolinium injection. The cyst has a close contact with the radial nerve (figure1). A CT scan for other locations of the hydatid cyst was done returning normal.



Figure 1: MRI appearance of a hydatid cyst in the triceps muscle, showing the enhancement of the cyst wall after gadolinium injection.

The patient was admitted to the operating room for excision, installed in lateral decubitus under general anesthesia, by posterior approach, during the dissection we found that the mass is above the median head of the triceps and that the radial nerve was attached to the cyst (figure 2).

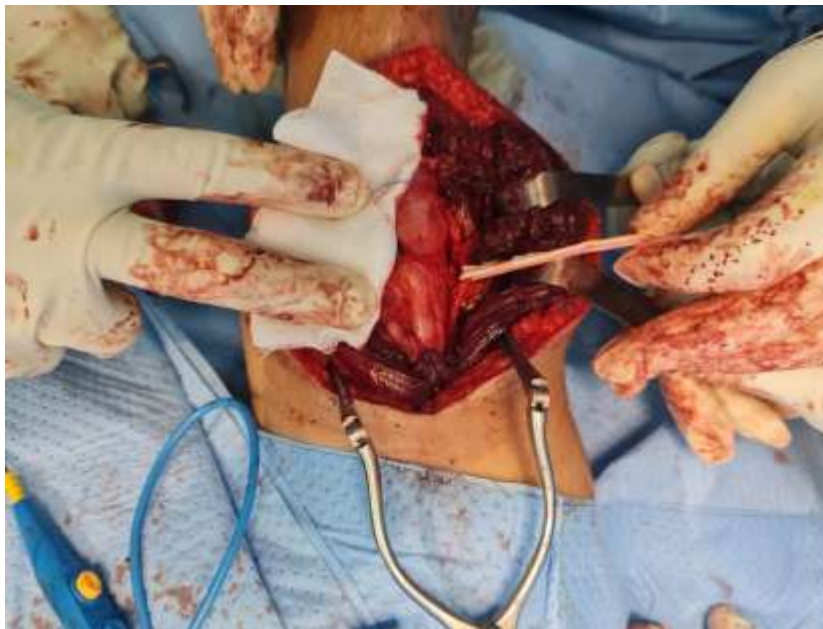


Figure 2: Operative aspect of the cyst above the median head of the triceps and its close to the radial nerve.

The cyst was carefully dissected from adjacent structures and completely excised without rupture of the wall (figure3).



Figure 3: Appearance of the cyst after excision.

The anatomic-pathological results confirmed the diagnosis; the therapeutic approach was followed by a medical treatment based on Albendazol for 28 days with good clinical and radiological evolution at 02 years of follow-up.

DISCUSSION:

The hydatid cyst is widely spread throughout the world, The Mediterranean, the Middle East, Eastern Europe, Australia, South America and African countries are endemic areas of hydatid disease and of which Morocco is a part [2,3].

The hydatid cyst can affect any organ and tissue, and the most affected locations are the liver and lung respectively [4], the musculoskeletal system is rarely affected [5].

The primary hydatid cyst of the musculoskeletal system mainly affects the lower limbs, its location in the brachial triceps muscle is rarely reported in the literature [6, 7].

In our case the patient presented with left arm pain with paresthesia in the radial nerve territory which is explained by the compression of the latter by the cyst, peripheral nerve damage by hydatid cyst in the upper limb has not been reported in the literature. Sciatica and lumbar plexus causing sciatalgia or falling foot were reported by Kazakos and kalaci [8, 9]

There was a marked clinical improvement in pain and paresthesia during short-term follow-up after excision.

Concerning the diagnosis Ultrasound is a first-line exam but MRI is the exam of choice, it has a diagnostic interest, and above all it makes it possible to clearly specify the seat and the number of cysts, and make an accurate assessment of these relationships with the surrounding vasculonervous elements [10].

Treatment of the hydatid cyst is surgical. Surgery should be Careful to avoid rupture of the cyst during dissection, It is especially necessary to protect the surgical field by a solution of hypertonic saline serum with or without hydrogen peroxide in order to avoid dissemination during the operation, which can cause anaphylactic shock. One-piece excision with total pericystectomy is the ideal technique, but not always feasible if the cyst is large or deep and making contact with neighboring vasculo-nervous elements. Medical treatment with albendazol remains questionable and is indicated either for inoperable patients or in cases of massive recurrence, we recommend that it be prescribed in addition to surgery [11]

Long following-up is mandatory in order to detect local or remote recurrence. It is based on clinical examination, imaging and serology [12].

CONCLUSION:

The primary localization of hydatid cyst in the triceps is very rare, and peripheral nerve damage is possible by compression.

Ultrasound and MRI are essential to make the diagnosis. One-piece excision is the rule, in addition to anthelmintic treatment. Long-following-up is necessary in order to detect local or distant recurrence.

REFERENCES:

1. C. White Jr, P.F. Weller Cestodes S. Anthony Fauci (Ed.), Harrison's Principles of Internal Medicine (Seventeenth ed.), McGraw-Hill, New York (2008), p. 1339.
2. M.A. Cucher, N. Macchiaroli, G. Baldi, *et al.* Cystic echinococcosis in South America: systematic review of species and genotypes of *Echinococcus granulosus* sensu lato in humans and natural domestic hosts Trop Med Int Health, 21 (2016), pp. 166-175.
3. C.F. Pavletic, E. Larrieu, E.A. Guarnera, *et al.* Cystic echinococcosis in South America: a call for action Rev Panam Salud Publica, 41 (2017), p. e42.
4. M. Mihmanli, U.O. Idiz, C. Kaya, *et al.* Current status of diagnosis and treatment of hepatic echinococcosis World J Hepatol, 8 (2016), pp. 1169-1181
5. A.A. Uraiqat, A. Al-Awamleh Case report: hydatid cyst in the muscles JRMS, 17 (Supplement 1) (2010), pp. 72-74.
6. Tekin R, Avci A, Tekin RC, Gem M, Cevik R. Hydatid cysts in muscles: clinical manifestations, diagnosis, and management of this atypical presentation. Rev Soc Bras Med Trop 2015; 48:594-8.
7. Ayesha Mughal, Muhammad Saeed Minhas, Anisuddin Bhatti, Farooq Ahmed Moghul, Muhammad Muzzammil Sangani, Kashif Mehmood Khan et al. Hydatid Cyst of Skeletal Muscle Presenting as Soft Tissue Tumour. Journal of the College of Physicians and Surgeons Pakistan 2018, Vol. 28 (Special Supplement 1 of Case Reports): S51-S53.
8. C.J. Kazakos, V.G. Galanis, D.A. Verettas, A. Polychronidis, C. Simopoulos Primary hydatid disease in femoral muscles J. Int. Med. Res., 33 (6) (2005), pp. 703-706.
9. A. Kalaci, T.T. Sevinç, A.N. YanatSciatica of nondisc origin: hydatid cyst of the sciatic nerve. Case report J. Neurosurg. Spine, 8 (4) (2008), pp. 394-397.
10. Sodhi KS, Bhatia A, Samujh R, Mathew JL, Lee EY. Prospective Comparison of MRI and Contrast-Enhanced MDCT for Evaluation of Pediatric Pulmonary Hydatid Disease: Added Diagnostic Value of MRI. AJR Am J Roentgenol. 2019 Feb 19:1-6.
11. Dehkordi AB, Sanei B, Yousefi M, Sharafi SM, Safarnezhad F, Jafari R, Darani HY. Albendazole and Treatment of Hydatid Cyst: Review of the Literature. Infect Disord Drug Targets. 2019;19(2):101-104.
12. McManus DP, Gray DJ, Zhang W, Yang Y. Diagnosis, treatment, and management of echinococcosis. BMJ 2012; 344:e3866.