



A CASE OF HYDATID CYST LOCATED IN MUSCLE TISSUE

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<p>Article Info <i>Received 05/03/2015</i> <i>Revised 10/03/2015</i> <i>Accepted 14/03/2015</i></p> <p>Key words: Hydatid cyst, Muscle tissue and ultrasonography</p>	<p>ABSTRACT Hydatid cyst is most commonly located in the liver and lungs. Its location in the muscle, myocardium, diaphragm and soft tissue is rare. Diagnosis of hydatid cyst is based on serological and radiological methods. The primary treatment of the disease is surgically removal of the cyst. In this case report, a case of hydatid cyst located within the muscle groups of the right biceps femoris which was totally excised is reported.</p>
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INTRODUCTION

It has two forms as *Echinococcus granulosus* and *Echinococcus multilocularis* in humans [1]. It is most commonly located in the liver (55-70%) and the lungs (18-35%). Concurrent involvement of both organs is seen in the ratio of 5-13% [2, 3]. Involvement of the other body parts like kidneys, brain, spleen, thyroid, pancreas, bones, peritoneum, muscle and soft tissue is rare. Primary soft tissue and muscle involvement is quite rare also in the endemic areas; its prevalence varies between 0.5-4.7% [4-6].

CASE

The 20-year-old male patient was admitted to General Surgery Clinic with complaint of swelling in thigh. On his physical examination, a 10 cm of mass lesion with regular contours located deep in subcutaneous tissue was detected in the posterior side of the lower extremity, in superior of fossa poplitea. A mass lesion consistent with hydatid cyst measuring 8x6 cm was detected on superficial tissue ultrasonography and the tomography of the lower extremity. Abdominal and thorax tomography were reported as normal. Muscle tissue was accessed above the

mass under spinalanesthesia. The mass lesion located between biceps femoris muscle groups was reached and totally excised. Daughter vesicles within the cyst were evacuated. The histopathologic examination result was reported as hydatid cyst and the patient was discharged smoothly on postoperative day 4.

DISCUSSION

Echinococcus cestode, the causative agent of hydatid cyst needs two mammals for completing its life cycle. The first mammal in this cycle is the dogs followed by sheep and horses and rarely humans. The disease arises in the liver in the ratio of 70% and in the lungs in the ratio of 20% after ingesting contaminated food. The cestodes entering in the systemic circulation through the portal vein may be located in the muscles (5%), spleen (1%), bones (3%), kidneys (2%), heart (1%) and the other internal organs [7, 8]. Hydatid cyst is seen very rarely in the skeletal muscle as intramuscular growth of the parasite is hindered by muscle contraction and the presence of lactic acid in the muscles [9]. However the parasitic cyst tends to grow around the muscles in trunk, neck and legs due to less



muscle contraction and more vascularization. Intramuscular hydatid cyst was reported in chest wall muscle, pectoralis major muscle, sartorius muscle, quadriceps and gluteus muscles [10, 11]. Treatment of soft tissue hydatid cysts includes surgical excision. In our case, hydatid cyst was totally excised and the intra-cystic daughter cysts were evacuated and the mass lesion was seen to be consistent with hydatid cyst.

Diagnosis of hydatid cyst may be made easily if

located in skeletal muscle if it coexists with more than one organ involvement and also detected serologically. However diagnosis of the hydatid cyst cases primarily located in skeletal muscle is not easy. Using radiological imaging methods like ultrasonography, CT or MRI provides correct data about the structure of the cyst, the relation between the cyst and the neighbouring tissues in diagnosis of the slowly growing mass lesions in musculoskeletal system.

Fig 1. The cyst within the muscle tissue



Fig 2. The cyst and the daughter vesicles within the cyst



Fig 3. The excised hydatid cyst



CONCLUSION

In conclusion, hydatid cyst should be kept in mind in assessment of the cystic mass lesions located in the soft

tissue in the areas where hydatid cyst is endemic. Treatment should be total surgical excision of the cyst.

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