Inguinal Hydatid cyst in a child: A rare case report

Sajad A Wani *, Aejaz A Baba, Nisar A Bhat, Raashid Hamid, Gowher N Mufti

Department of Paediatric Surgery, SKIMS Soura, Srinagar, Jammu and Kashmir, India

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ABSTRACT

INTRODUCTION: Hydatid disease is a common health problem in developing countries and liver and lungs are the most commonly involved organs. Hydatid cyst in inguinal canal is very rare and no case in children has been reported in literature.

PRESENTATION OF CASE: We describe a four year male child with right inguinal swelling with occasional pain and gradually increase in size. The diagnosis of lipoma of the cord was made. Up on inguinal exploration, coincidently Hydatid cyst was detected. Postoperatively histopathological examination (HPE) of the cyst confirmed the diagnosis of Hydatid disease and patient was put on albendazole therapy for three months.

DISCUSSION: Hydatid disease is very rare in the inguinal canal and no case in children has been reported. In adults fewer than five cases has been reported and is usually coincidently detected during surgical exploration, as was in our case. Ultrasonography, CT, MRI and other serological tests may help in preoperative diagnosis.

CONCLUSION: In endemic areas, patients with progressive enlarging groin swelling, possibility of Hydatid cyst should be kept in mind and should be operated as early as possible.

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1. Introduction

Echinococcus granulosus infestation has world wide distribution particularly in areas where sheep are raised [1]. Almost every organ of the body has been involved from head to toe and in our case it was present in inguinal canal. Less than five cases of Hydatid cyst in the inguinal canal in adults but no case in children has been reported so far.

2. Case report

A 4 year male child was admitted in our department as a case of right inguinal swelling with on and off pain and gradually increase in size. The swelling was irreducible. Ultrasonography of the groin was showing a cystic lesion in the right groin and normal on left side. The diagnosis of lipoma of the cord was made. All the baseline investigations were normal. Patient was planned for right inguinal exploration, which revealed a cystic swelling in the hernial sac. On opening of the sac, this cystic swelling was Hydatid membrane which was removed and sac was ligated high up [Fig. 1]. Through washes of the wound with scolicidal agent was done and wound was closed back. Postoperatively USG abdomen and pelvis was unremarkable. HPE of the Hydatid membrane confirmed the diagnosis of Hydatid disease and patient was put on albendazole chemotherapy for three months.

3. Discussion

Hydatid disease caused by Echinococcus granulosus is very rare in the inguinal canal and human are accidental intermediate hosts.

* Corresponding author at: Married doctors Hostel A- Block, Room no. -F5, SKIMS Soura, Srinagar Pin 190011, India. Tel.: +91 9596310531.
E-mail address: ahmadsajadwani@gmail.com (S.A. Wani).
The disease occurs in most areas of the world and currently affects about one million people. In some areas of South America, Africa, and Asia up to 10% of the certain populations are affected. Hydatid disease is endemic in cattle-and sheep-raising regions of the world such as Central Europe, the Mediterranean countries, the Middle East, South America, Australia, New Zealand, and South Africa [2,3]. It is a serious health problem in such countries. Hydatid disease has feco-oral route. The disease is attributed to occupational exposure during farming practices particularly in rural areas, ingestion of contaminated vegetables, drinking of egg-contaminated water and traditional intake of mutton and beef. After ingestion, embryos from eggs reach the liver via portal vein, were most of the cysts are seen [4]. If the embryos escape the hepatic filter, they enter the systemic circulation and can settle and form cysts anywhere in the body from head to toe [5]. Hydatid cyst of the inguinal canal is very rare and only less than five cases in adults but no case in children has been reported in the literature. The differential diagnosis of such swelling includes inguinal hernia, encysted hydrocele of the cord, lipoma of the cord. Our case of Hydatid cyst in inguinal canal was not diagnosed preoperatively due to very rarity of this disease at this unusual site. In this patient, there was no past history of surgery for the Hydatid cyst. The possibility of inguinal Hydatid in this patient could be due to spillage of abdominal Hydatid fluid in to the hernial sac with formation of inguinal Hydatid cyst. Post operatively detailed search for daughter cysts by abdominal CT scan was planned but parents of the patient were reluctant for abdominal CT. Although Hydatid disease of the inguinal canal is very rare, a high index of suspicion in endemic areas should be considered. Clinical manifestations are related with compression of involved organ [6]. Ultrasonography, CT, MRI and other serological tests may help in diagnosis. However due to uncommon locations, diagnostic problems frequently occur and specific diagnostic tests do not have 100% reliability in these cases [7].

4. Conclusion

Hydatid disease is very rare in the inguinal canal. In patients with progressive enlarging groin swelling particularly in endemic areas, possibility of Hydatid cyst should be kept in mind. Such patients should be operated early due to risk of rupture, anaphylaxis and associated morbidity and mortality.

Conflict of interest
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Consent
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Authors contribution
All authors have contributed as being part of surgical team.

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