CASE REPORT

THE PRIMARY TORSION OMENTAL HYDATID CYST: A RARE CASE

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ABSTRACT

Hydatid disease is a considerable social health problem because of its endemic distribution in many countries. It is a parasitic disorder caused by Echinococcus granulosus. The human is an accidental host of the parasite. Mostly, hydatid cyst is primarily in liver (75%) and lung (15%). Intraperitoneal hydatid cyst is found in 13% and it is usually secondary to rupture of primary hepatic cyst. We represent the case of 29 years old female having multiple intra-abdominal hydatid cysts in which one is a primary torsion omental hydatid cyst which is very rare. The open surgical intervention in the form of total pericystectomy is best, safe and effective in this case.

Key-words: The hydatid diseases, the primary torsion omental hydatid cyst, open surgical intervention

INTRODUCTION:

Hydatid disease is a considerable social health problem because of its endemic distribution in many countries. Hydatid disease is caused by the parasite Echinococcus granulosus. Geographic distribution differs by country and region depending on the presence in that country of large numbers of nomadic or semi-nomadic sheep and goat flocks that represent the intermediate host of the parasite, and their close contact with the final host, the dog, which mostly provides the transmission of infection to humans. The greatest prevalence of cystic echinococcosis in human and animal hosts is found in countries of the temperate zones, including several parts of Eurasia (the Mediterranean regions, southern and central parts of Russia, central Asia, China), Australia, some parts of America (especially South America) and north and east Africa [1] . Hydatid disease occurs in humans as a result of faeco-oral contamination [2] . It may be found in nearly any part of the body, most often in the liver and the lungs. Mostly, hydatid cyst is primarily in liver (75%) and lung (15%) [3] . Intraperitoneal hydatid cyst is found in 13% and it is usually secondary to rupture of primary hepatic cyst [4] . Ultrasonography is the screening method of choice. Computed tomography is indicated in cases in which ultrasonography is inadequate and has high sensitivity and specificity for calcified hydatid cysts. Magnetic resonance is the best imaging procedure to demonstrate a cystic component and to show a biliary tree involvement [5] .A standardized test for the serodiagnosis of human cystic echinococcosis is still needed, because of the low specificity and sensitivity of the currently available commercial tools and the lack of proper evaluation of the existing recombinant antigens. The new 2B2t-ELISA is a promising candidate test for the serodiagnosis of CE in clinical settings [6] .

CASE HISTORY

A female 29 years old patient had lower abdominal pain since last 1 month. She had lower abdominal pain since last 10 days. She had occasional fever, vomiting and burning micturition since last 10 days. On abdominal system examination, there was tenderness in left iliac fossa and hypogastrium. There was a tender mobile lump 6×6 centimetres in size in left iliac fossa. There was a mild hepatomegaly. The ultrasonography of abdomen showed multiple hydatid cysts in the abdomen largest measuring around 6×6 centimetres in segment 6 of liver. The CT scan of the abdomen & pelvis showed the same findings. The patient was operated for exploratory laparotomy. On exploration, there was a torsion omental hydatid cyst of 6×6 centimetres size. This cyst was blackened due to strangulation due to twisted omentum (e.g. figure-1). Apart from this, there were multiple hydatid cysts. The location & size are as follow, (1) 5×5 centimetres just anterior to uterus (2) 5×5 centimetres just near to left adnexa (3) 6×6 centimetres in segment 6, 7×7 centimetres in segment 7 of liver. The total pericystectomy was done in all cysts except for liver in which marsupialization was done due to difficult exposure.

DISCUSSION

The life cycle of E. granulosus involves a definitive

host (dogs and other canids) for the adult E. granulosus that resides in the intestine and an intermediate host (sheep and other herbivores) for the tissue-invading metacestode (larval) stage. Humans are only incidentally infected; since the completion of the life cycle of E. granulosus depends on carnivores feeding on herbivores bearing hydatid cysts with viable protoscoleces, humans represent usually the dead end for the parasite. On ingestion of E. granulosus eggs, hydatid cysts are formed mostly in liver and lungs, and occasionally in other organs of human body, which are considered as uncommon sites of localization of hydatid cysts [7]. Peritoneal echinococcosis can cause a large variety of specific and complex anatomic lesions. The disseminated form is the most common, and therefore the surgical treatment is challenging in most cases [8]. The primary omental hydatid cyst is very rare. In this case there was a primary torsion omental hydatid cyst which make it rarest rare. Chemotherapy as well operative procedures are generally opted for the treatment of hydatid disease. Apart from open surgical intervention, (PAIR) Percutaneous Aspiration Injection & reaspiration, Laparoscopic hydatid cystectomy is also popularized [9].

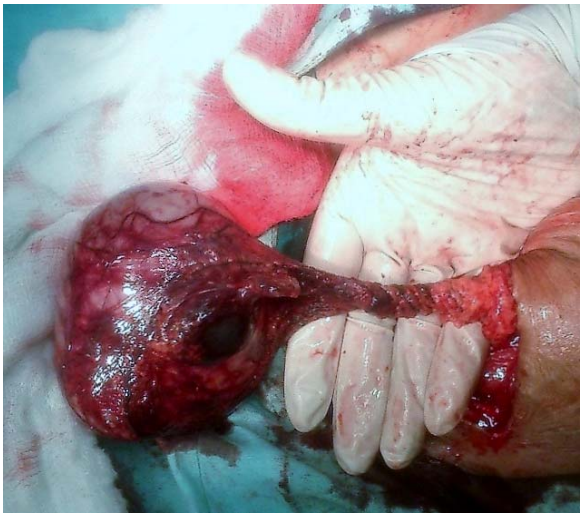

Figure 1: Torsion Omental Hydatid Cyst

The laparoscopic technique is an easy-to-apply, safe, and effective method to conduct liver and spleen hydatid cyst surgery. This technique can be used in patients with unique, small-sized, superficially located cysts, and also has the advantages of other abdominal laparoscopic operations [10]. In this case there were multiple hydatid cyst sand some at difficult anatomical positions therefor we directly went for open surgical intervention. The hydatid disease is a preventable disease. Past and future efforts to reduce transmission of these diseases adopt a One Health approach where control measures are implemented largely in the parasites' animal hosts in order to bring about, indirectly, a reduction in human disease. New and highly effective vaccines have been produced which are capable of preventing infections with Echinococcus granulosus (cystic echinococcosis) in their animal intermediate hosts. Application of vaccines, together with medical therapy in the parasites' definitive hosts, provides new opportunities for control of these diseases and a reduction in the global burden of cystic echinococcosis [11].

CONCLUSION

The primary omental hydatid cyst is a rare variety. In this case it was a life threatening condition for the patient as it was a torsion omental hydatid cyst. When there are multiple intra-abdominal hydatid cysts than open surgical method in the form of total pericystectomy is the best, safe and effective treatment of choice.

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