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Splenic Hydatid Cyst: A Case Report

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Abstract | **Case Report**

Hydatid disease is endemic in our country and present a real public health problem. It can affect any organ, but splenic involvement is exceptional. Treatment is mainly surgical. We report the case of a 44-year-old female patient referred for management of a splenic hydatid cyst discovered with left hypochondrium pain. The CT scan showed a CE2 stage hydatid cyst and the hydatid serology was positive. clinical examination revealed splenomegaly, biology was normal. A total splenectomy was performed and the postoperative course was straightforward. No particularities were noted after a 2-month follow-up.

Keywords: Hydatid cyst, spleen, splenectomy, Echinococcus Granulosus, benzimidazoles.

INTRODUCTION

Hydatidosis or hydatid cyst is an anthropozoonosis caused by the development in humans of the larval form of the taenia Echinococcus granulosus [1]. Splenic localization is rare, accounting for 0.9% to 8% of all human echinococcal infections [2]. Surgery is the standard treatment for this form of hydatidosis based on total splenectomy. Sometimes, partial splenectomy may be an alternative. often combined with benzimidazole-based medical treatment.

MATERIELS AND METHODES

CASE PRESENTATION

Clinical Observations

40-year-old woman with no previous medical history, who has presented abdominal pain in the left hypochondrium and left flank for the past 3 months, with good general condition and no fever. Clinical examination reveals painful splenomegaly on palpation. Abdominal CT scan showed large splenomegaly measuring 21 cm in length, with multiple cystic formations containing daughter vesicles compatible with CE2 stage of hydatid cysts, without signs of cracking or rupture. This splenomegaly has a mass effect on the stomach, the body and the tail of the pancreas which are pushed to the right, makes an impact on the left kidney, and pushes down the left colonic angle. The CT scan did not show any other location, particularly in the liver. The biological tests were normal, except a positive hydatid serology. The patient underwent a left subcostal laparotomy which revealed a large multicystic spleen with adhesions to the stomach, the lateral wall, the diaphragm and the left colonic angle. The dome protruding from the lower pole was resected, its contents aspirated and sterilised, and the septations were collapsed. This reduced the volume of the spleen. After ligation of the splenic pedicle, splenectomy was performed followed by control of haemostasis, lavage and drainage. Post-operative course was straightforward. Pneumococcal and influenza vaccinations were given postoperatively. The patient was discharged on the 6th postoperative day. Albendazole-based treatment was instituted with regular monitoring of liver function. No particularities were noted after a two-month follow-up.

Figure 1: CT scan: spleen hydatid cyst

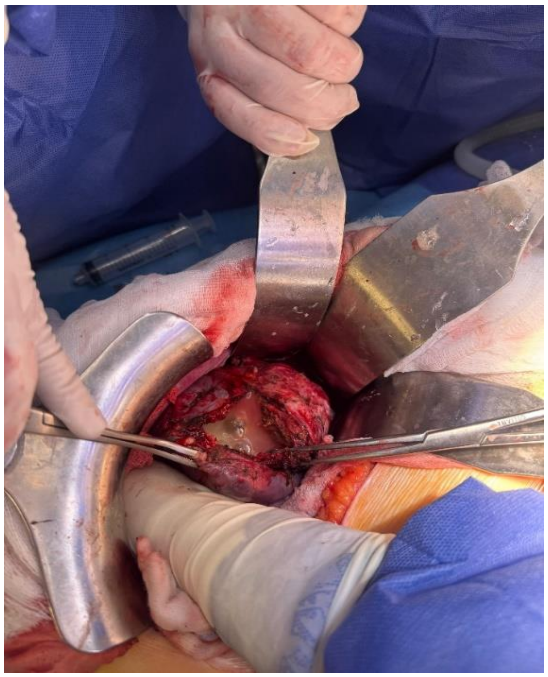

Figure 2: Intra-operative image: Resection of the protruding dome

Figure 3: Splenectomy piece

DISCUSSION

Hydatidosis is a helminthiasis caused by the development in humans of the larval form of Echinococcus granulosus. The definitive host is most often the dog [3]. The intermediate host, contaminated via the digestive tract, is most often sheep and, accidentally, humans [3]. The embryo then crosses the intestinal wall, enters the liver via the portal tract and localises there, or enters the lungs via the vena cava, and then any other organ via the systemic circulation. Hydatid cysts are most often found in the liver and then in the lungs [3]. Splenic involvement ranks 3rd. Other routes of splenic involvement have been suggested: involvement by contiguity (gastric or colonic trans-parietal), the lymphatic route and the retrograde porto-splenic venous route [3, 4]. It is a rare condition outside endemic areas. In Africa, it occurs mainly in the Maghreb countries, notably Tunisia (15.1 cases/100,000 inhabitants/year) [5] and Morocco, where our patient is from (12 cases/100,000 inhabitants/year) [6]. Splenic KH mainly affects adults aged between 30 and 40, with a slight female predominance [4].

The most frequent reasons for consultation are pain, as in the case of our patient, the finding of a mass in the left hypochondrium, and chance discovery. Splenic hydatid cyst can also be discovered during complications such as abscessation, fissuring with anaphylaxis, and rupture in the pleura, stomach, colon or skin [3-5, 7].

Ultrasound, CT and magnetic resonance imaging of the abdomen are the most useful diagnostic tests, showing cystic calcifications, daughter vesicles or intracystic septa [3-5,7,8]. Combined with hydatid serology, these imaging tests can be used to confirm the diagnosis of splenic hydatid cyst [4, 5]. Our patient's CT scan showed splenomegaly with multiple cysts with intracystic daughter vesicles. Hydatid serology was also positive, confirming the diagnosis of splenic hydatid cyst.

However, there may be some diagnostic difficulties with other non-parasitic cysts of the spleen due to their similar clinical and radiological presentation [9, 10].

Medical treatment with benzimidazolic is prescribed for multi-visceral forms, although the results are insufficient [4]. Treatment of splenic hydatid cyst is essentially surgical [4, 5, 9]. Total splenectomy has the advantage of removing the parasitic organ and avoiding secondary recurrence, as in our patient. It can be difficult because of cystovisceral adhesions. Resection of the protruding dome has the advantage of being a benign procedure with little bleeding, which is almost always feasible, if the cyst is exposed on the surface of the spleen. However, it leaves the pericyst in place, which can be the site of a residual cavity and postoperative infection [4]. The surgical approach depends on the location of the splenic hydatid cyst, and whether it is associated with other cystic locations. The laparoscopic approach is feasible in almost all cases, with good short- and long-term results [4, 5, 11].

CONCLUSION

Splenic hydatid cyst is an uncommon localization, even in areas where echinococcosis is endemic. Diagnosis is made on the basis of specific radiological images, particularly CT scans, associated with positive hydatid serology. Treatment is essentially surgical, in particular total splenectomy, sometimes associated with benzimidazoles. Laparoscopy may reduce post-operative morbidity.

Conflicts of Interest: The authors declare no conflict of interest.

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