Research Paper

Volume : 5 | Issue : 6 | June 2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 69.48

Primary Hydatid Cyst of Spleen: A Case Report

Medical Science

KEYWORDS : Echinococcosis, Spleen, Splenectomy.

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ABSTRACT

Primary hydatid disease of the spleen is a rare entity. We present a case of a 14 year old male who presented with pain in left upper abdomen for 6 months. Ultrasonography was suggestive of cystic lesion of spleen. Splenectomy was performed. A specimen of spleen was received and a cyst was identified on cut section. Histopathology revealed hydatid disease of the spleen. This case of primary splenic hydatid cyst is rare and previously sparsely reported condition. It should be considered in the differential diagnosis of cystic lesion of spleen especially in endemic areas.

Introduction: Primary hydatid disease of the spleen is a rare entity. Spleen is the third most common site of involvement by hydatid disease.1 The incidence of splenic involvement ranges from 0.5-4%.2, 3 However, exclusive involvement of spleen is rare with few cases reported in literature.3, 4

Case report: A 14 year old male presented to the surgery OPD with chief complaints of pain in the left upper abdomen for the past 6 months associated with nausea. Patient did not have any other complaints. On examination, spleen was mildly enlarged. Ultrasonography was suggestive of cystic lesion of spleen. Rest of the viscera appeared normal. Other biochemical parameters were within normal limits. Hydatid serology was positive. Patient was immunized pre-operatively for capsulated organisms. Open splenectomy was performed. Perisplenic adhesions were seen perioperatively.

Histopathology: We received a specimen of spleen measuring 12.5 cm x 8.5cm x 8cm. The left margin of the spleen was distorted by the presence of a boggy swelling. On cut section, a unilocular cyst was identified measuring 7cm x 6cm x 6cm which yielded 50ml of serous fluid. The cyst wall showed presence of yellowish-white membranes, sections from which were submitted for histopathological examination. (Figure 1) Microscopy revealed the presence of laminated membranes and parasitic nuclei suggestive of hydatid disease of the spleen. Foreign body giant cell reaction and an inflammatory mononuclear infiltrate were seen at the periphery of the cystic mass with junction of spleen. (Figure 1b, 1c and 1d) Rest of the spleen was unremarkable. Patient was investigated radiologically for the presence of extra-splenic hydatid disease which did not reveal involvement of other organs.

Patient was advised to take T. Albendazole for 4 weeks.

Discussion: Hydatid disease is a zoonosis caused by infection with Echinococcus granulosis, a tapeworm. Liver is the most commonly involved organ followed by lung and spleen.

Infection reaches spleen by the arterial route after passing through the primary filter, i.e. liver and secondary filter, i.e. the lung. Retrograde spread may also occur via the portal and splenic veins.4 Involvement of spleen with sparing of other organs is rare.1 Hydatid cyst consists of three layers- the ectocyst, endocyst and pericyst. The pericyst consists mainly of foreign body giant cell reaction, inflammatory and fibroblastic tissue response against the parasite. The parasitic component is represented by the ectocyst and endocyst.

The differential diagnosis for splenic hydatid cysts includes other splenic cystic lesions such as epidermoid cysts, pseudocysts, splenic abscesses, haematomas and cystic neoplasm of the spleen.5 We have carefully ruled out the above mentioned differential diagnosis and reached the final diagnosis of primary hydatid disease of spleen by means of microscopy and serology. Splenectomy is the primary treatment of choice in such cases as was done in our case.

To conclude, this case of splenic hydatid cyst is rare and previously sparsely reported condition. It should be considered in the differential diagnosis of cystic lesion of spleen especially in endemic areas.

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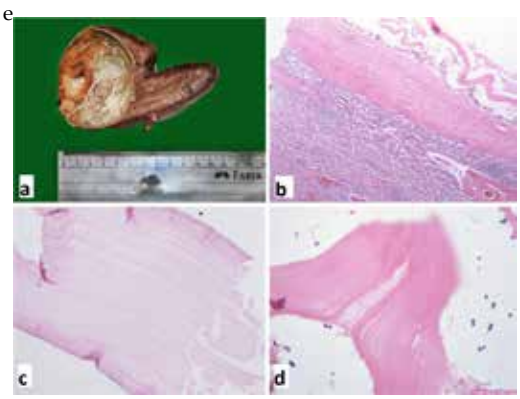

Figure 1 caption: gross and microscopic features- hydatid disease

1a: gross specimen, hydatid cyst of spleen
1b: microscopy showing spleen with hydatid disease, H&E (magnification 40x)
1c: microscopy showing laminated membranes, H&E (magnification 200x)
1d: microscopy showing laminated membranes and parasitic nuclei, H&E (magnification 400x)

References

1. Safioleas M, Misiakos EP, Kakisis J et al. Surgical treatment of human echinococcosis. Int Surg. 2000; 85(4): 358-65.
2. Humphreys WG, Johnston GW. Splenic cysts: a review of 6 cases. Br J Surg. 1979; 66(6): 407-8
3. Uriarte C, Pomares N, Martin M, Conde A, Alonso N, Bueno MG. Splenic hydatidosis. Am J Trop Med Hyg. 1991; 44(4): 420-3.
4. Pukar MM, Pukar SM. Giant solitary hydatid cyst of spleen — A case report. Int J Surg Case Rep. 2013; 4(4): 435–437.
5. Durgun V, Kapan S, Kapan M, Karabiçak I, Aydogan F, Goksoy E. Primary splenic hydatidosis. Dig Surg 2003; 20: 38-41.