Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Surgery

Hydatid Cyst at Unusual Location (Spleen) - A Case Report

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DOI: 10.36347/sjmcr.2024.v12i01.029 | **Received:** 21.12.2023 | **Accepted:** 25.01.2024 | **Published:** 29.01.2024

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Abstract **Case Report**

Echinococcosis or Hydatid disease is a zoonosis endemic in agricultural areas of the world. It is caused by tapeworm of genus Echinococcus excreted in the faeces of infected dogs. Most common site of involvement is liver (50-77%) followed by lungs (18-35%), abdominal cavity and brain. Splenic hydatid cyst is a rare entity constituting 0.5 - 4% of abdominal hydatid disease. We report a case of 62 yrs old female who presented with vague abdominal pain and vomiting. Her abdominal CECT revealed a cystic lesion with peripheral calcified foci at lower pole of spleen. All other investigations were normal except for raised serum echinococcus IgG levels. Splenectomy specimen was received and histopathological examination confirmed it as hydatid cyst. Microscopy showed outer acellular laminated membrane, inner germinal layer with scolices along with eosinophilic inflammatory infiltrate. Patients presenting with hydatid disease are usually asymptomatic or can have vague abdominal pain. The disease is associated with recurrences, fatal anaphylaxis if neglected and high morbidity and mortality, therefore it should be considered as a differential for any cystic mass found in any part of the body.

Keywords: Echinococcosis, Hydatid disease, scoleces, laminated cyst.

INTRODUCTION

Echinococcosis or Hydatid disease is a zoonosis endemic in agricultural areas of the world. It is caused by tapeworm of genus Echinococcus excreted in the faeces of infected dogs. Most common site of involvement is liver (50-77%) followed by lungs (18-35%), abdominal cavity and brain. Splenic hydatid cyst is a rare entity constituting 0.5 - 4% of abdominal hydatid disease.

CASE REPORT

We report a case of 62 yrs old female who presented with vague abdominal pain and vomiting. Her abdominal CECT revealed a cystic lesion measuring 8.7cm x 12.9cmx 9.1 cm with peripheral calcified foci at lower pole of spleen. All other investigations were normal except for raised serum echinococcus IgG levels. Splenectomy specimen was received and histopathological examination confirmed it as hydatid cyst. Microscopy showed outer acellular laminated membrane, inner germinal layer with scolices along with eosinophilic inflammatory infiltrate.

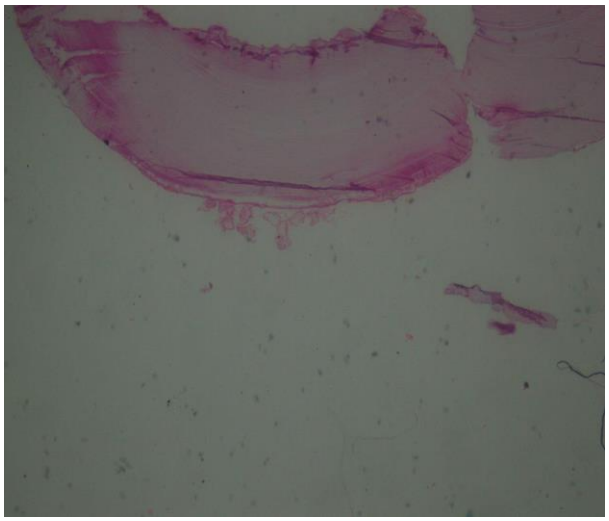

Figure 1: Image shows inner germinal layer and outer laminated cyst wall (H&E 100x)

Figure 2: Inner germinal layer and outer laminated cyst wall (H&E 400x)

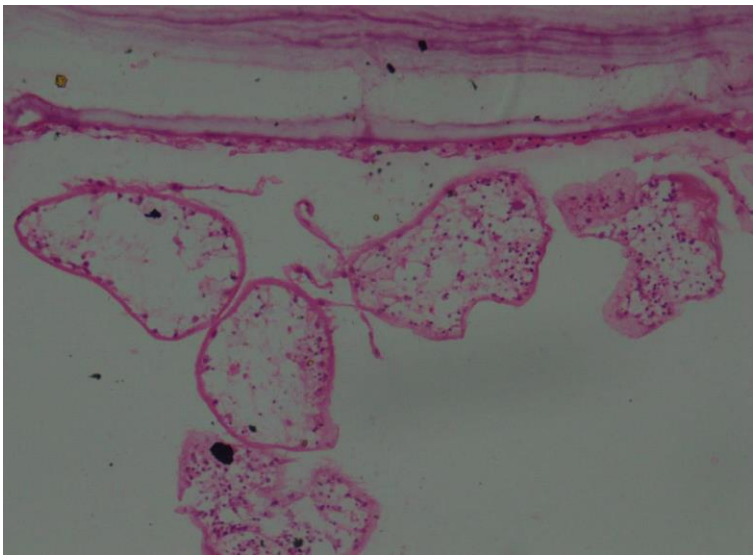

Figure 3: Acellular laminated membrane with scoleces and eosinophilic inflammatory infiltrate (400x)

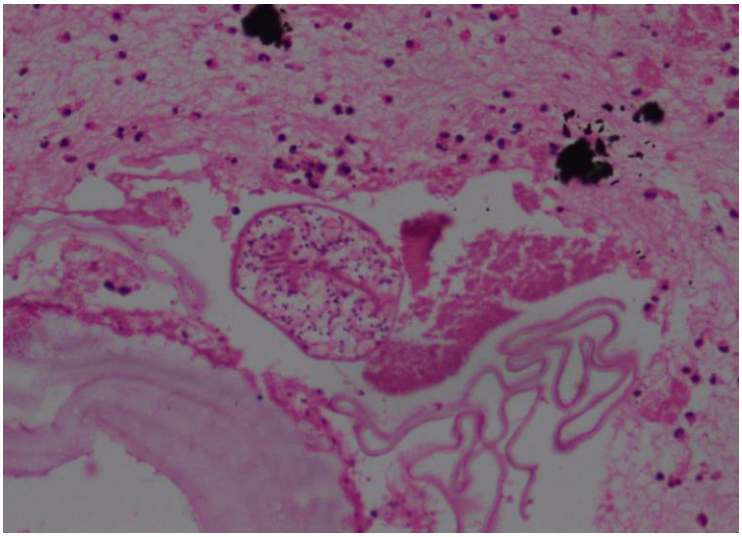

Figure 4: Cyst wall with scolices and inflammatory infiltrate comprising of eosinophils (400x)

DISCUSSION

Hydatid cyst is caused by Echinococcus granulosus. Echinococcus granulosis or the dog tapeworm passes its life cycle in 2 hosts. The adult worms reside in the small intestine of definitive hosts such as dogs and other canines. Eggs passed in the faeces are ingested by intermediate hosts (sheep, goat, cattle) while grazing in the fields. Humans are accidental host and acquire infection via direct contact with infected dog or through faeco-oral route. After gaining entry through the gut, egg hatches and the larval form travels via hematogenous route and can lodge in any organ. The larva develops into a cyst and thus the disease presents with slow growing masses called cysts in different locations of the body.

It is more prevalent in rural and low socioeconomic areas. Overall females are more prone to develop the disease. It is usually asymptommatic but patients can present with abdominal pain, fever, vomiting and mass.

Hydatid cyst consists of three layers. The outermost is pericyst made up of fibrous tissue, middle layer is ectocyst which is laminated, hyaline and acellular membrane and the innermost layer is endocyst which is germinating layer consisting of daughter cyst and brood capsule with scolices.

The differential diagnosis of hydatid cyst includes other splenic cystic lesions, such as simple cyst, abscess, hematoma and cystic neoplasm.

CONCLUSION

Patients presenting with hydatid disease are usually asymptomatic or can have vague abdominal pain. The disease is associated with recurrences, fatal anaphylaxis if neglected and high morbidity and mortality, therefore it should be considered as a differential for any cystic mass found in any part of the body.

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