Original Research Paper

Volume - 15 | Issue - 04 | April - 2025 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

General Surgery

PRIMARY SPLENIC HYDATID CYST: A RARE CASE REPORT

Dr. Riya Doshi — 3rd Year Resident, General Surgery, GCS Medical College, Hospital and Research Centre, Ahmedabad.

Dr. Esha Bansal — Assistant Professor, General Surgery, GCS Medical College, Hospital and Research Centre, Ahmedabad.

ABSTRACT Hydatid disease is a zoonotic infection which is caused by *Echinococcus granulosus*, primarily affecting the liver as well as lungs. However, primary splenic hydatid cysts (SHD) are rare, with the global incidence of around 0.5–4%. This case highlights an unusual presentation and the surgical management of a splenic hydatid cyst. A 32-year-old male presented with a progressively enlarging lump on the left hypochondrium for one month. Imaging studies revealed a large splenic cyst with internal septations. The patient underwent total splenectomy, and the histopathology confirmed *Echinococcus granulosus* infection. Postoperative recovery was uneventful, and albendazole therapy was administered to reduce the recurrence risk. Splenic hydatid cysts are often diagnosed incidentally because of their asymptomatic nature. Contrast-enhanced computed tomography (CECT) remains the gold standard for diagnosis. Surgical management are preferred treatment, with total splenectomy recommended for large cysts complications and prevent recurrence. Early intervention, along with the preoperative albendazole therapy and postoperative follow-up, is crucial in ensuring optimal patient outcomes.

KEYWORDS : Hydatid cyst, Spleen, Echinococcus granulosus, Splenectomy, Abdominal hydatid disease

INTRODUCTION

Hydatid disease is parasitic infection caused **by Echinococcus granulosus**.It is endemic in regions such as the Middle East, India, and South America. The liver and the lungs are the most commonly affected organs, whereas primary splenic involvement is rare, accounting for only 0.5–4% of abdominal hydatid cases.

Splenic hydatid cysts (SHD) are often diagnosed incidentally because of their slow-growing nature and nonspecific symptoms. Imaging modalities such as ultrasonography (USG) and contrast-enhanced computed tomography (CECT) are essential in confirming the diagnosis. Although medical therapy with albendazole can reduce cyst viability, surgery remains the definitive treatment.

Presentation Of Case

A 32-year-old male presented with complaints of a progressively enlarging lump in the left hypochondrium for one month. The patient had no significant medical history, prior surgeries, or known exposure to infected animals.

On physical examination, a firm, non-pulsatile, non-tender mass measuring approximately 8×7 cm was palpated in the left upper quadrant. Routine laboratory investigations, including complete blood count and liver function tests, were within their normal limits.

Imaging studies were performed to evaluate the lesion. USG revealed a well-defined cystic lesion measuring 23×15 cm with internal septations. CECT confirmed a 19×15 cm cystic lesion within the splenic parenchyma, causing mass effect on adjacent structures but without signs of rupture.

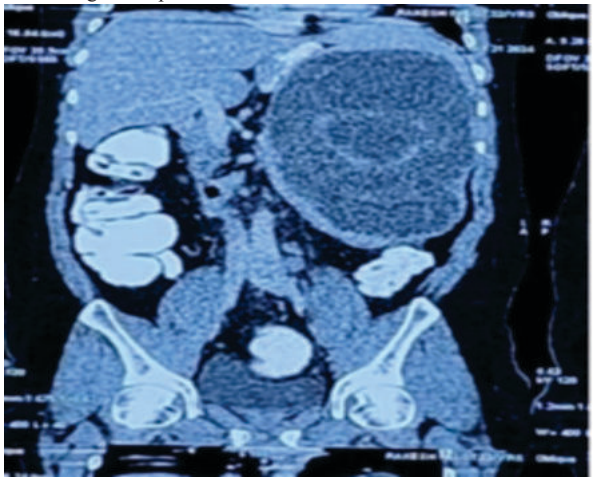

Fig.1 CECT Abdomen (Axial View)

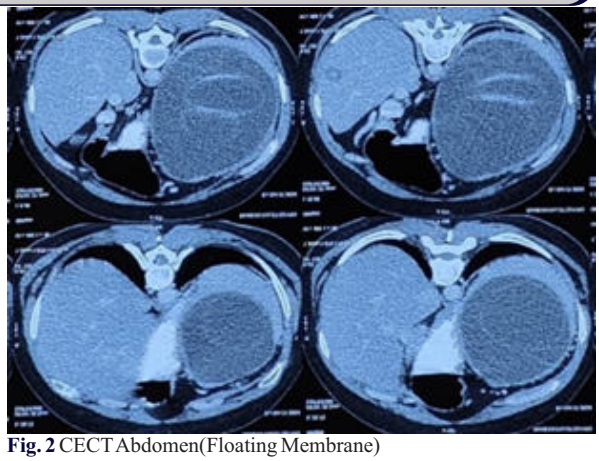

Fig. 2 CECT Abdomen(Floating Membrane)

Management And Treatment

To reduce the cyst viability and prevent intraoperative complications, the patient was started on albendazole therapy (15 mg/kg/day) for two weeks before surgery. Additionally, vaccinations against pneumococcus, **Haemophilus influenzae**, and meningococcus were administered.

The patient underwent a total splenectomy under general anesthesia. Intraoperatively, the spleen was found to be significantly enlarged with a large hydatid cyst occupying most of the parenchyma. Surgical excision was performed carefully to avoid intraoperative spillage of cyst contents, which could lead to the secondary peritoneal hydatidosis

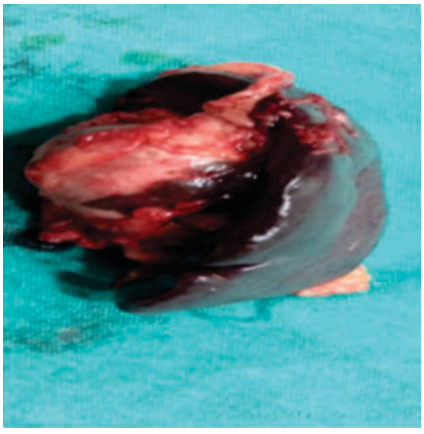

Figure-3 Excised Spleen Along With Hydatid Cyst

Postoperative Course

Histopathological examination of the excised spleen confirmed *Echinococcus granulosus* infection, with characteristic laminated membranes and daughter cysts. The patient had an uneventful postoperative recovery and was discharged in postoperative day seven. Albendazole therapy was continued for four weeks postoperatively to minimize recurrence risk. Follow-up imaging at six months showed no evidence of disease recurrence.

DISCUSSION

Splenic hydatid disease is a rare but significant manifestation of Echinococcus granulosus infection. The primary mode of infection is thought to be hematogenous dissemination from the liver, though in some of the cases, the spleen can be a primary site of involvement .

The clinical presentation varies widely, with some cases being the asymptomatic while others present with left upper quadrant pain or palpable mass. Complications such as cyst rupture, secondary infection, or hypersensitivity reactions can occur if left untreated. Imaging studies, particularly CECT, are crucial in confirming the diagnosis and differentiating hydatid cysts from other splenic cystic lesions.

Surgical excision remains the treatment of choice. While spleen-preserving procedures like partial splenectomy may also be considered for small peripheral cysts, total splenectomy is recommended for large or centrally located cysts due to the risk of recurrence and intraoperative spillage. Laparoscopic approaches have been explored but remain controversial due to the risk of peritoneal dissemination.

CONCLUSION

Primary splenic hydatid cysts are rare, and diagnosis often requires a high index of suspicion, especially in the endemic areas. Imaging studies such as CECT are essential for accurate diagnosis. Although medical therapy with albendazole can help reduce cyst viability, surgical removal remains the mainstay of treatment, with total splenectomy being the preferred approach for large or complicated cysts.

Preoperative antiparasitic therapy and postoperative follow-up play a crucial role in preventing recurrence. Early diagnosis and surgical intervention are essential for optimizing patient outcomes.

REFERENCES

1. Eckert J, Deplazes P. Biological, epidemiological, and clinical aspects of echinococcosis: a zoonosis of increasing concern. *Clin Microbiol Rev.* 2004;17(1):107-135. doi:10.1128/CMR.17.1.107-135.2004.
2. Moro P, Schantz PM. Echinococcosis: a review. *Int J Infect Dis.* 2009;13(2):125-133. doi:10.1016/j.ijid.2008.03.037.
3. Pedrosa I, Saíz A, Arrazola J, Ferreirós J, Pedrosa CS. Hydatid disease: radiologic and pathologic features and complications. *Radiographics.* 2000;20(3):795-817. doi:10.1148/radiographics.20.3.g00ma06795.
4. Akhan O, Koroglu M. Hydatid disease of the spleen. *Semin Ultrasound CT MR.* 2007;28(1):28-34. doi:10.1053/j.sult.2006.10.006.
5. Safioleas M, Moustafellos P, Stamatakos M, et al. Surgical treatment for splenic hydatidosis. *World J Surg.* 2006;30(10):1939-1944. doi:10.1007/s00268-006-0002-5.