Journal of Surgical Radiology

Site: https://journalsurgrad.com/

ISSN Print 2156-213X| ISSN Online: 2156-4566 Volume: 05 Issue: 06 Open Access

Research Article

Pulsatile Hydatid Cyst in Left Lobe of Liver- An Uncommon Phenomenon

Parveen Malhotra[1], Vani Malhotra[2], Ankit Chahal[3], Rahul Siwach[4], Pranav Malhotra[5], Aakansha[6]

[1] Department of Medical Gastroenterology, Obstetrics & Gynecology, Psychiatry, HealthMap Diagnostics Pvt. Limited, PGIMS, Rohtak, Haryana, India

*Corresponding Author
Parveen Malhotra,

Article History
Received: 02.05.2026
Revised: 12.05.2026
Accepted: 28.05.2026
Published: 09.06.2026

Citations:
Malhotra, P., Malhotra, V., Chahal, A., Siwach, R., Malhotra, P., & Aakansha. (Year). Pulsatile hydatid cyst in left lobe of liver: An uncommon phenomenon. J Surg Radiol, V5(6) 204-206

Abstract: ***Introduction:*** Hydatid cysts of the liver, caused by the parasite Echinococcus granulosus, typically present as slow-growing, often asymptomatic, fluid-filled sacs in the liver (50-70% of cases). Case reports show patients often present with right upper quadrant abdominal pain, nausea, and fever due to compression or infection. Diagnosis is confirmed via CT or ultrasound, and treatment usually involves albendazole therapy and surgical intervention (e.g., pericystectomy or cystectomy).**Case Report:** A 35-year-old female, not a known case of any chronic illness presented with complaints of a mass in epigastric area for last three months. It was insidious in onset and gradually progressive and was associated with a localized, dull aching pain at the site of the mass for last two weeks which was insidious in onset with no exaggerating or relieving factors and was non-radiating in nature. The patient also complained of non-ulcer dyspepsia, vomiting and weight loss for last one month. The family history and past medical or surgical history was non-contributory. On inspection, the abdomen appeared distended with no visible mass or pulsations. On palpation, there was palpable mass in epigastric area, extending into left hypochondrium, it was pulsatile and was able to lift the palpating hand with each aortic pulsation. There was no local rise in temperature but it was slightly ender in the right. It measured 6 cm × 4 cm and moved with respiration. It was cystic in consistency with a smooth surface and was non-reducible. On percussion, a dull note was elicited over the mass and there was no evidence of shifting dullness. On auscultation, normal bowel sounds were heard in all quadrants of the abdomen. The ultrasonogram showed a large cystic lesion in left lobe which was suggestive of hydatid cyst. The contrast enhanced computed tomography scan was done which confirmed the findings of ultrasonogram abdomen. Patient was treated with albendazole therapy for two weeks by some private practitioner but in view of left lobe involvement with more than 5 cm size and non-responsive to albendazole therapy, patient was referred for surgical consultation and was lost to follow-up.**Conclusion:** Hydatid cyst is no uncommon disease but atypical location like in left lobe with size more than 5 cm with pulsatile nature warrants timely surgical intervention, so as to prevent rupture and its complications like peritonitis, cholangitis, sepsis and muti organ failure.

Keywords: Echinococcus granulosus, Hydatid Cyst, Peritonitis, Albendazole, PAIR

INTRODUCTION

Hydatid cyst is caused due to tapeworm infection which effects liver, lungs, brain, heart and bones.[1-4] Humans are accidental, intermediate hosts and get infection from ingestion of infected eggs of the parasite. Once, these cysts rupture, it leads to infection cascade which subsequently lead to the development of an abscess causing complications like peritonitis. [5-6] The hydatic cyst is mainly found in the liver (75% of the cases), being asymptomatic in majority and discovered accidentally on a routine abdominal ultrasound or an ultrasound performed for diagnosing other pathologies. The hepatic hydatid cyst therapy is multimodal, including medical, surgical, and, lately, minimally invasive techniques. [7] Hydatid cyst in liver usually occur in right lobe [8-9] and are non-pulsatile but in our case, it was in left lobe and pulsatile. In such situation, usually surgical option is the best option of treatment. Liver hydatid cysts (LHCs), left untreated grow and follow one of several courses: develop fistulae with adjacent organs or the biliary system, rupture into the peritoneal cavity seeding daughter cysts, and develop daughter cysts within or rarely die. [10]

Case Report

A 35-year-old female, not a known case of any chronic illness presented with complaints of a mass in epigastric area for last three months. It was insidious in onset and gradually progressive and was associated with a localized, dull aching pain at the site of the mass for last two weeks which was insidious in onset with no exaggerating or relieving factors and was non-radiating in nature. The patient also complained of non-ulcer dyspepsia, vomiting and weight loss for last one month. The family history and past medical or surgical history was non-contributory. On inspection, the abdomen appeared distended with no visible mass or pulsations. On palpation, there was palpable mass in epigastric area, extending into left hypochondrium, it was pulsatile and was able to lift the palpating hand with each aortic

pulsation. There was no local rise in temperature but it was slightly ender in the right. It measured 6 cm × 4 cm and moved with respiration. It was cystic in consistency with a smooth surface and was non-reducible. On percussion, a dull note was elicited over the mass and there was no evidence of shifting dullness. On auscultation, normal bowel sounds were heard in all quadrants of the abdomen. The ultrasonogram showed a large cystic lesion in left lobe which was suggestive of hydatid cyst. The contrast enhanced computed tomography scan was done which confirmed the findings of ultrasonogram abdomen. All her biochemical labs and viral screen were normal, except for complete hemogram which showed mild leucocytosis, eosinophilia and raised erythrocyte sedimentation rate (ESR). Patient was treated with albendazole therapy for two weeks by some private practitioner but in view of left lobe involvement with more than 5 cm size and non-responsive to albendazole therapy, patient was referred for surgical consultation and was lost to follow-up.

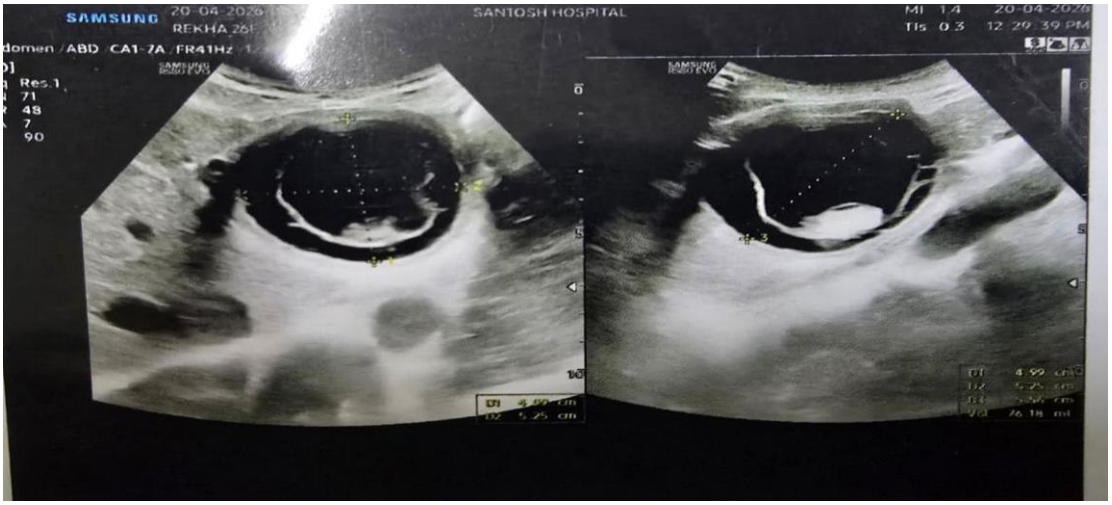

Figure 1- Ultrasonogram abdomen showing Hydatid cyst in left lobe of liver

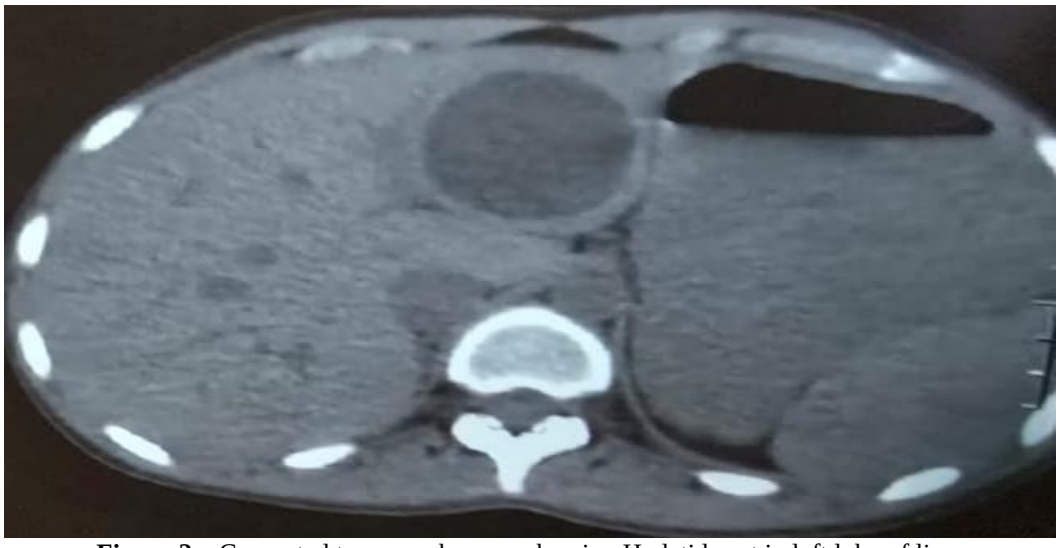

Figure 2 – Computed tomography scan showing Hydatid cyst in left lobe of liver

DISCUSSION

Our case report is different in few aspects. First one is localization in left lobe which is uncommon, as hydatid cysts are frequently encountered in right lobe. While most hydatid cysts occur in the right lobe, left lobe cysts (about 20% of cases) can be large and cause significant mass effects. Second unique thing was its pulsatility, as hydatid cyst are usually non-pulsatile. A left lobe liver hydatid cyst can be pulsatile, although this is unusual and typically indicates a specific, severe complication rather than a common feature of the disease. Pulsation usually results from the cyst being located close to or, in rare cases, invading major vascular structures like the inferior vena cava (IVC) or aorta, transmitting the pulse. The pulse is generally transmitted from a nearby major artery or an invasion of the vessel wall, rather than the cyst itself being intrinsically vascular. A pulsatile cyst in the abdomen requires careful imaging (such as Contrast-

Enhanced CT) to differentiate it from an aortic aneurysm or other vascular lesions. Treatment for left lobe liver hydatid cysts typically involves a combination of antiparasitic medication (albendazole) and surgical intervention, with laparoscopic techniques now preferred for their lower morbidity and faster recovery. For smaller or suitable cysts, PAIR (puncture, aspiration, injection, re-aspiration) is an effective minimally invasive alternative, while larger or complex left-lobe cysts may require surgical excision.

CONCLUSION

Hydatid cyst is no uncommon disease but atypical location like in left lobe with size more than 5 cm with pulsatile nature warrants timely surgical intervention, so as to prevent rupture and its complications like peritonitis, cholangitis, sepsis and muti organ failure.

CONFLICT OF INTEREST- The authors declare that there was no conflict of interest and proper written consent was taken from the patients. Moreover, no financial support was taken for the same.

REFERENCES

1. Talha Ahmed, Deepika C.A., Rahul R. Bhat, Sumith Marian Colaco, Yogesh Kumar, An alluring case of an infected hepatic hydatid cyst: A case report, International Journal of Surgery Case Reports, Volume 130, 2025, 111339, ISSN 2210-2612, https://doi.org/10.1016/j.ijscr.2025.111339.
2. S. Gautam, P.L. Patil, R. Sharma, et al. Simultaneous multiple organ involvement with hydatid cyst: left lung, liver and pelvic cavity. BMJ Case Rep. CP, 14 (2021), Article e241094
3. L.C. Padayachy, M.M. Ozek. Hydatid disease of the brain and spine Childs Nerv. Syst., 39 (3) (Mar 2023), pp. 751-758
4. H. Noaman, S. Rawaf, A. Majeed, A.M. Salmasi. Hydatid cyst of the heart. Angiology, 68 (9) (Oct 2017), pp. 765-768
5. I.N. Hakyemez, M. Sit, G. Aktas, et al. A case of giant hepatic hydatid cyst infected with Morganella morganii and the literature review. Case Rep. Gastrointest. Med., 2012 (2012), Article 591561
6. H.M. Magacha, V. Vedantam, N. Vedantam, A. Jagadish. Liver hydatid cyst masquerading as a liver abscess Cureus, 15 (1) (Jan 29 2023), Article e34334
7. Botezatu C, Mastalier B, Patrascu T. Hepatic hydatid cyst - diagnose and treatment algorithm. J Med Life. 2018 Jul-Sep;11(3):203-209. doi: 10.25122/jml-2018-0045. Erratum in: J Med Life. 2018 Oct-Dec;11(4):394. PMID: 30364592; PMCID: PMC6197524.
8. Huizinga W.K.J., Grant C.S., Daar A.S. Hydatid disease. In: Morris P.J., Wood W.C., editors. Oxford Textbook of Surgery. 2nd ed. Oxford University Press; New York, NY: 2000. pp. 3298–3305.
9. King C.H. Cestodes (tapeworms) In: Mandell G.L., Bennett J.E., Dolin R., editors. Principles and Practice of Infectious Diseases. 4th ed. Churchill Livingstone; New York, NY: 1995. pp. 2544–2553.
10. Kammerer W.S., Schantz P.M. Echinococcal disease. Infect Dis Clin North Am. 1993; 7:605–618.