EJMR
ERA'S JOURNAL OF MEDICAL RESEARCH
p-ISSN: 2348-9839, e-ISSN: 2394-5222 | www.ejmr.org

Volume 13 Issue 1
CASE REPORT

Multiple Disseminated Hydatid Cysts Involving Liver, Retroperitoneum and Uterus: A Rare Case Report

Md Ibrahim, Nishi Tandon, Andleeb Zehra, Farheen Khan, Nirupma Lal

Received on: 28-03-2026 Published on: 30-04-2026

ABSTRACT

Background: Hydatid disease is a helminthic illness carried and transmitted from animals to humans and between humans and caused by the cestode Echinococcus granulosus. The liver and lungs are the primary sites of infection, and thus are most commonly affected, and are hence the most vulnerable. The disease is very uncommon and of a somewhat peculiar clinical type with widely disseminated and multifocal infiltration of the abdominal viscera; little is known for its appearance as a manifestation in the uterus.

Case Presentation: The present case concerns a 46-year-old woman who had suffered for almost two and a half decades from an enigmatic clinical history consisting of recurrent attacks of abdominal pain of unknown etiopathogenic origin. She did not have any other significant co-pathologies or significant past disease on the list that would be clinically relevant for presentation besides the one mentioned above. However, a special pattern of abnormalities was found, with numerous distinctive, fluid-filled cysts scattered throughout the right liver lobe (segments V and VI), the right iliac area and right lumbar area, and the uterus, by abdominal ultrasonography.

In sum, it is a clinical and pathological constellation that could be interpreted as no longer any question: this is disseminated hydatid disease with multifocal involvement of different anatomical territories of the corporal scan. She was then taken to the operating room and a detailed removal of the cystic lesions was performed at the same time as a vaginal hysterectomy. An extensive and detailed histopathological examination was carried out on specimens of the cystic wall which were taken from the hepatic, retroperitoneal and uterine areas; the pathologist was able to make an absolute diagnosis and absolute diagnostic certitude.

The cysts were all the classic trilaminate pattern characteristic of this type of entity with a dense outer granulation tissue (pericyst) directly derived from host tissue, a laminated acellular chitinous outer cyst (ectocyst) and a delicate inner lining of flattened germinative cells (endocyst). The endometrium exhibited benign cystic hyperplasia and cervix benign features of chronic cervicitis with nabothian cysts. Serology for echinococcosis was not performed. The patient was started on albendazole after surgery and recovered without complications.

Conclusion: We describe an unusual case in which hydatid disease involved not only the liver and retroperitoneum but also the uterus — a site that is rarely implicated. This case underscores the need to consider disseminated hydatidosis when evaluating multifocal cystic lesions, particularly in regions where the parasite is endemic.

KEYWORDS: *Hydatid cyst; Echinococcus granulosus; Disseminated hydatid disease; Uterine hydatid cyst; Histopathology*

Era's Journal of Medical Research. 13(1);2026 [doi: 10.24041/ejmr.2026.20]

INTRODUCTION

Hydatid disease stemming from the larval stage of Echinococcus granulosus, remains a significant public-health concern in endemic regions, such as India,1 despite efforts to control it. The liver is the primary site of infection, with the lungs being affected subsequently.2 Extrahepatic involvement is rare and typically due to systemic dissemination.3 Disseminated hydatid disease is characterized by the presence of cysts. Due to nonspecific clinical presentation and overlapping radiological features with other cystic lesions, diagnosis is often established only after histopathological examination,[4] We report a rare case of multiple disseminated hydatid cysts involving the liver, retroperitoneum, and uterus in a middle-aged female.

CASE PRESENTATION

The 46-year-old female patient presented with a protracted history of episodic abdominal pain spanning approximately 25-years, characterized by gradual onset, episodic bouts, and absence of radiation. She denied fever, unintentional weight loss, changes in bowel habits, or urinary symptoms. There was no past medical history of tuberculosis, diabetes mellitus, or hypertension. Ultrasonography of the entire abdomen showed multiple well-defined, rounded, multicystic anechoic lesions.Definitive excision of the cystic lesions was performed along with vaginal hysterectomy. Multiple specimens were submitted for histopathological

Department of Pathology, Era's Lucknow Medical College and Hospital, Era University, Lucknow, UP, India - 226003
Corresponding Author: Farheen Khan
Email: farheen3333khan@gmail.com
How to cite: Ibrahim M, Tandon N, Zehra A, Khan F, Lal N, Ahmad S. Multiple Disseminated Hydatid Cysts Involving Liver, Retroperitoneum and Uterus: A Rare Case Report. Era J Med Res. 2026;13(1):99-101.

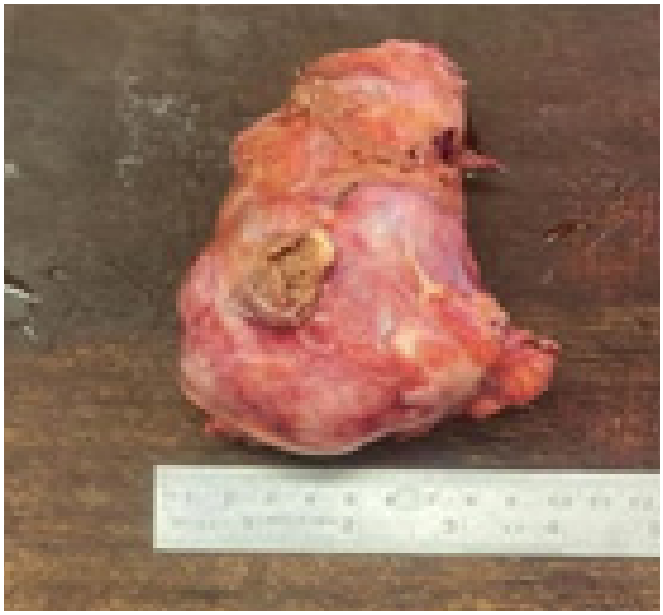

Figure 1: Gross Picture of excised specimen of uterus.

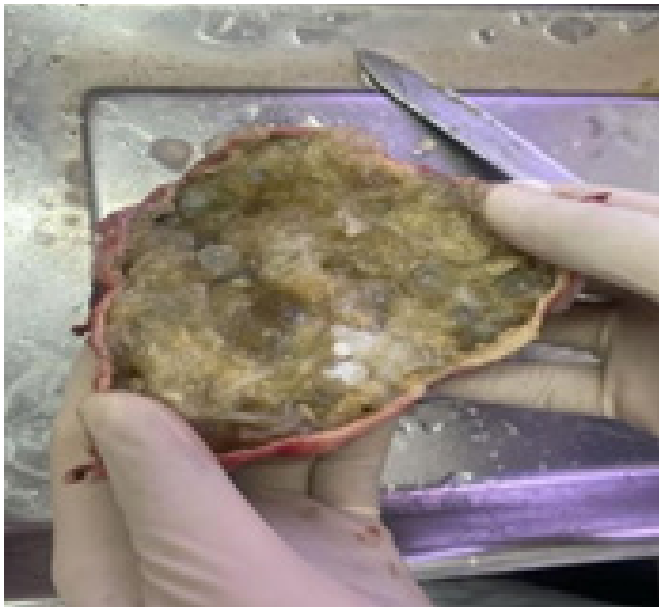

Figure 2: Cut section of cyst.

examination, including cyst walls from the liver, right iliac fossa, right lumbar region, uterus, and cervix.

Gross examination revealed thin-walled, gray-white to gray-brown soft tissue pieces

Microscopic examination of sections from the liver, retroperitoneal regions, and uterine cyst wall showed characteristic features of hydatid cyst, including an outer pericyst composed of granulation tissue with blood vessels, fibroblasts, and inflammatory infiltrate, a laminated acellular chitinous ectocyst, and an inner endocyst lined by flattened cells with clear cytoplasm and central nuclei. Sections from the endometrium revealed benign cystic hyperplasia, while the myometrium was unremarkable. The cervix showed features of chronic cervicitis with Nabothian follicular cysts. Serological testing for hydatid disease was not performed. Postoperatively, the patient was treated with albendazole and had an uneventful follow-up.

DISCUSSION

The liver and lungs constitute the predominant organs involved in hydatid disease, reflecting the typical pattern of parasitic dissemination, while dissemination to multiple intra-abdominal sites is rare.[5] Dissemination may occur due to spontaneous rupture, surgical spillage, or hematogenous spread.[6] In the present case, long-standing disease with involvement of the liver, retroperitoneum, and uterus suggests chronic dissemination.

Primary uterine hydatid cyst is extremely uncommon and may mimic ovarian cysts, fibroids, or other gynecological pathologies.[8,10] The clinical signs are not distinctive, and a late diagnosis may be made. Radiological imaging is an indispensable adjunct in the armamentarium of the diagnosis, but a definitive diagnosis is unconditionally dependent on careful histopathological examination.[7]

The marrow structure of the hydatid cyst is exactly what is known as 'trilaminar': the outermost layer, the 'pericyst' is a densely fibrocollagenous, host-derived reactive capsule, stimulated as an immunoinflammatory reaction/response following the parasite's invasion and encroachment. Underneath is the extra cellular (ectocyst) laminated, chitinous-layered membrane formed by the parasite itself which gives the cyst its extremely beautiful appearance on haematoxylin and eosin stains. The true biological activity is localised in the innermost germinal layer (endocyst), from which daughter cysts, brood capsules and scolices will develop. For us, all three layers were clearly demonstrated at each of the sites involved.

The single definitive principle in therapeutic management is complete surgical removal of the lesion and the use of Albendazole prior to, and following surgery is a standard practice to reduce the risk of postoperative recurrence, to effect clearance of any residual protoscolices.9 Failure to quickly and judiciously initiate a diagnostic process or to reach a definitive diagnosis may follow an unavoidable path towards devastating clinical after effects. The many well-documented complications include the rupture of cysts, fulminant anaphylaxis and secondary dissemination due to “seeding” by parasites, all of which have the potential to cause severe and life-threatening morbidity or progress into a disseminated disease with scant therapeutic options, where common treatments are notoriously ineffective.

CONCLUSION

Some of the features in this remarkable case vividly demonstrate the protean, elusive, and sometimes capricious clinicopathological appearances of the hydatid disease; the occasional anatomical site of otherworldly aberration

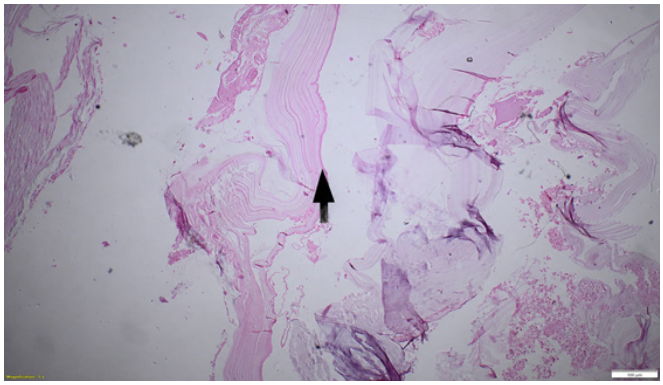

Figure 3: Low-power view of uterine hydatid cyst showing the characteristic laminated ectocyst and inner endocyst lining composed of flattened cells (Hematoxylin and Eosin stain, ×4).

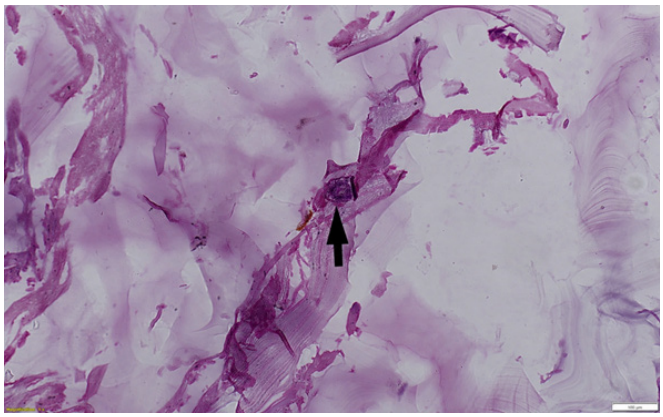

Figure 5: Photomicrograph showing scolices（hydatid sand of multiple hydatid cysts with hooklets.(Hematoxylin and Eosin stain, ×10).

and extraordinary rarity, like the uterus. In the setting of a majority of clinicians and pathologists working in endemic areas or looking at patients who come from the endemic areas with multi-focal cystic disease of the abdomen and pelvis, disseminated echinococcosis should always be an important and appropriate differential diagnosis for patients. While histopathological evidence is still the sine qua non for complete diagnostic resolution, careful surgical removal, combined with pharmacologic treatment with anti-helminthics, holds the most promising treatment prognosis and the most reliable chances of achieving permanent cure.

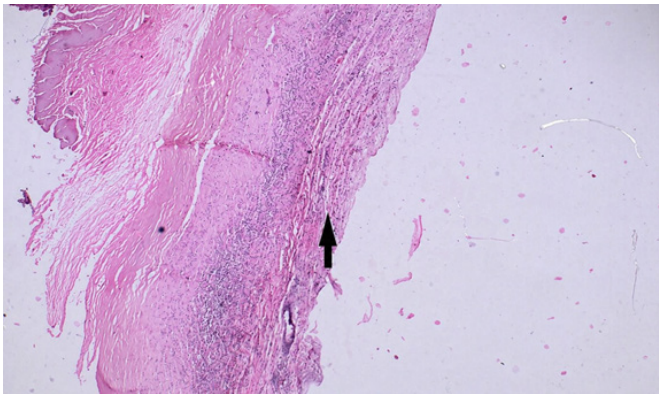

Figure 4: Photomicrograph of uterine hydatid cyst showing a laminated acellular chitinous ectocyst with adjacent host tissue reaction (Hematoxylin and Eosin stain ×10).

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.
2. McManus DP, Zhang W, Li J, Bartley PB. Echinococcosis. *Lancet*. 2003;362(9392):1295–1304.
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.
4. Moro P, Schantz PM. Echinococcosis: a review. *Int J Infect Dis*. 2009;13(2):125–133.
5. Beggs I. The radiology of hydatid disease. *AJR Am J Roentgenol*. 1985;145(3):639–648.
6. Sayek I, Onat D. Diagnosis and treatment of uncomplicated hydatid cyst of the liver. *World J Surg*. 2001;25(1):21–27.
7. Polat P, Kantarci M, Alper F, et al. Hydatid disease from head to toe. *Radiographics*. 2003;23(2):475–494.
8. Safioleas M, Stamatakos M, Safioleas P, et al. Primary hydatid disease of the uterus: a rare clinical entity. *Int J Gynecol Cancer*. 2006;16(3):1191–1193.
9. Gupta N, Javed A, Puri SK, et al. Extrahepatic hydatid disease: a review of uncommon locations. *Trop Parasitol*. 2012;2(1):3–9.
10. Sharma D, Pathak S, Agarwal S, Mathur RK. Primary hydatid cyst of uterus: a rare case report. *J Obstet Gynaecol India*. 2011;61(2):204–205.

Orcid ID:

Md Ibrahim - https://orcid.org/0009-0001-9860-9476
Nishi Tandon - https://orcid.org/0000-0002-3710-2743
Andleeb Zehra - https://orcid.org/0000-0002-7547-0360
Farheen Khan - https://orcid.org/0009-0002-9648-5761
Nirupma Lal - https://orcid.org/0000-0001-9615-5426
Sharique Ahmad - https://orcid.org/0000-0002-9637-8838