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Multiple Intra-Abdominal Hydatid Cysts: An Uncommon Clinical Entity

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Abstract: Hydatid disease, caused by Echinococcus granulosus [1], remains a significant parasitic concern in endemic regions. While the liver and lungs are the most frequently affected organs, multiple hydatid cysts involving diverse intra-abdominal locations are exceedingly rare. We describe a case involving multiple cysts in the liver, mesentery, and pelvis in a middle-aged female. The diagnosis was established through radiological imaging. Surgical intervention was successful, followed by antiparasitic therapy [4]. This report emphasizes the importance of clinical vigilance, comprehensive imaging, and a multidisciplinary approach in managing complex hydatid disease presentations.

Keywords: *Hydatid Cyst, Echinococcus Granulosus, Intra-Abdominal Cysts, Cystic Echinococcosis, Abdominal Surgery.*

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I. INTRODUCTION

Cystic echinococcosis, a zoonotic infection due to Echinococcus granulosus, typically manifests with cyst development in the liver and lungs. The disease can remain asymptomatic for years, with incidental detection becoming more frequent due to improved imaging modalities. Rarely, multiple cysts can simultaneously involve various intra-abdominal sites, leading to diagnostic dilemmas and therapeutic complexity [2]. These atypical presentations can mimic neoplastic or other infectious conditions, making accurate diagnosis critical. This case illustrates an unusual dissemination pattern and underscores the need for heightened suspicion, especially in endemic areas [3].

- *Case Presentation:*

A 34-year-old female presented with vague abdominal pain persisting for two months. Clinical examination revealed hepatosplenomegaly, which was subsequently confirmed radiologically. Imaging showed multiple multiseptated cystic lesions involving the liver, spleen, mesentery, intraperitoneal cavity, pelvis (anterior to the uterus and left ovary), and the anterior abdominal wall on the left side, suggestive of multiple hydatid cysts.

- *Pre-Operative Optimization:*

Following preoperative optimization and administration of presplenectomy vaccinations, the patient was scheduled for surgical intervention.

- *Surgical Procedure:*

Upon abdominal exploration, marsupialization with omentopexy was performed for the hydatid cyst located on the anterior surface of the liver. Multiple posterior liver hydatid cysts were deroofed. Pericystectomy was carried out for cysts located in the omentum and along the left lateral peritoneum and the anterior abdominal wall. Deroofing of bilateral hydatid cysts adjacent to the urinary bladder was also performed, followed by double-layer closure of a bladder rent. A splenectomy was completed, and the abdomen was closed in anatomical layers.

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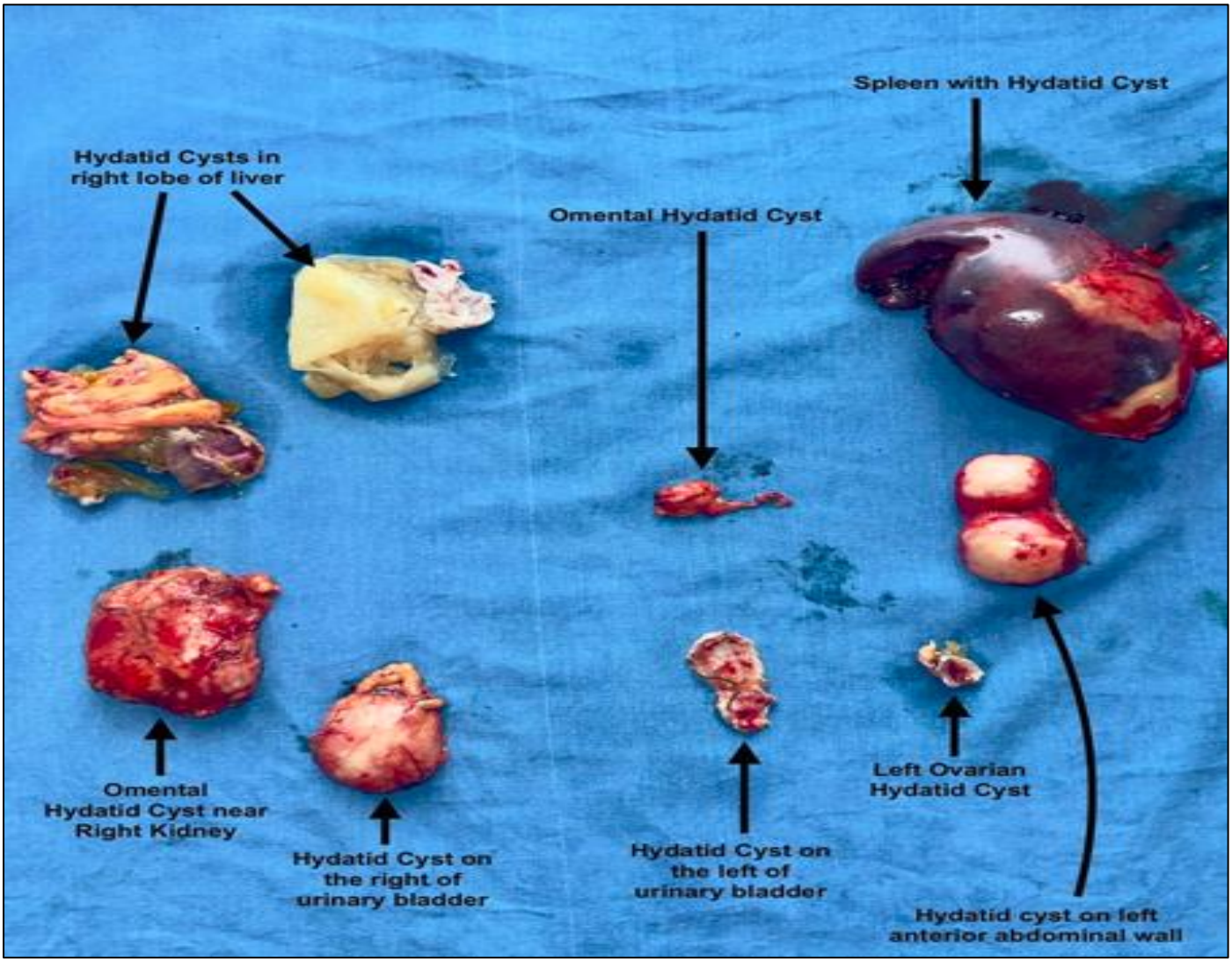

Fig 1 Hydatid Cysts Extracted from Different Locations of the Patient's Abdomen

Fig 2 Intra-op Picture of Hydatid Cyst from Anterior Abdominal Wall.

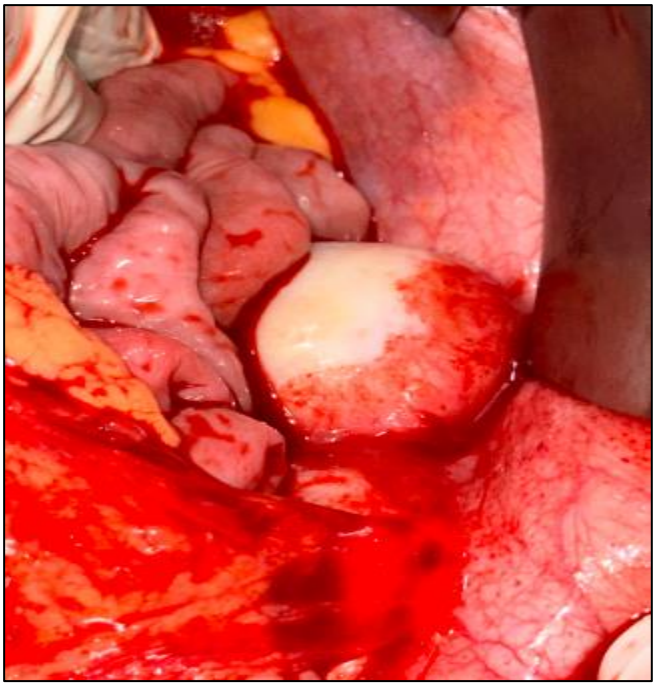

Fig 3 Intra-op Picture of Hydatid Cyst on Right of Urinary Bladder.

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➢ *Postoperative Care:*

Oral fluid intake was resumed on the day of surgery. The patient was discharged on postoperative day 9 with a prescription for Albendazole. Follow-up was uneventful.

II. DISCUSSION

In endemic areas, hydatid disease must be a differential consideration for abdominal masses, particularly when imaging reveals cystic structures with daughter cysts or calcified walls. The pathogenesis of multiple intra-abdominal cysts may involve primary hematogenous dissemination or secondary spread following cyst rupture. Imaging modalities such as ultrasonography and computed tomography are indispensable in identifying cyst morphology, distribution, and potential complications like rupture or infection.

Management is tailored to the location, number, and viability of cysts. While pharmacological treatment with albendazole or mebendazole plays a supportive role, especially in small or inoperable lesions, surgical excision remains the cornerstone for symptomatic and extensive disease. Intraoperative precautions to prevent spillage and secondary seeding are critical. Pre- and post-operative antihelminthic therapy reduces recurrence rates and improves long-term outcomes.

III. CONCLUSION

Multiple intra-abdominal hydatid cysts represent an uncommon but important manifestation of echinococcosis. Clinicians in endemic regions must maintain a high index of suspicion for hydatid disease when evaluating patients with cystic abdominal masses. A combination of imaging, serology, and surgical expertise ensures accurate diagnosis and effective management. Early detection and comprehensive treatment remain pivotal in reducing morbidity and preventing complications.

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