

Primary peritoneal hydatidosis presenting as an abdominal mass: a rare case report

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Abstract

Introduction Hydatid disease is a zoonotic parasitic infection caused by the larval stage of *Echinococcus* species. While hepatic and pulmonary involvement is common, primary peritoneal hydatidosis is exceedingly rare, representing less than 2% of intra-abdominal cases. Due to its rarity and nonspecific presentation, primary peritoneal hydatidosis may mimic other intra-abdominal cystic lesions, making diagnosis challenging.

Case presentation We report a 28-year-old male with no prior hepatic or pulmonary hydatid disease who presented with progressive abdominal distension and lower abdominal pain for four months. Physical examination revealed multiple cystic abdominal masses. Ultrasonography and contrast-enhanced computed tomography demonstrated multiple peritoneal cystic lesions with daughter cysts and characteristic double-wall appearance, strongly suggestive of hydatid disease. The absence of hepatic and pulmonary involvement supported the diagnosis of primary peritoneal hydatidosis. The patient received preoperative albendazole therapy followed by complete surgical excision of all cysts without rupture. Histopathological examination confirmed hydatid disease.

Discussion Primary peritoneal hydatidosis is often asymptomatic until cysts enlarge and exert mass effects. Imaging modalities, particularly ultrasonography and computed tomography, play a central role in diagnosis and surgical planning. Complete surgical excision combined with antiparasitic therapy remains the cornerstone of management. Long-term follow-up is required due to the potential for late recurrence.

Conclusion This case highlights the rarity of primary peritoneal hydatidosis and underscores the importance of early recognition, comprehensive imaging, meticulous surgical technique, and postoperative antiparasitic therapy in achieving favorable outcomes.

Clinical trial number Not applicable.

Keywords Primary peritoneal hydatidosis, Hydatid cyst, *Echinococcus granulosus*, Peritoneal echinococcosis, Surgical excision, Albendazole