

FROM SUSPECTED PANCREATIC CANCER TO HYDATID DISEASE: A RARE DIAGNOSTIC CHALLENGE

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INTRODUCTION

Pancreatic hydatid cyst is a rare manifestation of echinococcosis, accounting for less than 1 % of all hydatid disease and approximately 0.2% of abdominal cases. Its radiological resemblance to cystic pancreatic neoplasms can make preoperative diagnosis challenging. Accurate diagnosis through imaging, cytological identification of parasitic elements, and multidisciplinary evaluation is essential to avoid unnecessary pancreatic surgery. We present a rare case of a primary pancreatic hydatid cyst initially suspected to be a pancreatic neoplasm, highlighting the importance of tissue diagnosis and multidisciplinary assessment in guiding appropriate management.

CASE PRESENTATION

A 48-year-old woman with previously treated hepatitis C was incidentally found to have a pancreatic lesion on surveillance ultrasound. She had a 3-year history of generalized weakness with intermittent epigastric discomfort and abdominal pain radiating to the back, but no jaundice, vomiting, or significant weight loss. Triphasic CT revealed a 3.7 × 3.5 cm well-defined cystic lesion at the pancreatic neck-body junction with internal/rim calcification and an onion-peel appearance, along with calcified peritoneal lesions.

CASE PRESENTATION (continued)

In view of the suspicious pancreatic mass and peritoneal deposits, a **cystic pancreatic malignancy was initially considered**, although there was no pancreatic duct dilatation and CT thorax showed no pulmonary metastases. CA 19-9 was normal (1.29 U/mL). EUS demonstrated a 24 × 40 mm heterogeneous lesion without vascular invasion. EUS-guided FNA unexpectedly revealed **refractile hooklets and degenerated protoscolices within necrotic debris, with no malignant cells**. Positive *Echinococcus* serology further supported the diagnosis. Following multidisciplinary review, the lesion was diagnosed as an **inactive calcified pancreatic hydatid cyst with probable calcified peritoneal hydatid deposits**, rather than malignancy. Conservative surveillance was chosen, with 3-month follow-up CT showing a stable lesion and no clinical progression.

FIGURE 1: HISTOLOGY

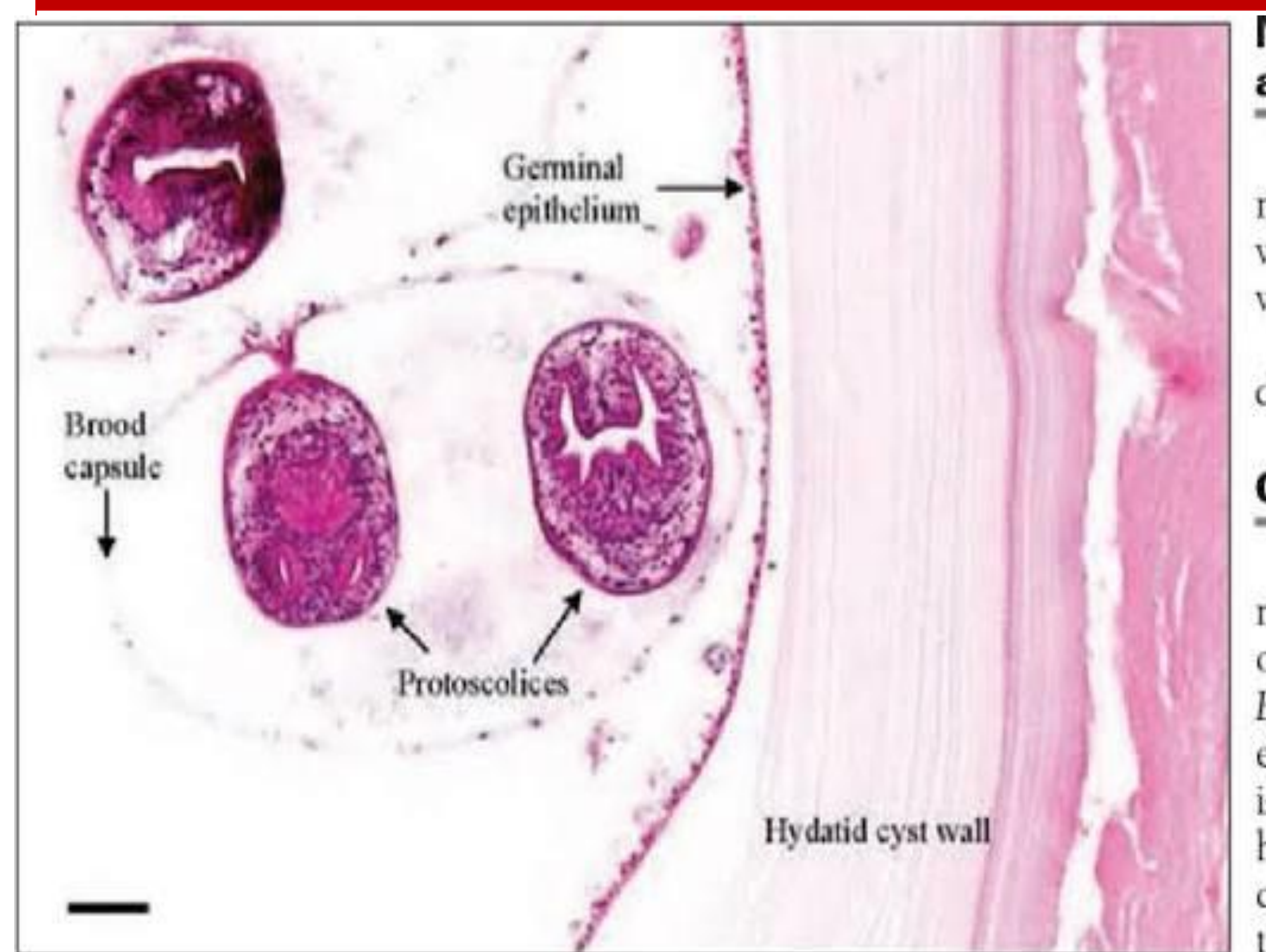


Figure 2—Photomicrograph of a section through an *Echinococcus granulosus* cyst wall. Labels include: Brood capsule, Protoscolices, Germinal epithelium, and Hydatid cyst wall. A scale bar is present in the bottom left corner.

METHODS

A multimodal diagnostic approach was used to evaluate the pancreatic cystic lesion. Initial assessment included **contrast-enhanced triphasic CT of the abdomen and CT thorax**, followed by **endoscopic ultrasound (EUS)** for detailed characterization. **EUS-guided fine-needle aspiration (FNA)** was performed for cytological assessment. Laboratory evaluation included **CA 19-9, routine blood investigations, and Echinococcus serology**. Cytology was assessed for malignant cells and parasitic structures, including hooklets and protoscolices. The case was subsequently reviewed by a **multidisciplinary hepatopancreatobiliary team**, integrating clinical, radiological, cytological, and serological findings to establish the final diagnosis and guide management. Follow-up CT imaging was performed to assess disease

FIGURE 2: CT ABDOMEN



RESULT

EUS-FNA revealed **hydatid hooklets and degenerated protoscolices**, with positive *Echinococcus* serology, confirming an **inactive calcified pancreatic hydatid cyst**. The patient was managed conservatively, and **3-month follow-up showed a stable lesion without progression**, avoiding unnecessary pancreatic surgery.