Case Reports and Reviews

Case Report

Hydatid Cyst of the Pancreas: A Rare Intraoperative Discovery – Case Report

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Abstract

Pancreatic localization of hydatid cysts is extremely rare, even in endemic regions, representing less than 1% of all hydatid disease localizations. We report the case of a 20-year-old woman with chronic epigastric pain and vomiting. Preoperative imaging suggested a pancreatic pseudocyst, but intraoperative findings confirmed a hydatid cyst. Surgical treatment included dome resection, epiploplasty, and drainage. Postoperative recovery was uneventful. This case highlights the diagnostic challenges and surgical nuances of this unusual presentation.

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Keywords

Hydatid cyst, Pancreas, Conservative treatment

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Introduction

Hydatid disease is endemic in several Mediterranean basin and South American country [1]. The liver and lungs are the most commonly affected organs. Pancreatic localization is exceptional, accounting for less than 1% of hydatid cysts in endemic areas [2]. Despite advances in imaging, diagnosis remains difficult and is often made intraoperatively [3]. This case aims to illustrate the diagnostic challenges and describe the surgical management of a pancreatic hydatid cyst.

Case presentation

A 20-year-old woman with no significant medical history presented with 8 months of chronic epigastric pain and vomiting in a context of stable apyrexia. Clinical examination revealed tenderness in the epigastric and right hypochondrium regions, with no palpable masse. There was no jaundice. Laboratory tests were normal.

- **Ultrasound:** Cystic lesion near the liver (76×35 mm), located in the perihepatic region; pancreas not visualized.
- **CT Scan:** Cystic lesion in the head and body of the pancreas (39×75 mm), suggestive of a pseudocyst (Figure 1).
- **Tumor Markers:** CEA and CA 19-9 negative.
- **Chest X-ray:** Normal.

The diagnosis was pseudocyst of the pancreas.

Surgical exploration revealed a retro-gastric mass pushing the stomach forward. Opening the posterior cavity of the omentum revealed a cystic mass developed at the expense of the head and body of the pancreas, consistent with a hydatid cyst (Figure 2a). After protection

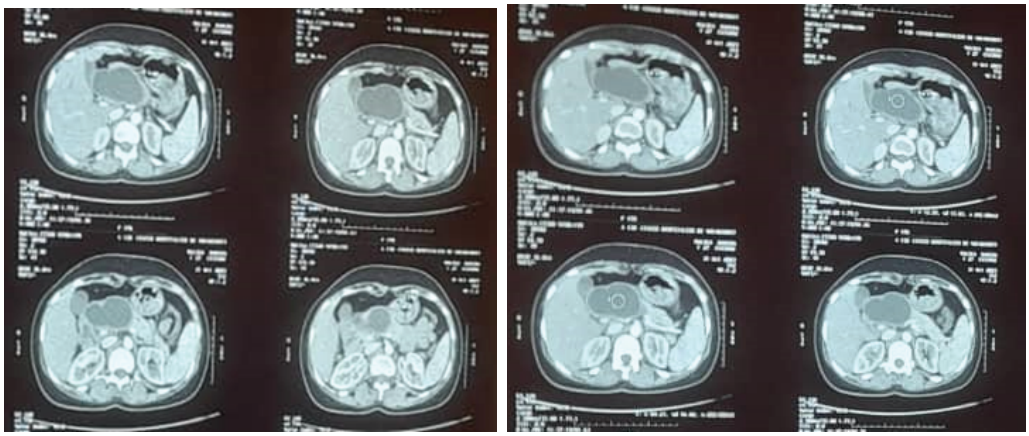

Figure 1. *Abdominal CT scan: axial slices showing a cystic formation located in the head and body of the pancreas*

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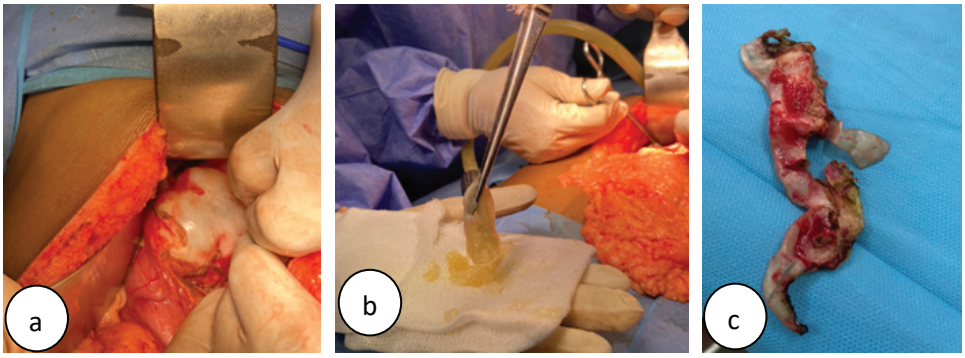

Figure 2. *Intraoperative images: showing a hydatid cyst (a) located in the head and body of the pancreas, as well as the removal of the proliferative membrane (b) and resection of the protruding dome (c)*

with drapes soaked in hydrogen peroxide diluted with saline, a aspiration and sterilization, the germinative membrane was evacuated (Figure 2b). The protruding dome was resected (Figure 2c). No ductal fistula was found. Epiploplasty and drainage were performed. Postoperative recovery was smooth, with a five-day hospital stay.

Histopathology confirmed a pancreatic hydatid cyst. Follow-up ultrasound showed no recurrence after two years, and hydatid serology was negative.

Discussion

Pancreatic hydatid cysts are rare, accounting for less than 1% of all hydatid cysts and 0.2% of abdominal localizations [4, 6]. They are isolated in 91% of cases, with a predilection for the pancreatic head (57%). Cysts are intraparenchymal in 35% and peripheral in 65% [12].

The rarity is due to the parasite's lifecycle, which typically filters through the liver and lungs before reaching systemic circulation [4].

The onset of symptoms is usually insidious, developing over several years [5, 9]. Clinical signs are nonspecific and may include:

- Palpable mass
- Compression symptoms (jaundice, portal hypertension)
- Infection or rupture
- Allergic reactions

The clinical stage rarely allows a diagnosis to be made, even in countries where hydatid disease is endemic [8, 9].

Imaging may suggest a cystic lesion but rarely confirms hydatid origin. Helpful signs include [2, 5, 10]:

- Arc-shaped calcifications
- Lack of contrast enhancement
- Intracystic vesicles
- Membrane detachment
- Associated hepatic cysts

Hydatid serology and endoscopic ultrasound may aid diagnosis [2,4]. Differential diagnoses include other macrocystic pancreatic tumors [7,10].

Surgical treatment depends on location and ductal involvement [11,12].

In fact, most authors currently agree that for corporocaudal locations, the morbidity of drainage after resction of the protruding dome (pancreatic fistula) makes it preferable to perform excision procedures sush as left splenopancreatectomy [3]. On the other hand, for cephalic cysts, total excision, cephalic duodenopancreatectomy, is considerd excessive for a benign lesion. The standard treatment is resection of the protruding dome combined, in the case of ductal fistula, with cystodigestive anastomosis [5, 12]. This procedure can be difficult and dangerous if the pancreatic parenchyma is friable. In this case, a ductal suture on a stent drain could be considered.

It would be advisable to consider the residual cavity of a pancreatic hydatid cyst as equivalent to a pancreatic section, even in the absence of a large ductal fistula, with a significant risk of postoperative pancreatic fistula. The authors therefore recommend the placement of a large drain in the residual cavity and the systematic administration of Sandostatin® at induction and postopetatively for seven days as apreventive measure [6]. Adjuvant medical treatment with Albendazole is indicated in cases of intraoperative rupture of the cyst or multiple hydatid disease [4, 6].

Conclusion

Hydztid cysts of the pancreas are extremely rare and pose a real diagnostic challenge. Conformation is often made intraoperatively. Treatment of this condition is Surgical. Resection of the protruding the preferred approach.

This case illustrates the importance of considering the possibility of a hydatid cyst when faced with a cystic lesion of the pancreas, even in non-endemic regions.

Conflict of interest

There was no conflict between the various co-authors.

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