Journal of Surgery and Operative Care
Volume 3 | Issue 1
ISSN: 2455-7617

Case Report Open Access

# Pancreatic Hydatid Masquerading as Cystic Neoplasm

**Venkatarami Reddy V*[1], Sivaramakrishna G[1], Chandramaliteeeswaran C[1], Sarala S[2] and Rukmangada N[2]**

[1]Department of Surgical Gastroenterology, Sri Venkateswara Institute of Medical Sciences, Tirupati, Andhra Pradesh, India
[2]Department of Radiology, Sri Venkateswara Institute of Medical Sciences, Tirupati, Andhra Pradesh, India

***Corresponding author:** Venkatarami Reddy V, Associate Professor, Department of Surgical Gastroenterology, Sri Venkateswara Institute of Medical Sciences, Tirupati, Andhra Pradesh, India, Tel: 9493629119, E-mail: drvrreddy1974@gmail.com

**Citation:** Venkatarami Reddy V, Sivaramakrishna G, Chandramaliteeeswaran C, Sarala S, Rukmangada N (2018) Pancreatic Hydatid Masquerading as Cystic Neoplasm. J Surg Oper Care 3(1): 104. doi: 10.15744/2455-7617.3.104

**Received Date:** April 27, 2018 **Accepted Date:** May 29, 2018 **Published Date:** May 31, 2018

## Abstract

Hydatid disease of pancreas is a rare condition, with an incidence of less than 1%. Establishing diagnosis may be difficult because clinical and imaging findings are similar to other more commonly encountered cystic lesions of pancreas. We present a case of isolated Hydatid cyst in the tail of pancreas which masquerading as mucinous cystic neoplasm of pancreas.

**Keywords:** Hydatid Cyst; Mucinous Cystic Neoplasm; Distal Pancreatectomy

## Introduction

Hydatid cyst is a zoonotic disease which affects predominantly liver followed by lungs in more than 90% cases. Involvement of pancreas is very rare, accounting for less than 1% cases. Establishing diagnosis preoperatively is difficult due to rarity of hydatid involving pancreas and also the image findings mimic more commonly encountered cystic neoplasm of pancreas. Less aggressive treatment approach is preferred in hydatid disease while cystic neoplasms demand pancreatic resections. We present a case of pancreatic hydatid cyst which was misdiagnosed as mucinous cystic neoplasm.

## Case Report

A 33year gentleman presented with pain in left lumbar region of 10 days duration. There was no associated vomiting, fever, GI bleed, Bowel/Bladder disturbances. No associated loss of appetite or loss of weight. No addictions or comorbidities were present. On examination abdomen was soft and there was no organomegaly. Investigations revealed a normal blood picture, liver and renal function tests. Ultrasound abdomen demonstrated a cystic lesion measuring 4x3cm in body and tail of pancreas. Contrast enhanced CT done (Figure 1). It revealed a 5x4 cms well defined multiseptate cystic lesion with peripheral rim calcification in tail of pancreas. Splenic vein was abruptly cut off with evidence of infiltration. Ectopic and malrotated left kidney was present. A provisional diagnosis of Mucinous cystic neoplasm of pancreas was made based on imaging findings. Surgical resection was planned. In view of lesion located in distal pancreas with infiltration of splenic vein, distal pancreatectomy with splenectomy was planned. Pneumococcal vaccine was given preoperatively.

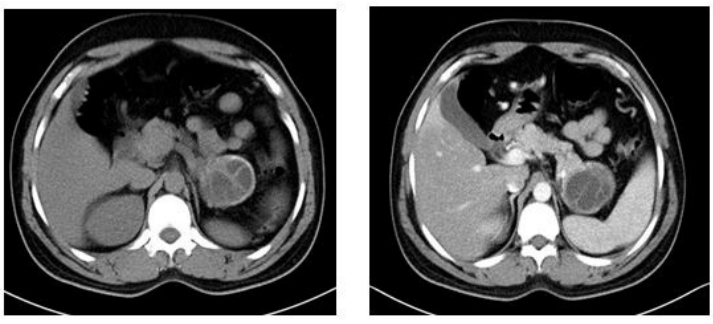

Figure 1a Figure 1b

Figure 1: Plain and contrast CT showing multiseptate cystic lesion with peripheral rim calcification in tail of pancreas

On laparotomy, there was a well encapsulated cystic lesion measuring 5x4cms in the tail of pancreas. Lesion was abutting splenic vein, transverse mesocolon and duodenum. No regional lymphadenopathy or free fluid noted. Distal pancreatectomy with splenectomy was done (Figure 2). Postoperative recovery was uneventful. Postoperative histopathology revealed the lesion as Hydatid cyst of pancreas (Figure 3). Patient was given 3 weeks of albendazole therapy.

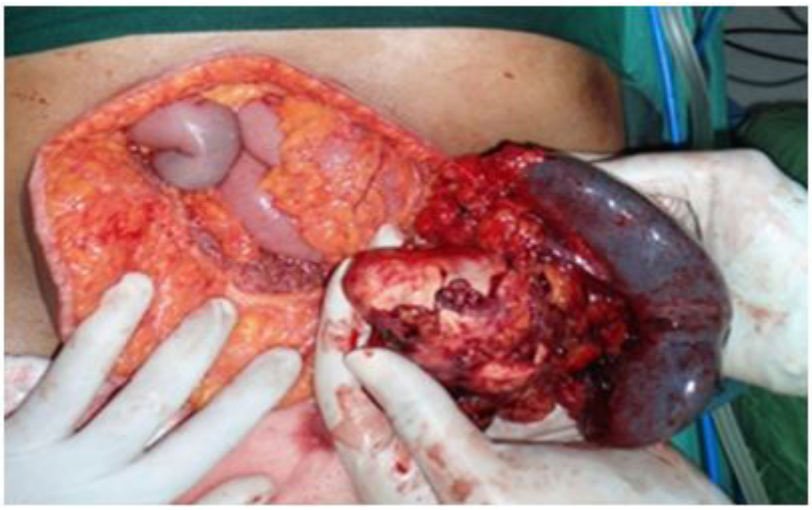

**Figure 2:** Specimen of distal pancraetectomy with splenectomy with SOL in tail of pancreas

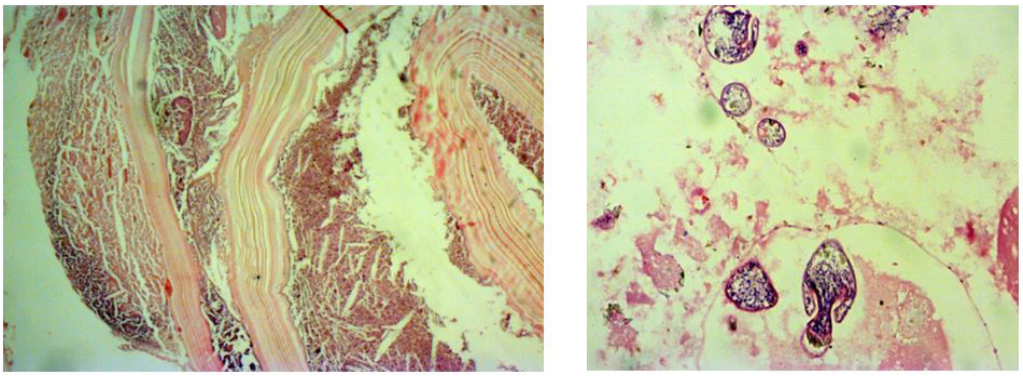

**Figure 3: (a)** Hydatid cyst wall showing ectocyst and endocyst with underlying hydatid sand and cholesterol clefts; **(b)** showing brood capsules and Scolex

## Discussion

Hydatid disease is a zoonotic disease caused by echinococcus granulosus. The most commonly involved organ is liver followed by lung. Pancreatic hydatid cyst (PHC) disease is rare, even in regions where hydatidosis is endemic,with the reported incidence rates consistently below 1% [1].

PHC may be a primary (involving the pancreas only) or a secondary (with multiple organ involvement) disease [2]. Pancreatic cysts are solitary in 90%, and their distribution is heterogeneous. Approximately 50%-58% are found in the pancreatic head, 24%-34% in the body, and 16%-19% in the pancreatic tail [3]. Majority are asymptomatic and incidentally detected. In symptomatic patients, clinical presentation depend on the location of the cyst within the pancreas. Cysts located in the pancreatic head may cause obstructive jaundice by either exerting external compression on or fistulizing into the common bile duct. It can also cause acute pancreatitis due to compression on main pancreatic duct. Hydatid cysts in the pancreatic body and tail usually remain asymptomatic until they grow large enough to compress adjacent organs or anatomical structures. Early satiety due to gastric compression, splenic vein compression which may lead to splenic vein thrombosis with severe complications such as left-sided portal hypertension.

The most important step in the diagnosis of PHC is clinical suspicion. Contrast CT delineates nature of cyst, cyst size, location, relation with pancreato-biliary system, and presence of cysts in other organs. CT imaging features are similar to mucinous cystic neoplasm. Mucinous cystic neoplasms are well encapsulated, multiloculated with enhancing sepate on contrast. Eventhough peripheral curvilinear calcifications of the cyst wall are more suggestive of hydatid, they are also reported in 10-25% of mucinous cystic neoplasms [4]. It is also useful in treatment monitoring and postoperative recurrence detection [5]. ERCP is indicated in patients with cholangitis or pancreatitis secondary to biliary or pancreatic duct obstruction. The differential diagnosis of PHC include neoplastic (cystadenoma, cystadenocarcinoma, neuroendocrine tumors, vascular, metastatic cystic lesions) or non-neoplastic (congenital pancreatic cysts, pseudocysts) cystic lesions [6]. Hydatid serology is diagnostic if positive.

Surgery remains the treatment of choice for pancreatic hydatid disease. Antihelminthic prophylactic therapy (albendazole, mebendazole, or praziquantel) must be administered for 2-4 wk prior to surgery in order to decrease intracystic pressure and reduce anaphylaxis and postoperative recurrence risks. Provided there is no communication between the cyst and bile or pancreatic duct, scolicidal agents are injected to sterilize the cyst before excision. Cysts located close to vital anatomical structures are managed by evacuation of contents and partial excision of cyst wall. Pancreatic head cysts can be managed with partial cystectomy with external drainage, partial cystectomy with omentopexy, pericystectomy, marsupialisation, and pancreaticoduodenectomy procedures. For cysts located in the pancreatic body or tail, the most appropriate approach is a spleen-preserving distal pancreatectomy. Central pancreatectomy may be preferable when cysts are localized to the pancreatic body or neck [7]. While postoperative antihelminthic therapy is not necessary in surgical operations that involves complete removal of cyst without opening the cavity, a medical therapy for 3-4 wk is appropriate after more conservative surgical procedures such as partial cystectomy.

## Conclusion

Though primary hydatid disease in pancreas is extremely rare, the clinician should always consider it as differential diagnosis in diagnosing and treating patients presenting with cystic lesions of pancreas, especially in endemic areas.

## References

1. Akbulut S, Yavuz R, Sogutcu N, Kaya B, Hatipoglu S, et al. (2014) Hydatid cyst of the pancreas: Report of an undiagnosed case of pancreatic hydatid cyst and brief literature review. World J Gastro Surg 6: 190-200.

2. Patil DS, Jadhav KV, Ahire PP, Patil SR, Shaikh TA, et al. (2013) Pancreatic hydatid presenting as an intercostal hernia. Int J MedAppl Sci 2: 255-8.

3. Makni A, Chebbi F, Jouini M, Kacem M, Ben Safta Z (2011) Left pancreatectomy for primary hydatid cyst of the body of pancreas. J Afr Hepatol Gastroenterol 5: 310-2.

4. Acar M, Tatli S (2011) Cystic tumors of the pancreas: a radiological perspective. Diagn Interv Radiol 17: 143-9.

5. Makni A, Jouini M, Kacem M, Safta ZB (2012) Acute pancreatitis due to pancreatic hydatid cyst: a case report and review of the literature. World J Emerg Surg 7: 7.

6. Bansal VK, Misra MC, Krishna A, Kumar S, Garg P, et al. (2010) Pancreatic hydatid cyst masquerading as cystic neoplasm of pancreas. Trop Gastroenterol 31: 335-7.

7.Shah OJ, Robbani I, Zargar SA, Yattoo GN, Shah P, et al. (2010) Hydatid cyst of the pancreas. An experience with six cases. JOP 11: 575-81.