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Case report

Pancreatic Cystic Lymphangioma: Case Report

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Abstract

Lymphangiomas are benign hamartomatous malformations composed of lymphatic fluid and are exceedingly rare lesions. While they may occur in various anatomical sites, only 5% are found in the abdomen, and pancreatic lymphangiomas represent approximately 0.2% of all pancreatic neoplasms. Their diagnosis is challenging using conventional imaging modalities, making endoscopic ultrasound (EUS) a key tool for both diagnosis and drainage. We report the case of a man in his fifth decade of life who was undergoing evaluation for abdominal pain secondary to renal lithiasis. During diagnostic workup, an incidental mass was identified in the pancreatic head, which could not be characterized by conventional radiologic imaging. Endoscopic ultrasound facilitated diagnostic clarification and enabled cyst drainage, with fluid analysis confirming a pancreatic cystic lymphangioma.

Keywords

Cystic lymphangioma, pancreatic lymphangioma, abdominal lymphangioma, endoscopic ultrasound, EUS-guided drainage

INTRODUCTION

Lymphangiomas are benign hamartomatous malformations with lymphatic differentiation, in which cysts filled with lymph form due to a disorder in the communication between lymphatic channels and vessels. They primarily affect children and are very rarely found in adults (less than 10% of cases)[1,2]. Most are located in the neck and axillary region, and only 5% occur in the mediastinum and abdomen[3]. Pancreatic lymphangiomas are exceedingly rare (less than 1% of abdominal lymphangiomas) and account for less than 0.2% of pancreatic neoplasms[4].

Cyst size correlates with clinical manifestations; however, most symptoms are nonspecific, and imaging diagnosis is also uncertain because it is not easy to distinguish among serous cystadenomas, mucinous cystic neoplasms, intraductal papillary mucinous neoplasms, and pseudocysts[5,6].

CASE DESCRIPTION

A 41-year-old male patient with no relevant medical history presented with a two-day history of pain in the right lumbar region radiating to the ipsilateral inguinoscrotal region, accompanied by episodes of vomiting. On physical examination, bilateral costovertebral angle tenderness was observed, predominantly on the right.

Based on the presenting symptoms, physical examination findings, and laboratory results, a probable diagnosis

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of renoureteral colic was considered. A urinary tract ultrasound was requested, which identified mild right hydronephrosis associated with lithiasis in the proximal third of the ureter, measuring 34.2 mm in diameter. The patient was evaluated by the urology service, which requested a contrast-enhanced CT urography. The results confirmed the presence of a 6-mm proximal right ureterolithiasis; however, an image suggestive of a space-occupying lesion in the head of the pancreas, located in the uncinate process, was also observed. This lesion was described as a cystic lesion measuring 45 × 34 mm (**Figure 1**), which drew attention during the evaluation.

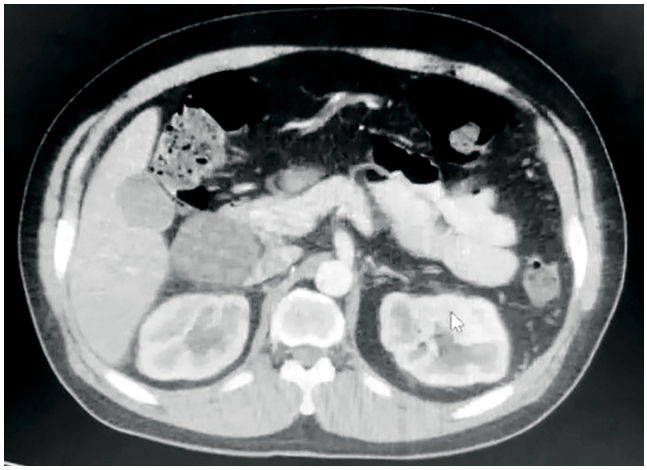


Figure 1. Contrast-enhanced abdominal computed tomography showing a cystic lesion measuring 45 × 34 mm in the head and uncinate process of the pancreas. Author's file.

Admission laboratory tests showed mild leukocytosis without neutrophilia, with no anemia or thrombocytopenia. Coagulation parameters were within normal limits. Elevations in liver enzymes were observed, including alanine aminotransferase (ALT), alkaline phosphatase (ALP), gamma-glutamyl transferase (GGT), and lactate dehydrogenase (LDH).

Given this pancreatic finding, biliopancreatic endoscopic ultrasound was performed. It revealed a unilocular but multilobulated cystic lesion located in the uncinate process of the pancreas. The lesion measured 48 × 36 mm and demonstrated an adequate cleavage plane with the organ and adjacent vascular structures (**Figure 2**). The remainder of the pancreas showed normal echogenicity without lesions, and the duct of Wirsung was of normal caliber. The common bile duct had a normal diameter. No signs of ascites or lymphadenopathy were identified in the celiac trunk. Blood flow in the evaluated vessels was adequate on Doppler assessment.

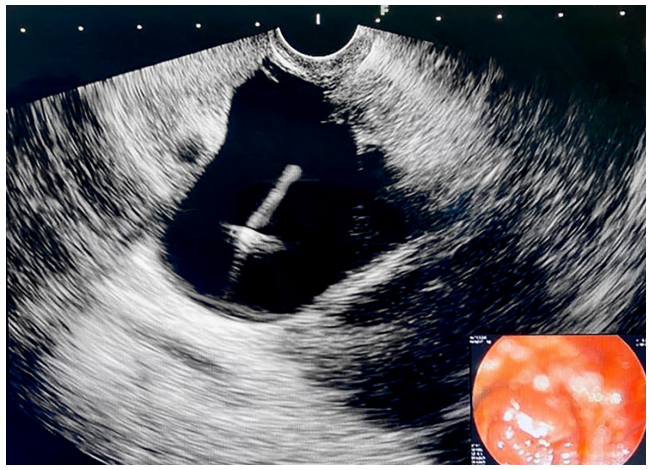


Figure 2. Biliopancreatic endoscopic ultrasound showing a unilocular but multilobulated cystic lesion located in the uncinate process of the pancreas. The lesion measures 48 × 36 mm and has an adequate cleavage plane with the organ and adjacent vascular structures. Author's file.

Fine-needle puncture and drainage of the cystic lesion were performed in three passes using a 22-gauge needle. A milky, thick, non-mucinous fluid was obtained and drained, yielding 10 mL for cytological and additional analyses (**Figure 3**).



Figure 3. Drainage of a pancreatic head cyst visualized on endoscopic ultrasound with the outflow of milky fluid. Author's file.

Cytochemical analysis revealed elevated triglyceride levels (2,405 mg/dL) and cholesterol levels (140 mg/dL). Cytology of the submitted sample was negative for malignancy, showing a proteinaceous and hemorrhagic background within the cyst contents, with the presence of histiocytes, lymphocytes, and some native cells.

DISCUSSION

Pancreatic lymphangiomas are rare, benign lesions of lymphatic origin that most often present as incidental findings[1], as occurred in this case, in which a pancreatic lymphangioma was identified during the evaluation of renoureteral colic. The patient, a 41-year-old man with no relevant medical history, was initially evaluated for right lumbar pain radiating to the inguinoscrotal region, associated with episodes of vomiting.

Initial evaluation with ultrasound and CT urography revealed proximal right ureterolithiasis, accompanied by the unexpected finding of a cystic lesion in the uncinate process of the pancreas. It should be noted that, according to the medical literature, the most frequent location is typically the pancreatic tail, followed by the pancreatic head.

On both computed tomography and magnetic resonance imaging, the most common finding is a multiloculated lesion in 74% of cases and a uniloculated lesion in 19%[6]. In this patient, the observed lesion measured 45 × 34 mm and showed a unilocular but multilobulated pattern, without invasion of vascular structures or pancreatic ducts. These features, together with the absence of related symptoms, were suggestive of a benign lesion.

Definitive diagnosis was established by endoscopic ultrasound with fine-needle puncture and drainage, which allowed the acquisition of a milky fluid with significantly elevated triglyceride and cholesterol levels, considering that values greater than 110 mg/dL are suggestive of lymphangioma.

Cytological analysis showed no evidence of malignancy, which further supported the benign nature of the lesion. This diagnostic approach is relevant, as lymphangiomas lack pathognomonic features on imaging studies, and their diagnosis requires histological or biochemical confirmation

It is important to note that pancreatic lymphangiomas are extremely rare, with fewer than 100 cases reported in the literature[7]. Although they are more frequently diagnosed in women, this case contributes to broadening the understanding of their presentation in men and underscores the need to consider this entity in the evaluation of nonspecific abdominal pain. In most cases, lymphangiomas are asymptomatic, and management does not require surgical intervention in the absence of associated symptoms[8].

The use of endoscopic ultrasound with fine-needle puncture and drainage proved to be a safe and effective technique for diagnosing this lesion. In this case, the procedure was performed without complications, yielding sufficient material for biochemical and cytological studies. This approach minimized the need for more invasive interventions and allowed for appropriate conservative management. Given the benign nature of the lesion, periodic follow-up could be continued to avoid complex and morbid surgical procedures such as pancreaticoduodenectomy, particularly since the patient's lesion is located between the head and the uncinate process of the pancreas.

CONCLUSIONS

Lymphangioma is a very rare pancreatic lesion with nonspecific clinical and imaging characteristics. This case highlights the importance of careful evaluation of incidental findings on imaging studies. Although pancreatic lymphangiomas are benign lesions, early and accurate diagnosis is essential to avoid unnecessary interventions and to ensure appropriate management. Complete surgical resection of the lesion is the definitive treatment; however, given its benign nature and considering surgical risks, endoscopic ultrasound with image-guided puncture constitutes a valuable tool in the management of this entity, especially in cases in which the diagnosis is not initially clear. In the absence of symptoms attributable to this condition, clinical and tomographic follow-up may be performed.

Ethical Considerations

We declare that this article does not contain personal information that could identify the patient, and that anonymity has been preserved in accordance with institutional protocols. Clinical history data were accessed and managed solely by the researchers. This publication complies with current regulations in bioethical research, and no experiments were conducted in animals or humans. In accordance with Resolution 8430 of 1993 of the Colombian Ministry of Health, Title II: Research in Human Beings, Chapter 1: Ethical Aspects of Research in Human Beings, Article 11, this study is considered to involve no ethical risk. Authorization for publication of this case report was obtained from the institutional ethics committee of IPS Endomedical, Barranquilla, Colombia.

Conflict of Interests

The authors declare no conflicts of interest.

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REFERENCES

1. Gupta S, Phatak S, Onkar P, Ambhore AN, Mitra K. A Case of Lymphangioma of the Calf Region: Imaging Spectrum With Histopathological Correlation. Cureus. 2023;15(11):e48818. https://doi.org/10.7759/cureus.48818
2. Bellido Luque JA, García Reyes A, Nogales Muñoz Á. Giant pancreatic cystic lymphangioma. Rev Esp Enferm Dig. 2021;113(1):75-6. https://doi.org/10.17235/reed.2020.7003/2020
3. Chen D, Feng X, Lv Z, Xu X, Ding C, Wu J. Cystic lymphangioma of pancreas. A rare case report and review of the literature. Medicine (Baltimore). 2018;97(28):e11238. https://doi.org/10.1097/MD.0000000000011238
4. Tasis N, Mpalampou E, Sarafi A, Skafida E, Tsouknidas I, Fradelos E, et al. Large cystic lymphangioma of the pancreas: unusual finding with differential diagnosis and therapeutic considerations. J Surg Case Rep. 2023;2023(12):rjad676. https://doi.org/10.1093/jscr/rjad676
5. Ray R, Baruah TD, Mahobia HS, Borkar A. Pancreatic Lymphangioma: An Unusual Cause of Abdominal Lump. Cureus. 2021;13(11):e19452. https://doi.org/10.7759/cureus.19452
6. Karajgikar J, Deshmukh S. Pancreatic Lymphangioma: A Case Report and Literature Review. J Comput Assist Tomogr. 2019;43(2):242-4. https://doi.org/10.1097/RCT.0000000000000818
7. Jiménez-Gutiérrez JM, Alonso-Lárraga JO, Villegas-González LF, Ortega-Caballero AY. Linfangioma de páncreas diagnosticado mediante biopsia con aguja fina guiada por ultrasonido endoscópico: Reporte de caso. Rev Gastroenterol México. 2024;89(4):539-41. https://doi.org/10.1016/j.rgmx.2024.05.003
8. Santes O, Chan C. Cystic Lymphangioma of the Pancreas: a Rare Entity. J Gastrointest Surg. 2016;20(12):2100-1. https://doi.org/10.1007/s11605-016-3191-2