Case 4506

Pancreatic cystic lymphangioma
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Section: Abdominal imaging
Case Type: Clinical Cases
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Patient: 45 years, female

Clinical History:

A 45 years old female patient presented to the emergency room with epigastric abdominal pain, irradiating to the back. On physical examination a distended abdomen was noted, and there was a palpable mass. Complete haemogram, liver function tests, and renal function test were normal.

Imaging Findings:

Abdominal pain, irradiating to the back. On physical examination a distended abdomen was noted, and there was a palpable mass. Complete haemogram, liver function tests and renal function test were normal. Ultrasound showed a multilocular cystic lesion in the pancreatic body, measuring 3.5cm. Abdominal CT scan showed a well-defined cystic mass in the pancreatic body. T2 – weighted MR image showed the cystic component of the lesion and the fine septa, and T1-weighted image showed the lesion to be hyperintense. Celiac arteriography revealed no encasement of the artery or tumour staining. The patient underwent exploratory laparotomy through a roof top incision. There was no hepatosplenomegaly, free fluid or any other evidence of metastasis. The mass was well encapsulated and was originating from the head of the pancreas. The duodenum was stretched over its surface, while the pancreatic tissue was compressed underneath it. A plane of dissection was developed between the compressed pancreatic head and the tumour. The entire neoplasm was separated from the adjacent compressed pancreatic tissue and excised. There was no communication with the pancreatic duct. Adequate haemostasis was achieved. There was no involvement of the major vessels. A tube drain was kept in the lesser sac prior to closure of the peritoneal cavity. Postoperative recovery of the patient was uneventful. Histology revealed a pancreatic cystic lymphangioma.

Discussion:

Pancreatic lymphangiomas are quite rare benign tumours, with a very few cases reported in the literature, and consist of congenital abnormalities of the lymphatics that occur predominantly in the pancreatic head and neck. The formation of a cystic lymphangioma of the pancreas may occur due to abnormal development of the lymphatic system in the dorsal mesoduodenum during the second and third months of gestation. Abdominal sites account for 1% of all lymphangiomas, with mesentery and retroperitoneum accounting for the vast majority. The tumours are multicystic, containing serous or chylous fluid, and range in size between 3 and 20cm in greatest dimension. Histologically, lymphangiomas consist of multilocular cysts of various sizes ranging from microscopic to as large as 10cm, lined by endothelial cells. The stroma contains smooth muscle and mature lymphocytes. A thin capsule of fibrous tissue is present. The clinical presentation depends on the number, size, and location of the lesions. Patients are often asymptomatic and the tumour is found incidentally, but complications such as anaemia, haemorrhage, infection, torsion, volvulus, rupture, and intestinal or ureteral obstruction may occur. All ages are affected and there is a female preponderance. At imaging the tumour appears as a homogenous cystic mass, frequently located in the body and tail of pancreas. CT typically shows lymphangiomas as well-circumscribed multilocular cystic masses divided by thin septa. Following IV contrast, there is mural enhancement and visualization of fine septa. The mass is
hypoechoic on US. MRI will show the hyperintense cyst content on T2-weighted sequences with high signal intensity on T1 weighted sequences due to high protein content. The wall and the septa enhance following gadolinium injection. The differential diagnosis included the cystic tumours of the pancreas (serous, mucinous, and intraductal cystic tumours), a pseudocyst, and a solitary pancreatic cyst. Lymphangiomas are benign but can be locally invasive. Complete surgical excision is curative. Incomplete excision results in local recurrence.

**Differential Diagnosis List:** Pancreatic cystic lymphangioma

**Final Diagnosis:** Pancreatic cystic lymphangioma

**References:**


Description: Abdominal CT showing a cystic lesion in the pancreatic body Origin:
Figure 2

Description: T2 – weighted sequence showing the hyperintense cystic component of the lesion and the fine septa

Origin:

Description: T1 weighted image showing the hyperintense lesion

Origin:
Description: Angiography showed that the lesion was avascular. Origin:
**Figure 4**

**Description:** Multilocular cystic spaces of various sizes ranging from microscopic to as large as 10cm, lined by endothelial cells. **Origin:**
Figure 5

Description: The stroma contains smooth muscle and mature lymphocytes

Origin: