

Solid Pseudopapillary Epithelial Neoplasm (Spen) of the Pancreas

Ishan Barotra¹, Brahmjeet Atrish²

^{1,2}Junior Resident, IGMC Shimla

Abstract:

SPENs are commonly observed in women in their 20s and 30s with < 10% of SPEN occurring in men(10:1).

It is commonly found incidentally in asymptomatic patients undergoing abdominal imaging. SPEN is commonly found in the tail of the pancreas and sometimes in the head of the pancreas, but there are reports of the occurrence of SPEN even in other parts of the pancreas. It presents with abdominal pain or intra-abdominal mass effects such as abdominal discomfort, nausea, vomiting, loss of appetite, early satiety, or weight loss in symptomatic patients.

SPEN have very low malignant potential (10–15%), but the following tumor characteristics suggest malignancy: capsular invasion, high expression of Ki-67 on immunohistochemistry, cellular pleomorphism, and high nuclear grade. It usually has a good prognosis following surgical resection.

Malignant SPN is reported more commonly in the second to fifth decades of life and is typically seen in tumors measuring 6 cm or more.

SPN metastasis is most commonly seen in the liver and less commonly in the lymph nodes and peritoneum.

Keywords: Pancreas, tumour, neoplasm, SPEN

INTRODUCTION

Solid Pseudopapillary Epithelial Neoplasm (SPEN) of the pancreas is a rare cystic exocrine tumor of the pancreas.

SPEN was first described by V.K. Frantz in 1959.

Also known as a solid pseudopapillary tumor, papillary epithelial neoplasm, papillary cystic neoplasm, solid and papillary neoplasm, low-grade papillary neoplasm, and Hamoudi or Frantz tumor.

CASE REPORT

HISTORY

24 years old female. History of recurrent pain epigastrium

EXAMINATION

Abdomen was soft, no distention.

No abdominal guarding, rigidity, or rebound tenderness.

There was no lump palpable and no organomegaly

Cardiovascular, respiratory, nervous system and musculoskeletal examination were unremarkable.

INVESTIGATIONS

USG ABDOMEN: There is well- defined isoechoic lesion measuring 8.7x6.7x6.6 cm in epigastric region showing internal vascularity and multiple cystic areas

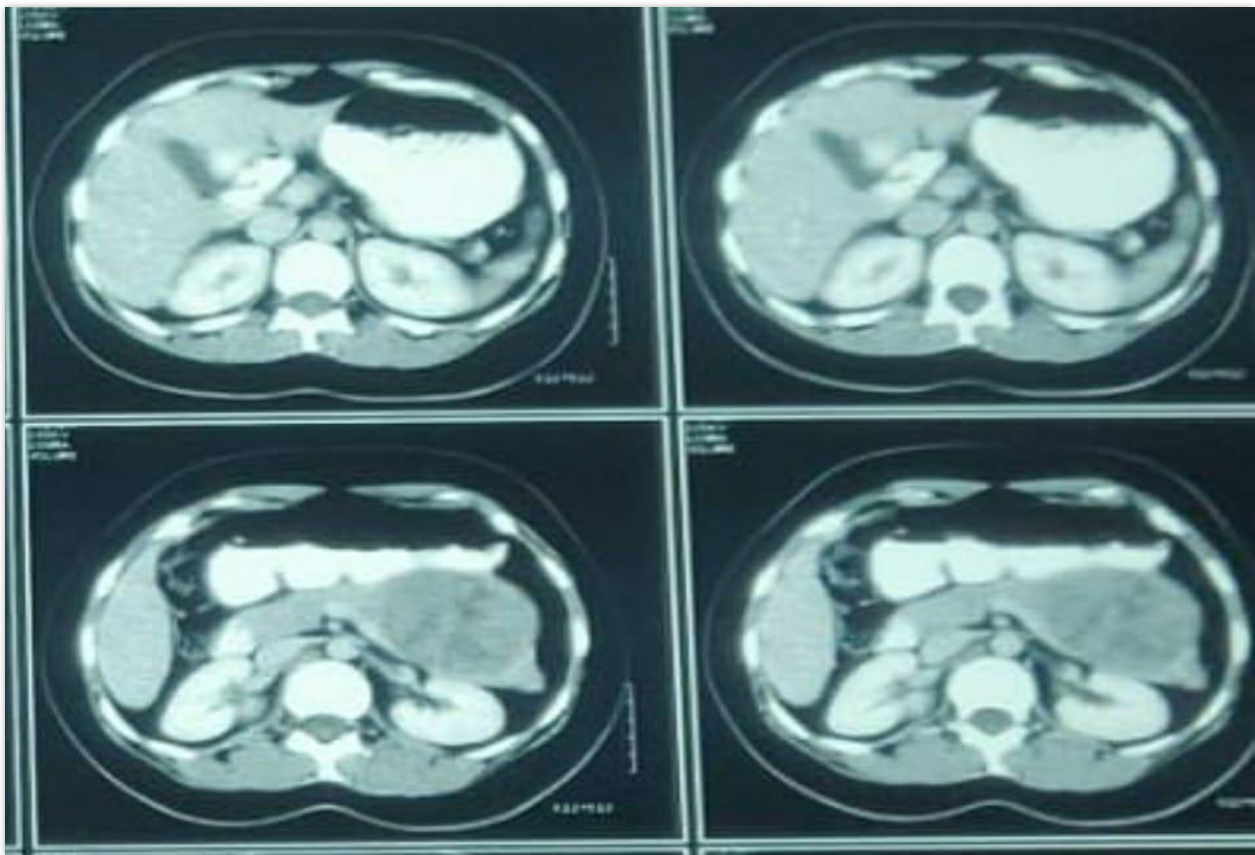
CECT ABDOMEN

A large well marginated solid hypodense mass of size 8.8x7x6.5 cm seen in distal body and tail of pancreas.

The mass shows subtle heterogenous post contrast enhancement with large non enhancing areas within (S/O necrosis).

No foci of internal haemorrhage or calcification.

It is causing mass effect on splenic vein. Posteroinferiorly it is causing mild compression on 3rd part of duodenum .

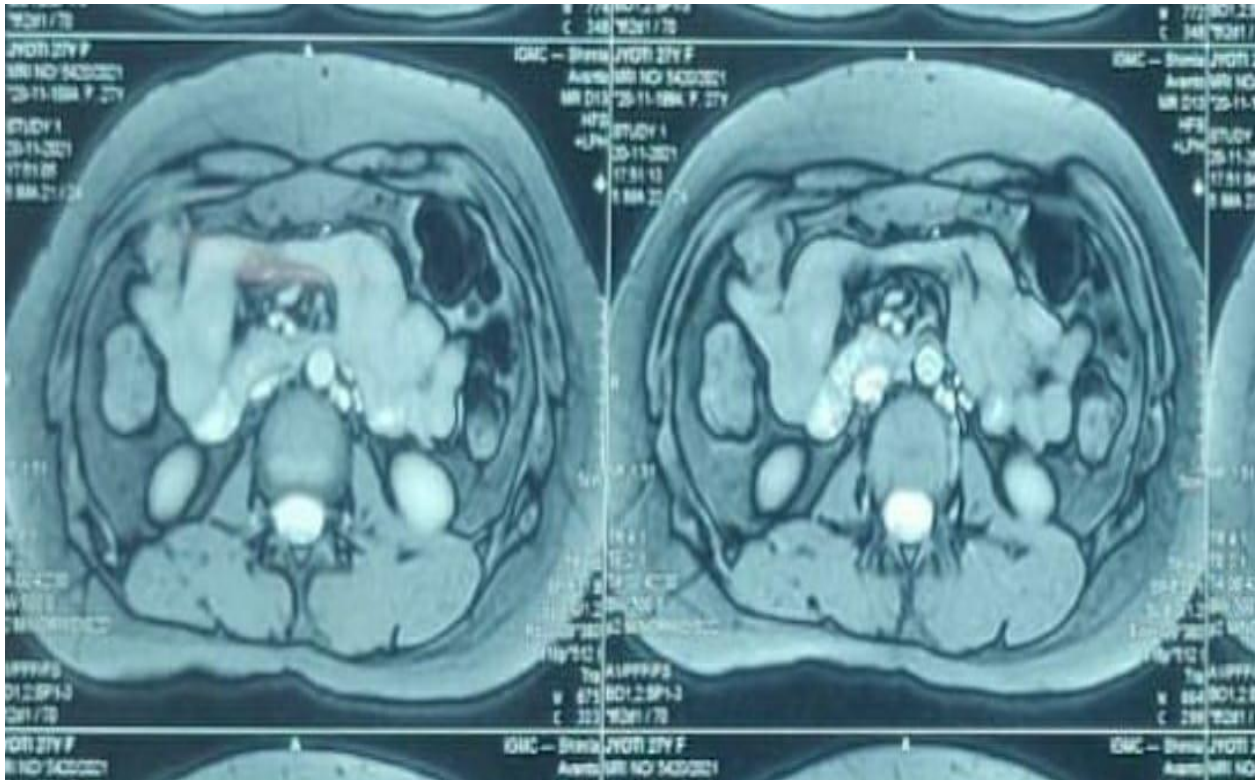


CECT ABDOMEN

MRI ABDOMEN

A large well defined solid cystic lesion measuring 6.8x8.4x7.4 cm is seen involving distal body and tail of pancreas.

Solid portion of mass shows diffusion restriction and progressive heterogenous post contrast enhancement.



MRI ABDOMEN

Blood Investigations:

Blood investigations were WNL.

SURGERY

Spleen preserving distal pancreatectomy was done

Operative findings:

There was a large mass of size 7x8cm involving body and proximal part of tail of pancreas.

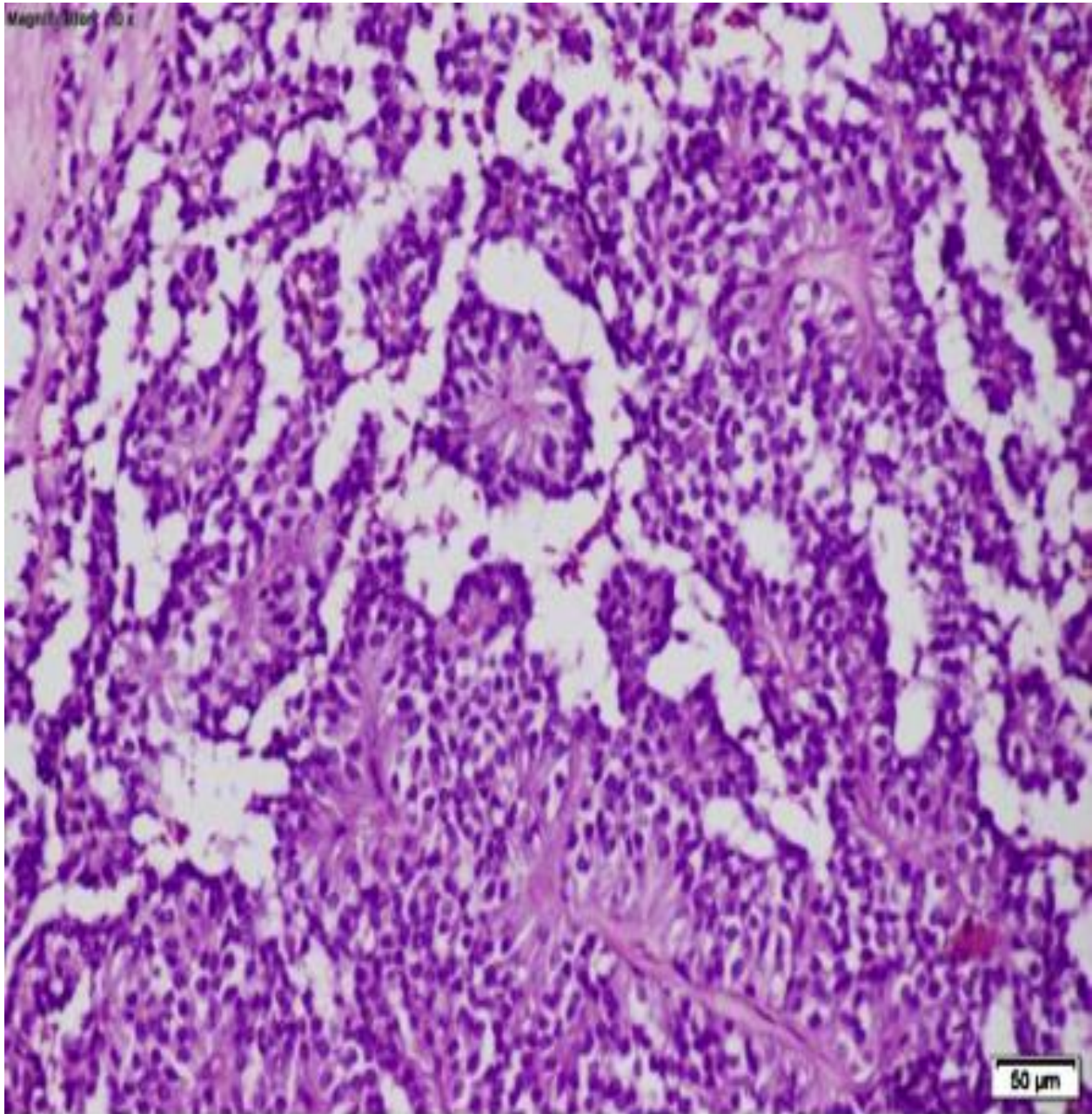
Mass was encapsulated causing displacement of splenic artery and vein superiorly.

Gerota's fascia, transverse mesocolon, posterior wall of stomach, D3 and D4, SMV and PV were free.



INTRAOPERATIVE PICTURE

HPE – Solid pseudopapillary tumour of pancreas of size 9×5.5×5 cm with resected margins free of tumour

**DISCUSSION**

SPENs are commonly observed in women in their 20s and 30s with < 10% of SPEN occurring in men(10:1)

It is commonly found incidentally in asymptomatic patients undergoing abdominal imaging.

PEN is commonly found in the tail of the pancreas and sometimes in the head of the pancreas, but there are reports of the occurrence of SPEN even in other parts of the pancreas.

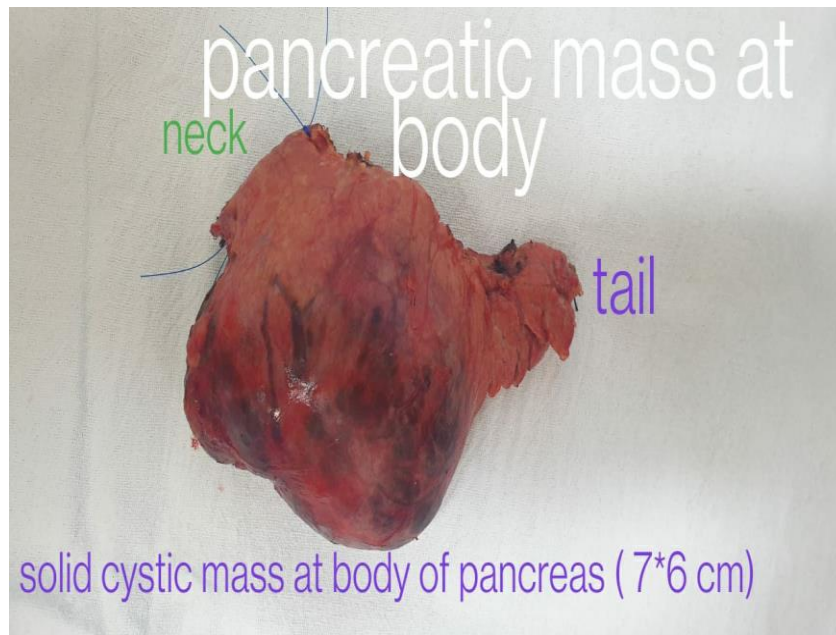
It presents with abdominal pain or intra-abdominal mass effects such as abdominal discomfort, nausea, vomiting, loss of appetite, early satiety, or weight loss in symptomatic patients.

SPEN have very low malignant potential (10–15%), but following tumor characteristics suggest malignancy: capsular invasion, high expression of Ki-67 on immunohistochemistry, cellular pleomorphism and high nuclear grade.

It usually has a good prognosis following surgical resection.

Malignant SPN is reported more commonly in the second to fifth decades of life and is typically seen in tumors measuring 6 cm or more.

SPN metastasis is most commonly seen in the liver and less commonly in the lymph nodes and peritoneum.



Resected specimen

REFERENCES

1. Solid-Pseudopapillary tumor of the pancreas. *RadioGraphics* 2003;23:1644–8.
2. Martin RC, Klimstra DS, Brennan MF, Conlon KC. Solid-pseudopapillary tumor of the pancreas: a surgical enigma? *Ann Surg Oncol* 2002;9(1):35–40
3. Zaneta ´ Słowik-Moczydłowska, Michał Gogolewski, Sadeq Yaqoub, Anna Piotrowska, Andrzej Kaminski, ´ Solid pseudopapillary t Coleman KM, Michael CD, Steven AB. umor of the pancreas (Frantz's Tumor)