CASE REPORT

Extra pancreatic solid pseudopapillary tumour in a young male

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Abstract

Solid pseudo-papillary tumour of pancreas is a rare neoplasm having a low malignant potential. It mostly affects young adolescent females. We report an unusual case of an 18 year old male with a mass in the mesocolon which was reported as solid pseudo-papillary tumour of pancreas. This case is unusual by virtue of extra pancreatic location and male gender of the patient.

Keywords: Solid pseudo-papillary tumour, Ectopic pancreas, Mesocolon.

Introduction

Solid pseudo-papillary tumour (SPPT) of pancreas is a rare neoplasm accounting for 0.17-2.7% of all pancreatic tumours. It commonly affects females in the second or third decade of life.[1] From the time, this tumour was first described in the mid 19th century more than 700 well documented examples have been quoted worldwide in English literature.[2] The presence of this tumour outside the pancreas is an even rarer entity. Few cases have been described previously where the tumour was seen in an extra-pancreatic location with or without concomitant ectopic pancreatic tissue.[1]

Case Report

An 18 year old male, resident of Bagh, Azad Kashmir came to a tertiary care hospital with the presenting complaints of pain epigastrium and altered bowel habits. Detailed general and systemic physical examination revealed no abnormality. His routine investigations were within normal limits. CT scan of abdomen and pelvis revealed a 6cm mass in the mesentery of transverse colon lying in close proximity of head of pancreas anteriorly (Figure-1a).

The patient was advised surgery of the mass which was carried out. Per operatively, a 6.0 x 5.0 cm firm mass was seen in the mesocolon. The mass was separate from the C of duodenum and pancreas (Figure-1b). It was well circumscribed and could be easily separated from the bowel. The loop of transverse colon was mobilized and mesocolon with this nodule was resected. The segment of colon was saved. A rim of fat (around the tumour) was excised along with the tumour.

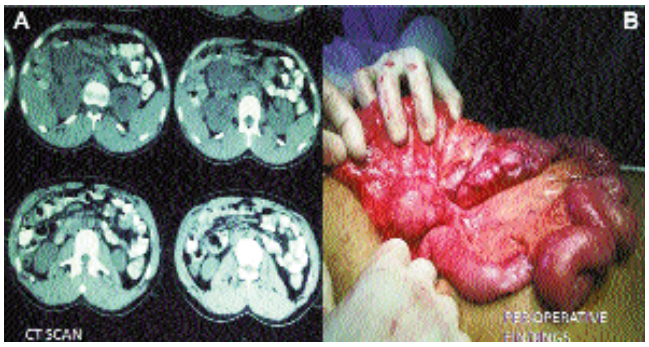

Figure-1: A) CT scan of the patient. B) Per operative findings.

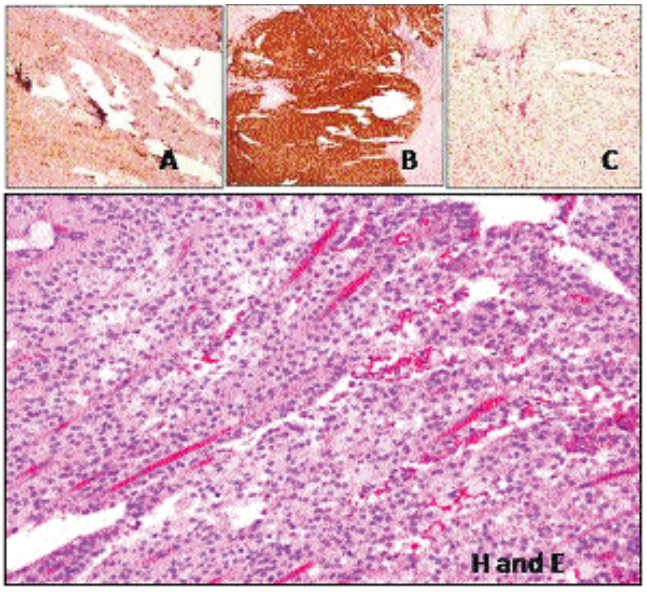

Figure-2: Fig (main) H and E stained section showing solid pseudo papillary tumor. A) CD 56 IHC stain. B) Synaptophysin IHC stain. C) progesteron stain.

The sample was sent for histopathology to a tertiary care private sector hospital. On gross examination, the specimen measured 6.0 x 4.0 x 3.5 cm. Cut surface was soft to firm with intervening areas of haemorrhage. On H & E stained sections a cellular tumour was seen comprising of solid and pseudo-papillary structures. The

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cells were fairly uniform with salt and pepper chromatin. Cholesterol clefts and foreign body type giant cell reaction was also noted. Benign pancreatic tissue was seen at the periphery. A possibility of SPPT arising in ectopic pancreatic tissue was considered (Figure-2).

Immunohistochemistry was performed which showed tumour cells to be diffusely positive for CD56 (Figure-2 a), synaptophysin (Figure-2 b) and progesterone receptor (Figure-2c).

Discussion

SPT is a rare neoplasm accounting for <3% of all pancreatic exocrine neoplasms.[1] This tumour is a diagnostic dilemma for the surgeons, and was previously known by different terminologies. The recent 2009 WHO classification of tumours of pancreas named this clinical entity as "Solid pseudo papillary tumour of pancreas", keeping in view the two most characteristic morphological findings; solid and pseudo-papillary pattern of growth.[3]

Up to 90% of cases are seen in adolescent females.[2] This is in striking contrast to our case in which tumour was identified in adolescent male. A recent study of SPPTs seen in male patients over a period of 10 years established that there is no significant difference in tumours identified in males and females as regards their histopathological characteristics and malignant behavior.[4]

The tumour is most commonly seen in the 2nd or 3rd decade of life with a mean age of 22 years.[2] Abdominal pain is the most common presenting symptom in both pancreatic as well as extra-pancreatic SPPTs.[5] However some patients are asymptomatic and SPT is identified incidentally on CT scan findings. SPPTs are grossly large tumours at presentation with a mean size of 10.3 cm.[5] These tumours are readily identified due to characteristic histological appearance, however immunohistochemistry may be done to improve accuracy and to differentiate them from neuroendocrine tumours which they closely resemble.[1]

To date 13 cases of extra pancreatic SPPTs have been reported in English literature. Of these two cases were seen in mesocolon. Three out of 13 cases showed tumours that arose from ectopic pancreatic tissue.[5] Our case is extremely rare with evidence of preexisting ectopic pancreas in mesocolon. Other sites for extra-pancreatic SPT include retro peritoneum, liver and ovaries.[1]

SPPTs have an excellent prognosis with a low malignant potential. Overall 5 year survival is 97% after complete resection.[6] Extra-pancreatic SPPTs are likely to share the same favourable histology seen in their pancreatic counterparts.[5]

Conclusion

We encountered a very rare case of SPPT arising in mesocolon of a male patient. Pathologists should be aware of unusual presentations of this tumour so that a correct diagnosis can be made readily and appropriate management imparted.

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Conflict of Interest: No.

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