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KEY WORDS:

SOLID PSEUDOPAPILLARY TUMOUR OF THE HEAD OF PANCREAS

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ABSTRACT

Solid pseudopapillary tumour (SPT) of the pancreas is a rare, low-grade malignant neoplasm predominantly affecting young women. These tumours are often discovered incidentally due to their non-specific symptoms or during imaging for unrelated conditions. This report presents a case of an SPT located in the head of the pancreas, its clinical presentation, diagnosis, surgical management, and outcome.

INTRODUCTION

Solid pseudopapillary tumour (SPT), also known as Frantz's tumour, represents less than 2% of all exocrine pancreatic tumours. First described in 1959, it typically affects young females in the second to fourth decades of life. SPTs are characterized by their indolent behaviour and favourable prognosis following complete surgical excision.

Case Presentation

A 24-year-old female presented with vague upper abdominal discomfort and a palpable epigastric mass. There were no associated symptoms such as jaundice, weight loss, or gastrointestinal bleeding. Physical examination revealed a non-tender, firm mass in the epigastric region.

Investigations

Abdominal ultrasonography showed a well-defined heterogeneous mass in the head of the pancreas. CT scan revealed a 6 cm encapsulated mass with solid and cystic components, consistent with the features of an SPT. Tumour markers including CA 19-9 and CEA were within normal limits.

Diagnosis

Based on imaging findings and clinical presentation, a provisional diagnosis of solid pseudopapillary tumour of the pancreas was made. Fine-needle aspiration cytology confirmed the diagnosis, revealing characteristic pseudopapillary structures and uniform cells with nuclear grooves.

Treatment

The patient underwent a pylorus-preserving pancreaticoduodenectomy. Intraoperatively, the tumour was well-encapsulated and confined to the head of the pancreas without invasion of adjacent structures.

Histopathological Findings

Gross examination showed a solid and cystic lesion with hemorrhagic degeneration. Microscopically, the tumour showed solid areas, pseudopapillary architecture, and uniform polygonal cells. Immunohistochemistry was positive for beta-catenin, vimentin, and CD10, confirming the diagnosis of SPT.

Outcome and Follow-up

The postoperative course was uneventful. The patient was discharged on postoperative day 7. At six-month follow-up, the patient remained asymptomatic with no evidence of recurrence on imaging.

DISCUSSION

SPTs are low-grade malignant tumours with excellent prognosis after complete surgical resection. They are distinguished by their histological appearance and immunohistochemical profile. Despite their large size, metastasis and invasion are uncommon. Surgical resection is curative in most cases, and long-term survival rates are high.

CONCLUSION

Solid pseudopapillary tumour of the pancreas, though rare, should be considered in the differential diagnosis of pancreatic masses, especially in young women. Early detection and surgical management provide excellent outcomes with minimal risk of recurrence.

REFERENCES

1. Papavramidis T, Papavramidis S. Solid pseudopapillary tumors of the pancreas: review of 718 patients reported in English literature. J Am Coll Surg. 2005.
2. Frantz VK. Tumors of the pancreas. In: Atlas of Tumor Pathology, 1959.
3. Law JK, Ahmed A, Singh VK, et al. A systematic review of solid-pseudopapillary neoplasms: are these rare lesions? Pancreas. 2014.