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CASE REPORT PEER REVIEWED | OPEN ACCESS

Dermoid cyst of pancreas: A report of an unusual case

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ABSTRACT

Introduction: Pancreatic dermoid cyst is a rare, benign germ cell tumour and part of differential diagnosis for cystic neoplasm of pancreas, where it shows a slight preference for the pancreatic head. Case Report: We report a case of dermoid cyst of pancreas in a 17-year-old female patient. Patient presented with epigastric pain, anorexia and lump in epigastric region. CECT showed a well marginated cystic lesion with tiny speck of calcification in wall and fatty component anteriorly in epigastric region in midline and towards right arising from anterior aspect of head of pancreas. The fat planes surrounding the lesion are normal. The CBD was seen lying on posterior aspect of the lesion. Conclusion: Pre-operative diagnosis is difficult and it is usually diagnosed intraoperatively or by histopathological examination of the specimen.

Keywords: Dermoid, Epigastric, Pancreatic cyst

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INTRODUCTION

Dermoid cyst of pancreas which is a mature cystic teratoma of pancreas, is a very rare mesenchymal neoplasm, with approximately 35 cases described in the world literature [1].

The clinical features are non-specific like abdominal pain, nausea, vomiting, weight loss and fatigue. Pre-operative diagnosis is difficult and it is suggested by imaging studies but confirmed by only histopathological examination.

Dermoid cysts are usually well-differentiated, true, benign cysts. They are congenital developmental abnormalities of germ cell origin derived from any of the three germ layers and may produce a wide variety of structures with different degree of differentiation, including hairs, teeth, bone, cartilage, hair follicles, sweat glands, sebaceous materials.

Dermoid cysts occur in all ages. Generally have no sex preference. They commonly found in ovaries [2]. Pancreas is extremely rare as a primary site with slight preference to pancreatic head.

Surgical resection remains the gold standard for the diagnosis and treatment.

CASE REPORT

A case of a 17-year-old female was admitted to our hospital due to epigastric pain with nausea and loss of appetite and epigastric lump. The patient had no significant past history. The physical examination demonstrated moderate tenderness in epigastric region but no evidence of an acute abdomen. Laboratory values revealed normal levels of serum amylase, lipase, tumor markers (CEA, CA 19-9, CA 125 and AFP) as well as the other hematological and biochemical investigations.

USG abdomen showed a large cystic lesion around 10x8 cm with internal echoes (size approx. 85x72x59 mm: volume approx. 193 cc) related inferior to neck and body of pancreas and medial to pancreatic head

compressing it. Lesion is seen posterior to stomach and superior to third part of duodenum. Internal echoes give hyperechoic appearance to lesion. Small calcified focus was seen in anterior wall of lesion. Lesion is seen extending inferiorly into mesentery with compressed SMA related to right lateral to lesion; multiple collaterals are seen. SMA is seen displaced inferiorly, separated from lesion.

The possibility of pseudocyst and malignant neoplasm were eliminated during surgery. The patient underwent enucleation of lesions and material was sent for histopathological examination. Macroscopic evaluation of cystic mass showed a lesion with speck of calcification and fatty components in anterior aspect of head of pancreas (Figure 1).

The patient had a favourable outcome with no complications, being discharged six days after surgery. She remained without complains.

DISCUSSION

The dermoid cyst of pancreas, also called mature cystic teratoma, is an uncommon mesenchymal neoplasm firstly described in 1918 with approx. 35 cases reported in world literature.

It can affect all age group but according to Lane et al the mean age of patient was 36.4 year. Among patient, 20 were male, 15 female. Degrate et al in a review of 33 cases, affirms that average size of lesions was 7.5 cm (ranging from 2.2 to 20 cm)

Dermoid cyst are frequently found in ovaries; but may occur in any pathway of ectodermal cell migration, typically in midline as in testes, skull, brain, mediastinum, retroperitoneum, omentum and bladder. Occurance in pancreas is very rare.

Most patient of pancreatic dermoic cyst are asymptomatic and lesions are discovered incidentally. Patient may complaint of nonspecific symptoms like nausea, vomiting, anorexia, weight loss, pain abdomen, back pain, fever etc. laboratory tests are usually unremarkable.

Pancreatic dermoid cysts are true cyst thus their wall consist of stratified squmaous epithelium and underlying connective tissue. Figure 2 shows the normal pancreatic tissue and Figure 3 shows dermoid cyst of pancreas. Their character is important to distinguish them from pancreatic pseudocyst which corresponds to 90% of cystic lesions. Dermoid cyst may contain thick, pasty, doughy sebaceous secretions, fully differentiated tissue from one or more germ cell layers including hairs, teeth, cartilage, sweat glands and sebaceous materials.

The differential diagnosis of pancreatic dermoid cyst are pseudocyst, neoplastic cyst, intraductal papillary mucinous neoplasm (IPMN) and solid pseudopapillarytumour.

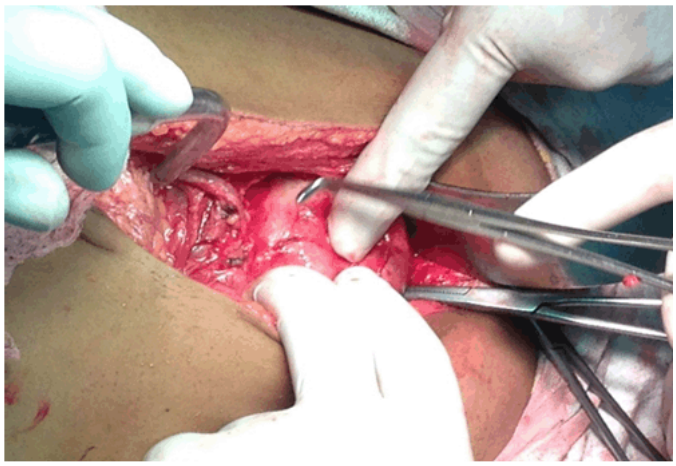

Figure 1: Dermoid cyst of pancreased.

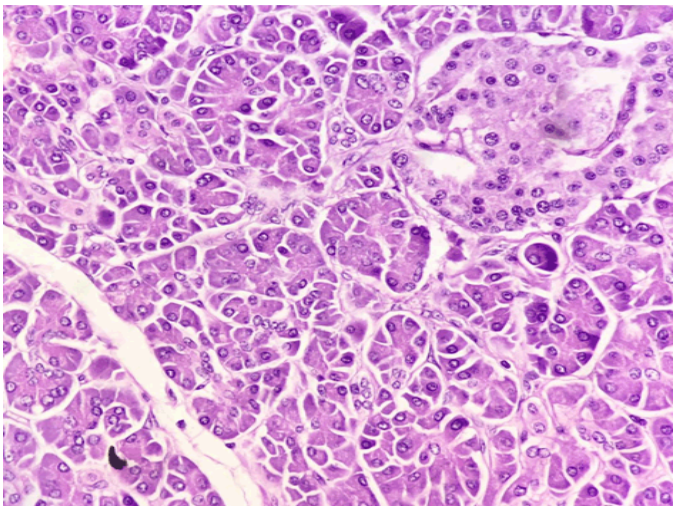

Figure 2: Histopathological view of pancreatic tissue.

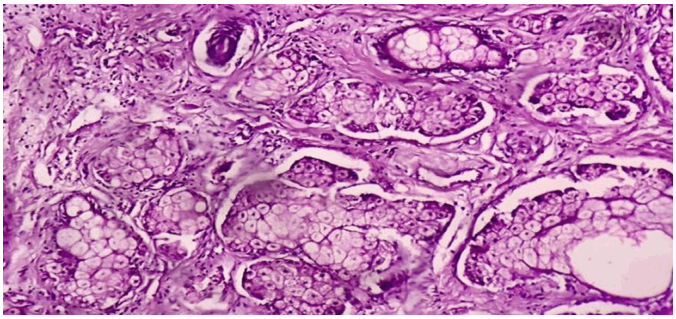

Figure 3: Histopathological features of dermoid cyst of pancreas.

Despite their benign nature,diagnosis often leads to surgical resection which is gold standard treatment for pancreatic dermoid.

Treatment of dermoid cyst consists of surgical removal. Conservative treatment has not been described and in most cases cystectomy was performed. Several factors interplay in the treatment choice: diagnostic accuracy of preoperative diagnostic tools, clinical presentation and cystic neoplasm site, type and safety of resection.

Tumor markers CEA and CA 19-9 are generally lower than those in other pancreatic cystic neoplasm but no consensus exists and further studying is necessary. In the present case, the patient presented normal levels of these and other markers.

CONCLUSION

In post-operative period patient was well with no any other further complaint.

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Author Contributions

Sanjay Singh – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Anish Kola – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor of Submission

The corresponding author is the guarantor of submission.

Source of Support

None.

Consent Statement

Written informed consent was obtained from the patient for publication of this case report.

Conflict of Interest

Authors declare no conflict of interest.