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A Rare Case of Ectopic Pancreatic Tissue in Type 1 Choledochal Cyst with Cholelithiasis and Choledocholithiasis in a 4-Year-Old Female - Case Report

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Abstract: ***This study presents a rare case of ectopic pancreatic tissue associated with a choledochal cyst in a 4 - year - old female who exhibited recurrent abdominal pain. Clinical examination revealed a firm, non - mobile mass in the right hypochondrium, and imaging studies, including USG and MRCP, indicated cholelithiasis and choledochal cyst. The patient underwent successful surgical excision of the choledochal cyst with Roux - en - Y hepaticojejunostomy, with histopathological analysis confirming the presence of ectopic pancreatic tissue. This case highlights the importance of recognizing the potential for ectopic pancreatic tissue in choledochal cysts, emphasizing the need for careful long - term follow - up due to the increased risk of pancreatic malignancy even post - cystectomy.***

Keywords: Ectopic pancreatic tissue, choledochal cyst, pediatric surgery, histopathology, pancreatic malignancy

1. Introduction

Ectopic pancreatic tissue is defined as occurrence of pancreatic tissue outside the usual site of pancreas without any physiological, biochemical, anatomical or neuro - vascular connection with the original gland.1

The relationship of ectopic pancreatic tissue associated with choledochal cyst is extremely rare condition.2

Ectopic pancreatic tissue can be diagnosed at all ages, males are out of which males are frequently associated but a higher incidence of ectopic pancreas is found in gall bladder of females and most of the cases reported in literature lies between the thirty to sixty years of life.5

The purpose of this study is to present the clinical, histopathological features of ectopic pancreatic tissue associated with choledochal of 4 - year - old female.6

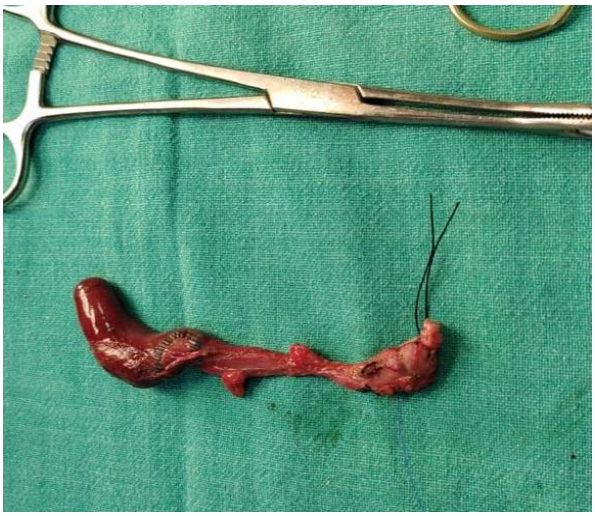
2. Case Report

4 year old female presented in opd with complaints of recurrent abdominal pain for last fews days. On inspection of abdomen, a small mass was present over epigastric region with no visible peristalsis. On palpation, mass was felt in right hypochondrium which was firm in consistency and nonmobile in nature. on percussion tympanic note present over it with no fluid thrill and shifting dullness. all hernia sites appear to be intact with normal bowel sounds. She had history of recurrent cholangitis.

Her hematological investigation, LFT and CBC within normal limits during this admission. Mildly elevated amylase and lipase.
USG whole abdomen showed: cholelithiasis choledocholithiasis with ? Type 4 choledochal cyst.

X - ray chest was normal. MRCP showed cholelithiasis with intra as well as extra hepatic biliary dilatation with choledocholithiasis, the dilatation of the common bile duct is giving fusiform cystic appearance – likely consistent with type1C choledochal cyst with narrowing at distal end of CBD causing back pressure changes and mild to moderate dilation of IHBR and mild dilatation of right and left hepatic ducts.

Patient underwent Surgery: Type 1 Choledochal cyst excision with Roux en y hepaticojejunostomy. Post operative period uneventful. Child discharged on pod7.



Histopathology: confirmed the rare finding of ectopic pancreatic tissue in subserosal layer of choledochal cyst.

Microphotograph of choledochal cyst show columnar epithelium covered fibromuscular tissue wall with mild to moderate chronic inflammation and periphery show heterotopic pancreatic tissue in subserosa.

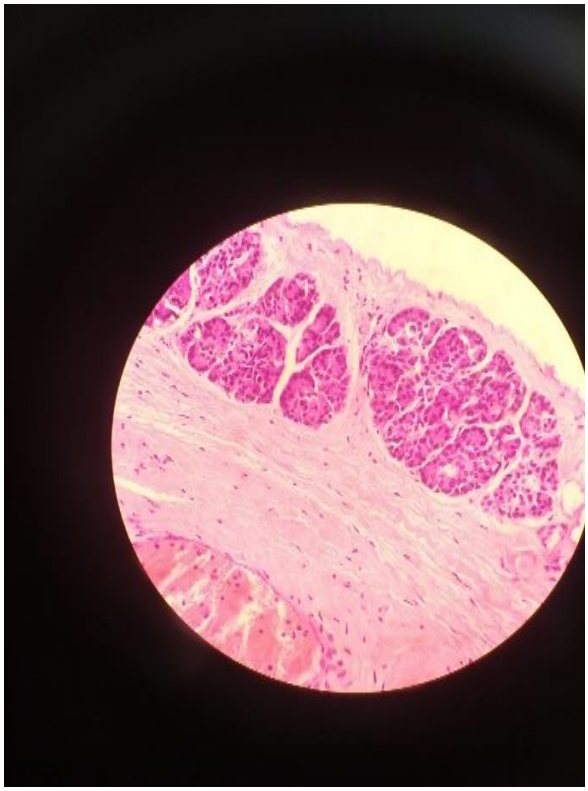


Figure 1: HE stain showing fibrosed wall of Choledochal cyst with presence of Ectopic Pancreatic tissue. (10x)

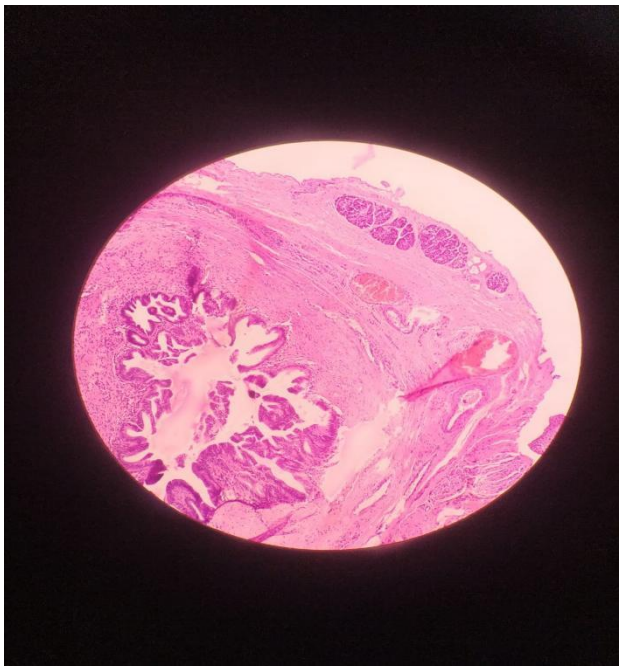


Figure 2: HE stain of Ectopic pancreatic tissue showing acinar glands with presence of ductal epithelium. (40x)

3. Discussion

The proposed etiological factor for the development of choledochal cyst are due to anomalous arrangement of the pancreatico - biliary junction. The classical triad of abdominal pain, jaundice, and palpable mass which is usually connected with signs and symptoms of biliary tract obstruction.

Cholelithiasis with choledocholithiasis always warrants MRCP in children to rule out choledochal cyst.

Ectopic pancreatic tissue in association with CDC is a very rare finding ONLY THREE REPORTED CASES IN LITERATURE.

The complications of choledochal cyst include formation of hepatic abscess, recurrent cholangitis and pancreatitis, and calculus formation. if choledochal cyst is untreated than it produce hepatic damage, which finally progress to liver cirrhosis and portal hypertension.

These children are at high risk of pancreatic cancer in future even after complete excision. Hence close follow up is recommended.

4. Conclusion

To conclude, the ectopic pancreatic tissue associated with choledochal cyst may be evidence of its embryological association and its greater risk for development of further complications, especially development of pancreatic malignancy. The present case should be considered for long term follow up as doing cystectomy will not provide full protection against the development of pancreatic malignancy.

References

[1] Kondi - Paphiti, A., Antoniou, A. G., Kotsis, T., & Polimeneas, G. (1997). Aberrant pancreas in the gallbladder wall. European radiology, 7 (7), 1064 - 1066.
[2] González, C. C., González, C. F., Zurita, S. M., Cabrera, A. M., & García, M. J. (2013). Ectopic pancreas in the gallbladder. Cirugia espanola, 91 (2), 130 - 131.
[3] Zarand, A., Bajtai, A., Baranyai, Z., Dede, K., & Jakab, F. (2011). Inflammation of ectopic pancreatic tissue in a Meckel's diverticulum causing acute abdominal symptoms: a case report and review of the literature. International journal of surgical pathology, 19 (3), 359 - 363
[4] Sato, A., Hashimoto, M., Sasaki, K., Matsuda, M., & Watanabe, G. (2012). Elevation of pancreatic enzymes in gallbladder bile associated with heterotopic pancreas. A case report and review of the literature. JOP. Journal of the Pancreas, 13 (2), 235 - 238.