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Ectopic Pancreas in The Gallbladder Associated With Chronic Chalculous Cholecystitis: Case Report

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Case Report

History

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ABSTRACT

Heterotopia is defined as the presence of a tissue outside of its natural location. Ectopic or heterotopic pancreatic tissue is a form of choristoma and is considered an embryological abnormality. Stomach, duodenum, jejunum and spleen are common localizations. The gallbladder is a very rare localization. In this case report, ectopic pancreatic tissue observed in the gallbladder of a 41-year-old patient who is diagnosed with chronic calculous cholecystitis who underwent surgery is discussed in the light of current literature.

Keywords: Chronic calculous cholecystitis, ectopic pancreas, gall bladder

Kronik Taşlı Kolesistit Hastasında Safra Kesesinde Ektopik Pankreas Dokusu: Olgu Sunumu

Olgu Sunumu

Süreç

Geliş: 12/07/2023
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ÖZET

Heterotopi bir dokunun doğal yerleşim yeri dışında lokalize olmasıdır. Ektopik veya heterotopik pankreas dokusu bir koristom şeklidir ve embriyolojik anomalilerden sayılmaktadır. Mide, duodenum, jejunum ve dalak sık görülen lokalizasyondur. Safra kesesi ise oldukça nadir bir lokalizasyondur. Bu olgu sunumunda 41 (kırk bir) yaşında kronik taşlı kolesistit tanısı konularak opere edilen hastanın safra kesesinde izlenen ektopik pankreas dokusu, mevcut literatür bilgileri ışığında tartışılmıştır.

Anahtar Kelimeler: Kronik taşlı kolesistit, ektopik pankreas, safra kesesi

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Introduction

Ectopic or heterotopic pancreatic tissue is defined as pancreatic tissue that has no vascular, neural or anatomical connection with the pancreas. It is considered an embryological developmental abnormality and is thought to develop during the fusion of the dorsal and ventral pancreas.[1] Ectopic pancreatic tissue is frequently encountered in the stomach, duodenum, jejunum and spleen in autopsy series or incidentally.[2,3] On the other hand, gallbladder localization is quite rare and has been reported in a small number of case reports.[1-7]

Case Report

A forty-one (41) year old male patient applied with complaints of abdominal pain, nausea and bloating. On physical examination, tenderness to palpation was observed in the right upper abdomen. In blood tests, AST (22 µ /l), ALT (29 µ /L) and GGT (22 µ /l) levels were within normal limits whereas ALP (113 µ /L) was elevated. In the ultrasonographic examination, several stones were observed in the gallbladder, and the largest one was 12 mm in diameter. The patient was diagnosed with chronic calculous cholecystitis and underwent laparoscopic cholecystectomy.

Pathological examination revealed that the gallbladder was 45 mm long and 25 mm in diameter. The mucosal surface was white-grey in colour, and the wall thickness was 8 mm at its thickest point. A solid nodule with a diameter of 5 mm, was observed in the neck area of the gallbladder.

In microscopic evaluation focal mucosal ulceration of the gallbladder and inflammation rich in mononuclear cells was noted in lamina propria. Hypertrophy was observed in the muscular layer. Focal areas of fibrosis were seen. These findings were consistent with chronic cholecystitis. In addition, pancreatic tissue was observed in the gallbladder, separated from the surrounding tissue by a smooth border (Figure 1) and without causing significant inflammation around it. The ectopic pancreatic tissue was 5 mm in diameter and was located under the muscular layer. Duct and acini were observed in the pancreatic tissue (Figure 2). With these findings, a diagnosis of ectopic pancreas was made in addition to chronic cholecystitis.

Discussion

Ectopic pancreatic tissue is considered an embryological developmental abnormality and is thought to develop during the fusion of the dorsal and ventral pancreas.[1,2] On the other hand, there is information that abnormalities in the Notch signalling pathway are associated with ectopic pancreas.[2,7] Although it is relatively common in the stomach, small intestine and Meckel's diverticulum, it is rare in the gallbladder. It was first reported in the gallbladder by Otschkin in 1916, and more than 30 cases have been reported since then.[5]

Most patients are over the age of forty and it is more common in women.[5] The sizes of heterotopic pancreatic tissue in the gallbladder reported in the literature vary between 1 mm and 10 mm.[3] It can be located in the fundus, body and neck regions of the gallbladder. Approximately half of the patients have gallbladder stones.[5] Microscopically, according to von Heinrich classification; those containing acinus, ductus and islets of Langerhans are Type 1; those containing only ducts and acinus are type 2; Those containing only proliferating ducts without containing endocrine elements and exocrine acini are classified as Type 3.[1-7]

In our case, the pancreatic tissue was 5 mm in diameter and was located in the neck of the gallbladder. Histologically, it contains acini and ductus. Therefore, it can be considered type 2 according to the von Heinrich classification. Although the clinical significance of ectopic pancreatic tissue is not clearly known, tumours of pancreatic origin can develop in these ectopic tissues, and those located in the neck of the gallbladder may cause obstruction.[7]

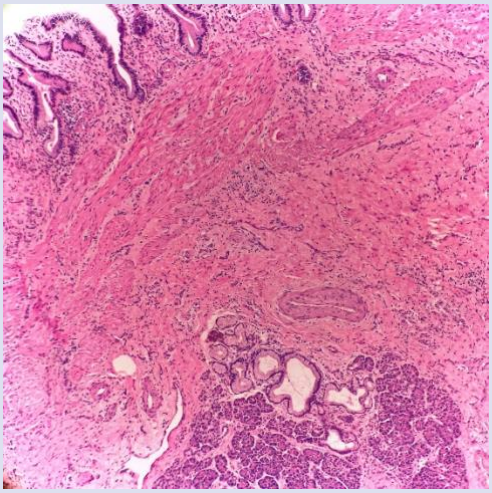

Figure 1: Ectopic pancreatic tissue under the muscular layer in the gallbladder (H&E 40)

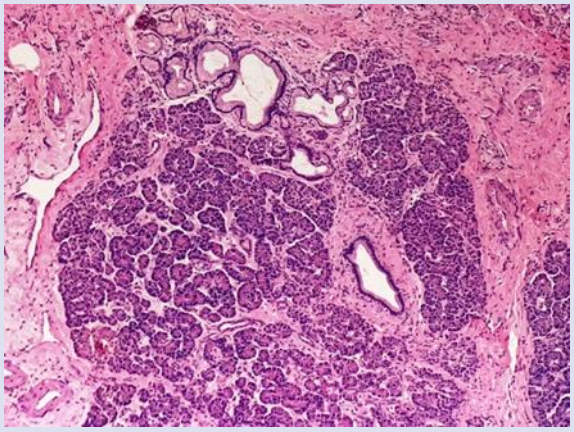

Figure 2: Pancreatic ducts and acini (H&E x400)

References

1. Chatziantoniou G, Tzikos G, Ioannidis A, Loukousia A, Raptou G, Michalopoulos A, Paramythiotis D. The rare entity of ectopic pancreatic tissue in the gallbladder: A case report. Ann Med Surg (Lond). 2022 Apr 29;77:103698. doi: 10.1016/j.amsu.2022.103698.
2. Lauricella S, Dell'Ovo A, Coppola A et al. Heterotopic Pancreatic Tissue in the Gallbladder: a Report of a Very Rare Case. J Gastrointest Cancer. 2021 Sep;52(3):1175-1179. doi: 10.1007/s12029-021-00663-5.
3. Elhence P, Bansal R, Agrawal N. Heterotopic pancreas in gall bladder associated with chronic cholecystolithiasis. Int J Appl Basic Med Res. 2012 Jul;2(2):142-3. doi: 10.4103/2229-516X.106360.
4. Şerboiu CS, Aliuș C, Dumitru A, Țăpoi D, Costache M, Nica AE, Alexandra-Ana M, Antoniac I, Grădinaru S. Gallbladder Pancreatic Heterotopia-The Importance of Diagnostic Imaging in Managing Intraoperative Findings. Medicina (Kaunas). 2023 Aug 1;59(8):1407. doi: 10.3390/medicina59081407.
5. Aborajooh E, Ghayada IKK, Lafi YMI. Heterotopic Pancreas in the Gallbladder: Case Report and Literature Review. Case Rep Med. 2021 Jan 30;2021:6611291. doi: 10.1155/2021/6611291.
6. Al-Janabi MH, Ismail L, Wassouf MY, Sulaiman J, Salloum R, Al-Shehabi Z. Heterotopic pancreatic tissue in the gall bladder neck and lymph node surrounding cystic duct identified during cholecystectomy for chronic calculous cholecystitis: a rare case report from Syria. Oxf Med Case Reports. 2022 Jun 23;2022(6):omac068. doi: 10.1093/omcr/omac068.
7. Weppner JL, Wilson MR, Ricca R, Lucha PA Jr. Heterotopic pancreatic tissue obstructing the gallbladder neck: a case report. JOP. 2009 Sep 4;10(5):532-4.