Heterotopic pancreas located in a gallbladder associated by cholelithiasis: case report

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RUNNING TITLE

Heterotopic pancreas in a gallbladder

KEYWORDS

pancreas, cholelithiasis, ectopia, heterotopic pancreas, gallbladder

WORD COUNT

717

CONFLICT OF INTERESTS

no conflicts of interest

ABSTRACT

Heterotopic pancreas (HP) is defined as the presence of pancreatic tissue that has neither anatomical nor vascular continuity with the main body of the pancreas. We present an extremely rare case of HP found in a 43 year-old woman’s gallbladder with cholelithiasis. Its pre-operative diagnosis is very difficult and HP usually is diagnosed at pathological examination.

INTRODUCTION

Cholelithiasis is one of the most common reasons for visit in a general surgery clinic. Gallstones may be asymptomatic even for years. They can occur simultaneously with, for instance, gallbladder polyps or what is very rare, an ectopic pancreas. Ectopia is a displacement or a malposition of an organ or a tissue. Heterotopic pancreas (HP) is defined as the presence of pancreatic tissue that has neither anatomical nor vascular continuity with the main body of the pancreas (12). Herein we present a case of HP found in a 43 year-old woman’s gallbladder.

CASE REPORT

A 43 year-old woman was admitted to the Surgical Department as scheduled for an elective laparoscopic cholecystectomy. She reported sporadic flatulence after meals, apart from that she had no
symptoms. On physical examination there was no tenderness or pain, Murphy’s sign was negative. 2 years prior to the surgery she had had abdominal ultrasonography done before long journey abroad. Examination revealed cholelithiasis. After one-year journey she had ultrasonography repeated, which confirmed cholelithiasis, with no gallbladder wall thickening, moreover 8x7mm hypoechoegenic structure located closer to the fundus, suggestive as a pseudopolyp, was described. After that she decided to report to a surgeon. Laboratory data revealed no abnormalities (a direct bilirubin of 0.09 mg/dl (reference range 0.0 – 0.2 mg/dl), AST equal to 22 U/L (reference range 1 – 40 U/L) and ALT level was 15 U/L (reference range 1 – 45 U/L). Other laboratory values were within the reference limits. Laparoscopic cholecystectomy was performed, postoperative period was uneventful and the patient was discharged the next day after the procedure.

In the pathological examination the macroscopic findings were as follows: gallbladder was 6 cm long and 0.3 cm diameter. Gallstones were present in the gallbladder lumen. Moreover, there was intramural swelling located in the corpus (1,8x1,2 cm) and a nodule of 0,3 cm diameter in the neck. Microscopic examination revealed that described swelling is a heterotopic pancreatic tissue, without features of dysplasia. The weave consisted only of an exocrine pancreatic tissue (Figure 1, 2 and 3). The nodule turned out to be reactive. The remaining sections had features of chronic cholecystitis.

DISCUSSION

HP can occur anywhere in the gastrointestinal tract (1), however presence of HP in a gallbladder is extremely rare (2). According to literature, HP can be found in all age groups (3), with male predominance (4, 5, 6). In our case, the patient was a 43 year-old woman, with clear diagnosis of cholelithiasis confirmed in an ultrasonography examination.

HP is usually asymptomatic, although it may produce symptoms that are not peculiar, like epigastric pain or abdominal fullness (7). In a majority of reported cases HP coexisted with gallstones (8, 9), just like in our case.

It is very difficult to make a diagnosis prior to histological examination following cholecystectomy. Due to its very uncommon occurrence, it is not considered in the differential diagnosis. There are no radiological standards that would suggest presence of HP. In our case, pseudopopyl described in an ultrasound turned out to be HP, just like in the case described by Klimis T. et al (10).

Features of dysplasia or malignant neoplastic changes are very rare in HP (13, 14). The majority of HP has benign behaviour, so it was in our case. Half of HP that had developed in gallbladder was found in the neck (11). In our case it was located in the corpus, near the fundus. In 75 % of cases it can be encountered in the submucosa (15) and seldom extends into the muscular or subserosal layers. Microscopically, Von Heinrich classified HP into 3 types (13,17): our case was considered to be type 2, basing on that classification (ectopic tissue with incomplete or lobular arrangement (only a few acini and multiple ducts). Endocrine elements are absent.). As long as macroscopic image is concerned, that type of lesions are usually described as firm, round, single, yellow nodules, measuring from several millimetres up to 5 cm (2, 3, 15, 16). In our case it was 1,8x1,2 cm round, intramural, nodule.

The only curative treatment is surgical removal of gallbladder, although it is required only in symptomatic patients (18).

CONCLUSION

HP is a very rare entity that needs further exploration. Its pre-operative diagnosis is extremely difficult and HP usually is diagnosed at pathological examination. Surgical removal is the only curative method.

CITE THIS AS

MEDtube Science 2015, Mar 3(1), 32-34

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FIG. 2. INTRAMURAL ECTOPIC PANCREATIC TISSUE (H&E)

FIG. 3. ECTOPIC PANCREAS IN THE GALLBLADDER. EXOCRINE PANCREATIC TISSUE (H&E)

BIBLIOGRAPHY


