CASE REPORT

21(87), September - October, 2017

ISSN
2321–7359
EISSN
2321–7367

Medical Science

Incidental finding of an ectopic pancreas in the jejunum: a case report

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Article History
Received: 04 June 2017
Reviewed by: 4 reviewers
Accepted: 11 July 2017
Published: September-October 2017

Citation
Malibary N. Incidental finding of an ectopic pancreas in the jejunum: a case report. *Medical Science*, 2017, 21(87), 224-226

ABSTRACT

The human embryology and anatomy still overwhelms us with different anatomic variants of different organs. Here, we present an asymptomatic jejunal heterotropic pancreas. A 61 year-old French white male presenting with complicated diverticular disease. A jejunal mass was detected intra-operatively, which turns out to be an ectopic pancreas. Ectopic pancreas or heterotropic pancreas is an uncommon pathology. Different locations on the alimentary tract have been described in the literature. Macroscopic identification is merely impossible. The knowledge of such an entity and its capability to complicate, might add an insight to our list of differential diagnosis when dealing with abdominal cases.

Keywords: Ectopic pancreas, heterotropic pancreas, jejunal mass, case report

1. INTRODUCTION

Ectopic pancreas or Heterotopic pancreas is defined as the presence of pancreatic tissue without any anatomic or vascular continuity with the pancreas. Its incidence in the literature is between 0.2 and 0.5% at laparotomy [1,10]. Different localizations have been described in the literature, including; the stomach, small and large bowel, mesentery, skin, and even the gall bladder. The stomach is the most common localization 25-38% [1,2,10]. The work has been reported in line with the SCARE criteria [12].

2. CASE PRESENTATION

A 61-year-old male presented with dysuria, and the appearance of pneumaturia fourteen days later. Urine culture was sterile, and the patient was treated empirically by Ciprofloxacine for 10 days. A CT scan showed signs of diverticulitis complicated by a sigmoido-vesical fistula, documented by the presence of air in the urinary bladder. No other abnormalities were found. The patient was admitted 3 weeks after the initial pneumatouria for an elective 2-stage sigmoidectomy by laparotomy. A left hemi-colectomy with a terminal colostomy (Hartmann procedure) was done with no intra-opeartive difficulties. During the manipulation of the small intestine, we found an ill-defined cystic mass in the antimesenteric side of the jejunum, 40cm for the ligament of Treitz, with no associated lymph nodes or retraction of the mesentery. The mass measured 2 cm in its greatest diameter. A resection - anastomosis of a 5cm segment of the jejunum was performed. His hospital stay was short and uneventful. The analysis of the mass showed an ectopic pancreas embedded in the jejunal wall, with the presence of islet cells and ducts, and the colon showed no signs of malignancy.

3. DISCUSSION

Almost all patients with an ectopic pancreas are asymptomatic, while symptomatic patients present with a wide array of complaints, either by vague abdominal pain [3] or by complications, such as, and not limited to, bleeding, pancreatitis, intussusception and bowel perforation [4,5,11]. Even a malignant transformation has been described by Yusuke Yamaoka [10]. The majority of cases are discovered incidentally, either by unrelated radiological or endoscopic tests, or intra-operative findings. [1,3]

Modalities of identification other than histological examination include: MRI, CT scan [6], video capsule [3,7]. Endoscopic Ultrasound (EU) is the most sensitive exam for accessible lesions since it can diagnose gastric and duodenal lesions [8], but has limited access to other locations. The advantage of EU is the ability to perform biopsy, and visualize the classical pattern of pancreatic tissue and ducts. MRI and CT scans can localize distant pathological masses but with no certitude of its nature. Using only MRI, Jang KM [6] succeeded in differentiating ectopic pancreas from other submucosal tumors in 15 patients with previously documented ectopic pancreas in their upper GI tract.

Heinrich classified the ectopic pancreas into three histological types, which was later modified by Gasper-Fuentes into four, as follows: [1]

Type I: typical pancreatic tissue with acini, ducts, and islet cells similar to the normal pancreas. Our patient had this subtype.
Type II (canalicular variety): pancreatic ducts only.
Type III (exocrine pancreas): acinar tissue only.
Type IV (endocrine pancreas): islet cells only

We were able to find two theories of dissemination, which are: remaining of the pancreatic evaginations in the duodenum during embryogenesis which could extend to the rest of the GI tract, or pancreatic metaplasia of endodermal tissues during embryonic life [9]. Heterotropic pancreas is still a rare finding, with unpredicted outcomes; a formal recommendation of excision of asymptomatic lesions has not been retained yet, although in case of a complication, a surgical excision is curative.[4,5,10]

4. CONCLUSION

Ectopic pancreas or heterotropic pancreas is an uncommon pathology. Different locations on the alimentary tract have been described in the literature. Macroscopic identification is merely impossible. The knowledge of such an entity and its capability to complicate might add an insight to our differential diagnosis when dealing with abdominal cases. Formal excision of asymptomatic lesions is not yet recommended in the literature.

SUMMARY OF RESEARCH

1.Many anatomic variants exist in nature, a lot are still to be discovered and studied.

2.Ectopic pancreas is an interesting variant which spreads to almost all organs
3.Complications are similar to that of a normal pancreas, in addition to the mass effect.
4.No formal recommendation of excision, although curative, is advised in the literature.

DISCLOSURE STATEMENT

No funding was required for this article

AKNOWLEDGMENT

None

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