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Bowel obstruction secondary to an ectopic pancreas in the small bowels: About 2 cases

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ABSTRACT

INTRODUCTION: Ectopic pancreas is most commonly found in the jejunum and stomach. Most patients remain asymptomatic, and the diagnosis is usually made at autopsy or incidentally. We report here 2 cases of intestinal occlusion, secondary to an ectopic pancreatic tissue. Both cases were managed successfully by laparoscopy and laparotomy with subsequent segmental intestinal resection.

CASE PRESENTATIONS: Case 1 – An elderly patient presented to the ER because of intestinal occlusion. Paraclinical investigations were consistent with occlusion, with ileal suffering signs on CT-scan. After laparotomy and segmental intestinal resection were done, histopathalogy showed evidence of ectopic pancreas obstructing the intestinal lumen. Case 2 – A young man presented to the ER with acute onset of epigastric pain. signs of peritoneal irritation. Ct-scan showed evidence of small bowel intussusception. Exploratory laparoscopy was done, and confirmed the diagnosis. The intussusceptum was at the level of the proximal jejunum. The suffering intestinal part was exteriorized and then resected. Histopathology was consistent with an ectopic pancreas.

DISCUSSION: Symptomatic ectopic pancreas is extremely rare. Symptoms may include, bleeding, intestinal occlusion and intussusception. Few similar cases have been reported in the literature, and the current ones are to be added.

CONCLUSION: As mentioned above, ectopic pancreatic tissue rarely causes symptoms. We presented 2 cases that presented 2 possible complications secondary to this pathology. Both cases were managed successfully.

1. Introduction

Defined as a pancreatic tissue lacking anatomical continuity with the main pancreas, ectopic pancreas is usually found in the stomach, duodenum and jejunum [1,2]. Some other locations, such as the retroperitoneum [3], have been reported. Ectopic pancreas is a rare entitiy on laparotomy, occurring in about 0.2% [2].

We report here 2 patients with a common history of abdominal pain that was associated with acute onset of intestinal obstruction. In both patients, surgery with subsequent resection was needed. Histopathology reports were consistent with pancreatic tissue in the submucosal part of the small bowels.

2. Patient and methods

2.1. Case 1

A 72 year-old man presented to the ER, because of acute onset of nausea, vomiting, gradual abdominal distention and severe abdominal pain. On physical exam, there were no signs of peritoneal irritation. Blood tests were consistent with leukocytosis ($17{,}000/mm^3$), and a high CRP level. CT-scan showed signs of mechanical obstruction, with some features of intestinal suffering (Fig. 1) .The patient was sent to the Operating room after he had signed the informed consent. Upon laparotomy, a well circumscribed mass about 100 cm proximal to the ileo-caecal junction, was found as the cause of this obstruction. A segmental resection was performed. The post-operative course was uneventful, and the histopatholgy exam was consisted with a submucosal pancreatic tissues, organized in clusters (Fig. 2).

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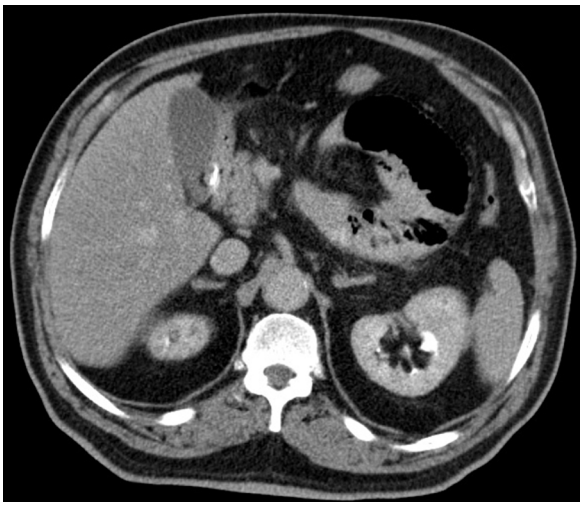

Fig. 1. Ct-scan showing bowel obstruction.

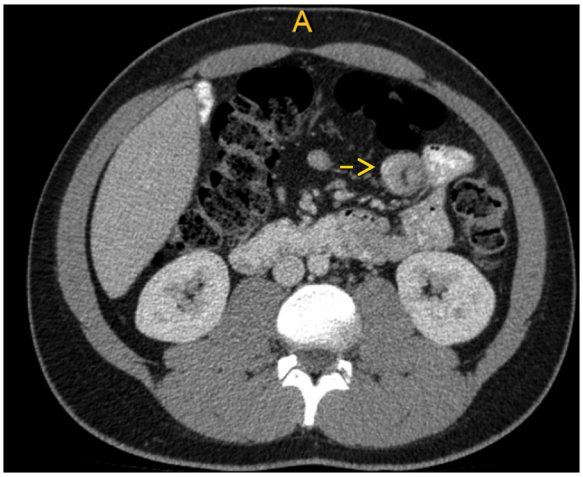

Fig. 3. CT-scan showing intestinal suffering. The thickened layer (yellow arrow) denotes the intussusceptum, that was distal to the suffering intestinal segment. A: anterior part of the abdomen.

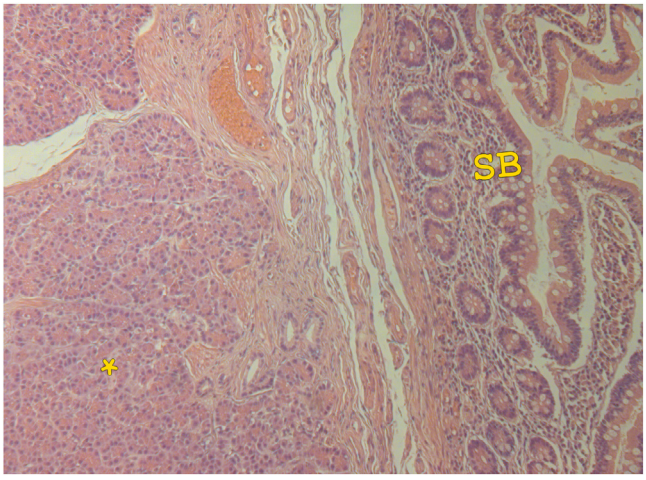

Fig. 2. H&EX20 showing pancreatic acini (asterisk) in the submucosal intestinal part (SB).

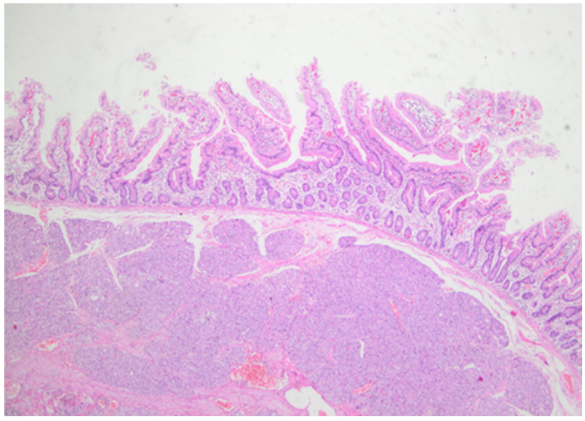

Fig. 4. Showing the ectopic pancreatic acini in the submucosal layer.

2.2. Case 2

A 24 year-old healthy man presented to the ER for recurrent episodes of epigastric pain associated with nausea and vomiting. On physical exam there were no signs of peritoneal irritation. Laboratory results were within normal ranges. CT scan showed layering effect on the small bowel consistent with enteroenteric intescusuption (Fig. 3). The patient was sent to operating room after he had signed the informed consent. Upon diagnostic laparoscopy there was a jejuno-jejunal intussusception and well circumscribed mass on the jejunum about 20 cm from the ligament of treitz. A segmental resection was performed. The post op course was uneventful and the histopathological exam was consistent with heterotopic pancreatic tissue on the small bowel (Fig. 4).

It's noteworthy mentioning, that both cases were reported in line with the SCARE criteria [11].

3. Discussion

Ectopic pancreas is congenital anomalies, in which pancreatic tissues lacking anatomical continuity with the pancreas, are found anywhere within the abdominal cavity [1].

The incidence of ectopic pancreas (EP) varies between 0.5–3.7% on autopsy studies [8]. It is an extremely rare finding at laparotomy, with an incidence of 0.2% [2]. The preoperative diagnosis is difficult, even impossible. Patients usually present with vague abdominal pain [8–10] or with signs of obstruction. In 3 cases of gastric EP, preoperative diagnosis was consistent with GIST [8,9]. In these 3 cases, patients presented signs of non-specific vague abdominal pain, and the diagnosis was made only post-operatively. In Some papers, EP were associated with pancreatitis, carcinoid tumors and rheumatologic conditions [9].

Regarding its association with intestinal obstruction, few similar cases have been reported in the literature [4–7,10]. In two cases, the obstruction was at the jejunal level [4,6], and in two other patients it was at the level of the ileum [5,7]. Laparotomy was performed on emergency basis in two cases [5,7], where intussusception [5] and peritonitis [7] were diagnosed. In a young patient, EP caused gastric outlet obstruction, and patient lost about 15 kg in a short period of time [10]. In about all cases reported in the literature, surgery was adopted and showed good results. It's the best therapeutic option, for both, symptoms palliation and definitive diagnosis, especially to rule out malignant conditions. Regarding our cases, both patients presented symptoms of intestinal obstruction, however, in one patient the occlusion was mechanical and situated distally, whereas in the other, the EP served most probably as an intussusceptum. In both cases,definitive diagnosis was made post-operatively. Patients have had an uneventful post-operative course.

4. Conclusion

EP are rare condition, and symptomatic ones, causing intestinal occlusion are even rarer. Both cases were diagnosed as intestinal occlusion and managed accordingly, and in both patients, the diagnosis was made after resection of the affected bowel segments. Preoperative diagnosis is impossible, and in some cases reported in the literature, malignancy has been suspected. Surgery is the best treatment option, for both, symptoms palliation and definitive histological diagnosis.

Conflict of interest

The authors have nothing to disclose.

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