A case report of incidental ectopic pancreatic tissue during laparoscopic appendicectomy

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ABSTRACT

INTRODUCTION: Ectopic or heterotopic pancreas is a congenital disorder defined as abnormally located pancreatic tissue found outside the pancreatic frame. It is a rare entity that occasionally causes symptoms depending on its location.

PRESENTATION OF CASE: We present the case of an incidental finding of proximal jejunal ectopic pancreas in a middle-aged woman presenting with appendicitis.

DISCUSSION AND CONCLUSION: Although rare it is necessary to be aware that jejunal ectopic pancreas can lead to jejunojejunal intussusception. Although diagnostic tools are emerging, pre operative diagnosis is difficult and resection is the management of choice of the incidentally found lesion.

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1. Introduction

Ectopic or heterotopic pancreas is a congenital disorder defined as abnormally located pancreatic tissue found outside the pancreatic frame. The reported incidence is 0.5–13% in post mortem studies and is discovered in 0.5% of upper abdominal laparotomies. [1,2] The first reported case was documented in 1729 by Schultz and it has since been shown to possess a genetic determination and physiological function almost identical to normal pancreatic tissue. [1] It is believed to result from the separation of small components of pancreatic tissue during the rotation of the foregut and fusion of the dorsal and ventral pancreatic buds. It can present at any age of life but is most common between the ages of 50–60 years and has male to female predominance of 3:1. It is rare in paediatric cases with only a few case reports in the literature. The usual locations of heterotopic pancreas are in the stomach in approximately 30% cases, the duodenum in 17–36% and the jejunum in 15–22% of cases. Other unusual sites are the oesophagus, gallbladder, common bile duct, ampulla of Vater, Meckel’s diverticulum, mesocolon, umbilicus, small bowel mesentry, spleen, mediastinum and the fallopian tubes. [1] The two most widely known histogenetic theories are based on the fetal migration of pancreatic cells and secondly on the penetration of immature gastric mucosa inside the submucosa followed by its pancreatic metaplasia. We report a case of a 46-year-old female who had an incidental finding of ectopic pancreatic tissue during laparoscopic appendicectomy. This case is reported in line with the SCARE criteria. [3]

2. Case presentation

A 46-year-old otherwise well woman presented to the Emergency Department at our institution with a clinical picture consistent with acute appendicitis. She also described some sporadic episodes of central and upper abdominal pain over a five-year period which appeared completely unrelated. She was scheduled for a laparoscopic appendicectomy. The Appendix appeared mildly inflamed and was removed without incident. Before concluding the laparoscopy the other abdominal viscera including the small bowel were examined and a small exophytic lesion was found on the antimesenteric border of the proximal jejunum. (Fig. 1) The lesion had an irregular nodular border and was cream pink in color. Given the uncertain nature of the pathology an upper midline laparotomy was performed to resect the lesion. A wedge excision and side to side stapled anastomosis was performed. The patient recovered well and was discharged on the third post operative day. Histopathology revealed a 2 × 1.5 cm piece of intramural ectopic pancreatic tissue containing both endocrine and exocrine features. The patient was seen in surgical outpatient’s clinic and reports that her episodic upper and central abdominal pain has now resolved.

3. Discussion

Ectopic pancreatic (EP) tissue can be found anywhere in the alimentary tract and other viscera, but occurs frequently in the.
stomach, duodenum and jejunum. Patients with heterotopic pancreatic tissue can be asymptomatic with 41–66% found incidentally at operation for other surgical pathologies. [1,2] Studies have shown that 33–47% are symptomatic with clinical features dependent upon size, location and association with another disorder. Such symptoms and signs include epigastric pain, abdominal fullness, change in bowel habit and vomiting. [2] Complications of EP include gastric outlet, intestinal or common bile duct obstruction, intussusception and bleeding. [5,6] Moreover cases exist in the literature of EP being the leading point of intussusception in children and adults and the source of near fatal bleeding in Meckel’s diverticulum which contain ectopic pancreatic tissue. [4] The pre operative diagnosis of heterotrophic pancreas is difficult and seldom made in the absence of intussusception or obstruction. There are however some reports now in the literature describing ectopic pancreas in the small bowel using capsule endoscopy and double balloon enteroscopy. [7] The treatment of choice for the incidental finding of ectopic pancreas is surgical resection. When ectopic pancreas is found coincidentally during surgery for other abdominal conditions resection should be carried out. [4] Intra operative frozen section can be helpful however may not always lead to the correct diagnosis and surgeons should be aware that ectopic pancreas in the small bowel may be associated with endocrine tumour and carcinoma.

4. Conclusion

We present the case of an incidental finding of proximal jejunal ectopic pancreas in a middle-aged woman presenting with appendicitis. Although rare it is necessary to be aware that jejunal ectopic pancreas can lead to jejunoejunal intussusception although unlikely. Although diagnostic tools are emerging, pre operative diagnosis is difficult and resection is the management of choice of the incidentally found lesion.

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Conflicts of Interest

I declare no conflict of interest in the reporting of this case study.

Funding Source

I declared that there are no study sponsors in the reporting of this case study.

Ethical Approval

Case report is exempt from ethical approval from our institution. All patient’s identifiers are removed from this report.

Conent

Informed consent was obtained from the patient for publication of this case report and accompanying images. All identifying details of patient are omitted in the report. A written consent is available for review by the journal’s editor in chief when requested.

Author Contribution

All authors contributed to writing the paper, including data collection and analysis and interpretation.

Guarantor

Dr Trent Cross.

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