

Considering the Histologic and Anatomic Features of Pancreatic Heterotopia in Patient Disease Manifestation

Introduction: Pancreatic heterotopia (PH) is pancreatic-type tissue developing outside the pancreas, commonly the bowel wall. Symptomology in patients depends on the elements of the ectopic pancreas present and the anatomic regions of the bowel involved. Importantly, these elements need to be considered in revisiting the patient's symptoms and prior diagnosis. Caustic substances released by the exocrine pancreatic glands, if present, can cause injury and inflammation in the bowel that causes abdominal pain, nausea, and vomiting, mimicking more common conditions. This case series of three PH cases illustrated how specific anatomical and histological characteristics of the ectopic pancreatic explain the symptomatology of each patient, two of whom had been treated for other conditions.

Case Descriptions: In the first case, pancreatic tissue in the serosal of the bowel wall releases pancreatic enzymes into the peritoneal space which causes inflammation, adhesions, an adrenal abscess, and subsequent jejunal-colonic fistula formation. This patient had originally been diagnosed and treated for Crohn's disease for years and had a history of an adrenal abscess with unknown etiology; however, after the resection of the ectopic tissue, the patient had a resolution of the symptoms. The second case demonstrates heterotopic pancreatic tissue extensively involved in the jejunal wall with a large ductal conduit opening to the lumen leading to partial obstruction and diarrhea. Because the imaging and symptomology suggest infectious gastroenteritis, the patient received two months of treatment, without resolution until resection. The third case involves tissue without acini which presented symptomatically much later due to the lack of caustic substances being released.

Conclusion: Often pancreatic heterotopia is unsuspected clinically. A thorough examination of the resected heterotopic pancreatic tissue should be performed as the elements present are essential in framing the patients' prior symptoms and revisiting prior diagnoses. Anatomical and histological features of the PH should be documented in the surgical pathology report, including size, areas of bowel wall involved, type of tissue present, and any areas with obvious ductal communication with the bowel lumen and adjacent tissues, as these features correlate with the likelihood of the pancreatic tissue to have caused the patients symptoms.