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Case Report

Incidental finding of ectopic pancreatic tissue in gastric wall during laparoscopic sleeve gastrectomy: a case report

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ABSTRACT

Ectopic pancreatic tissue, or heterotopic pancreas, is a rare congenital anomaly defined by the presence of pancreatic tissue outside its usual location and without vascular or ductal continuity with the main pancreas. It is often asymptomatic and typically discovered incidentally during imaging or surgical procedures. We report the case of a 41-year-old female undergoing laparoscopic sleeve gastrectomy for morbid obesity (BMI: 44 kg/m²), during which a 17×9 mm nodular lesion was identified on the anterior stomach wall. Histopathological analysis confirmed ectopic pancreatic tissue, classified as Heinrich type I. This case highlights the importance of recognizing incidental findings during bariatric surgery and the need for thorough pathological evaluation to rule out malignancy or other complications.

Keywords: Ectopic pancreatic tissue, Morbid obesity, Gastric wall lesion, Bariatric surgery, Laparoscopic sleeve gastrectomy

INTRODUCTION

Ectopic pancreas is an uncommon developmental anomaly characterized by the presence of pancreatic tissue outside its normal anatomical location and without vascular or ductal continuity. The condition is estimated to occur in 0.5% to 13.7% of autopsy studies and is most frequently found in the stomach, duodenum, and jejunum.[1,2] Although typically asymptomatic, ectopic pancreas may occasionally present with complications such as gastrointestinal bleeding, obstruction, or malignant transformation.[3] With the increasing prevalence of obesity and the popularity of laparoscopic sleeve gastrectomy, incidental findings of ectopic pancreatic tissue in the stomach may become more frequently encountered. This case report describes such an incidental discovery during bariatric surgery.

CASE REPORT

A 41-year-old female with morbid obesity (BMI: 44 kg/m²) was referred for laparoscopic sleeve gastrectomy. The patient had no significant medical history other than obesity and no symptoms of gastrointestinal disease. Preoperative investigations, including routine blood tests, liver function tests, amylase, and lipase, were unremarkable.

There was no history of abdominal pain, gastrointestinal bleeding, or prior surgeries.

Intraoperative findings

During laparoscopic sleeve gastrectomy, a firm, nodular lesion measuring 17×9 mm was incidentally identified on anterior stomach wall near greater curvature.

The lesion appeared distinct from the surrounding gastric tissue. It was excised en bloc with the resected portion of the stomach as part of the planned surgical procedure. The surgery was completed without complications.

A photograph of the resected stomach portion is shown below (Figure 1).

Figure 1: The resected stomach specimen demonstrating the area containing the ectopic pancreatic tissue.

Postoperative course

The patient recovered uneventfully and was discharged on postoperative day two. Follow-up visits at one and three months showed no complications, and the patient was progressing well with her weight loss goals.

Pathological examination

Histopathological analysis revealed the presence of pancreatic acinar and ductal structures, consistent with ectopic pancreatic tissue. The lesion was classified as Heinrich type I, which includes all pancreatic elements-acinar, ductal, and endocrine components.[4] There was no evidence of inflammation, pseudocyst formation, or malignancy.

DISCUSSION

Ectopic pancreas is thought to result from aberrant migration of pancreatic tissue during embryonic development.[5] While it can occur anywhere along the gastrointestinal tract, the stomach is one of the most common sites, accounting for approximately 25% of cases.[1,2] Within the stomach, ectopic pancreatic tissue is often located in the antrum or along the greater curvature. The tissue is typically submucosal and asymptomatic, making incidental discovery during surgery or imaging the most common scenario.

From a surgical perspective, incidental findings of ectopic pancreas during bariatric procedures such as sleeve gastrectomy pose unique considerations. As the procedure involves resection along the greater curvature of the stomach, ectopic pancreatic tissue, if present, is often included in the resected portion. Although most cases are benign, thorough histological evaluation is necessary to confirm the diagnosis and exclude potential complications such as inflammation, pseudocyst formation, or malignancy.[3,6]

The Heinrich classification system provides a framework for identifying and categorizing ectopic pancreatic tissue based on its histological composition. Heinrich type I, as seen in this case, is the most histologically complete and includes acinar, ductal, and islet cells.[4] While most lesions remain asymptomatic, complications such as bleeding, obstruction, or malignant transformation, though rare, have been reported in the literature.[7]

With the rising prevalence of obesity and the increasing number of sleeve gastrectomies performed globally, the likelihood of encountering ectopic pancreas intraoperatively may increase. Surgeons should remain vigilant for such findings and ensure proper excision and pathological examination to prevent long-term complications. Moreover, preoperative imaging, such as CT or MRI, may not reliably detect ectopic pancreatic tissue, emphasizing the importance of intraoperative recognition.[5]

CONCLUSION

This case highlights the importance of recognizing incidental findings such as ectopic pancreatic tissue during bariatric surgery. While rare, these findings warrant histological confirmation to rule out complications, including malignancy. Multidisciplinary collaboration between surgeons, pathologists, and gastroenterologists is essential to ensure optimal patient outcomes.

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