

A Rare Case of Appendiceal Metastases Secondary to Pancreatic Adenocarcinoma

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INTRODUCTION

- Pancreatic adenocarcinoma is an aggressive malignancy that most commonly metastasizes to the liver, peritoneum, and lungs.
- Metastatic involvement of the appendix is exceedingly rare, with only two previously reported cases in the literature. Prior reports describe either chronic abdominal symptoms with appendiceal nodules discovered on colonoscopy or acute presentations mimicking appendicitis.
- We present what is, to our knowledge, the third reported case of pancreatic adenocarcinoma with appendiceal metastasis, highlighting its clinical presentation and diagnostic findings.

BACKGROUND

The appendix is an uncommon site of metastatic disease due to its small size and limited vascular supply. When present, metastatic involvement most often arises from gastrointestinal, breast, or gynecologic malignancies and may present incidentally or mimic acute appendicitis.

Recognition of metastatic appendiceal disease is important, as it may represent advanced systemic malignancy and alter staging and management.

CASE REPORT

A 53-year-old man with insulin-dependent type II diabetes mellitus and tobacco use presented with acute-on-chronic periumbilical abdominal pain radiating to the back. He reported two months of persistent abdominal discomfort refractory to antacids.

CT abdomen/pelvis revealed a 9.3 × 4.9 cm pancreatic body/tail mass with peripancreatic infiltration, encasement of the celiac axis and portalsplenic confluence, and splenic vein occlusion. Imaging also demonstrated nodular thickening of the appendix with periappendiceal lymphadenopathy, concerning for appendiceal neoplasm. CA 19-9 was markedly elevated (9118).

Endoscopic ultrasound with fine-needle aspiration confirmed pancreatic adenocarcinoma. The patient subsequently underwent laparoscopic appendectomy and peritoneal biopsy, which revealed a nodular appendix with scattered peritoneal implants. Histopathology demonstrated moderately differentiated adenocarcinoma positive for CK7, CA19-9, and CDX2, consistent with metastatic pancreatic adenocarcinoma. Peritoneal biopsies also confirmed metastatic disease.

Discussion

Primary appendiceal tumors are identified in only 0.9-1.4% of appendectomy specimens, and metastatic tumors represent a small fraction of these cases. In a large review of approximately 80,000 appendectomy specimens, only seven metastatic malignancies were identified.

The mechanism of appendiceal involvement is thought to involve peritoneal dissemination, lymphatic spread, or vascular pathways. The presence of extensive peritoneal implants in our patient supports transcoelomic dissemination as a likely mechanism. This case highlights the importance of considering rare metastatic etiologies in atypical appendiceal pathology, particularly in patients with newly diagnosed pancreatic malignancy.

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