

PICTURES IN DIGESTIVE PATHOLOGY

Signet ring cell carcinoma of the jejunum: an uncommon finding within the reach of capsule endoscopy

José Francisco Juanmartiñena^{1,2}, Marta Montes³ and Ignacio Fernández-Urién^{1,2}

Departments of ¹Endoscopy, ²Digestive Diseases and ³Pathology. Complejo Hospitalario de Navarra. Pamplona, Spain

CASE REPORT

An 80-year-old female, with a history of ductal breast carcinoma (stage II) three years earlier, presented with asthenia and iron-deficiency anemia. No diagnosis was obtained after conventional endoscopy, and iron supplements were indicated. Ten months later, visible digestive hemorrhage occurred. Upper and lower endoscopy was repeated but no diagnosis was obtained. Thus, video capsule endoscopy was indicated, identifying a stenotic lesion arising in the mucosa of distal jejunum (Fig. 1). Histopathological examination (Fig. 2) revealed a poorly mucinous differentiated signet-ring cell adenocarcinoma with an intense peri-tumoral lymphoid (Crohn's-like lymphoid reaction) and lympho-vascular infiltration with no nodal metastases (pT3N0; 7th edition TNM classification). Immunohistochemistry revealed negative staining for estrogen and progesterone receptors in contrast with prior breast cancer. Thus, metastatic origin was ruled out (Fig. 3).

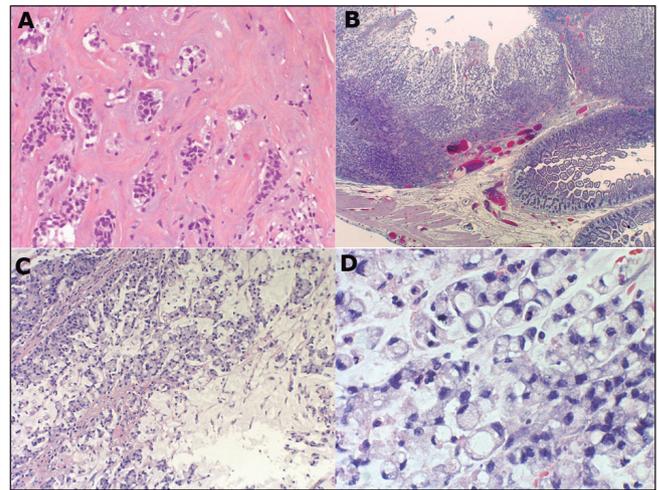


Fig. 2. A. Histopathology of breast cancer (H-E x40). B. Adenocarcinoma of the small bowel: tumor infiltrates all layers. C. Signet-ring cell adenocarcinoma with an intense peri-tumoral lymphoid infiltration with > 50% of signet ring cells. D. H-E x200.

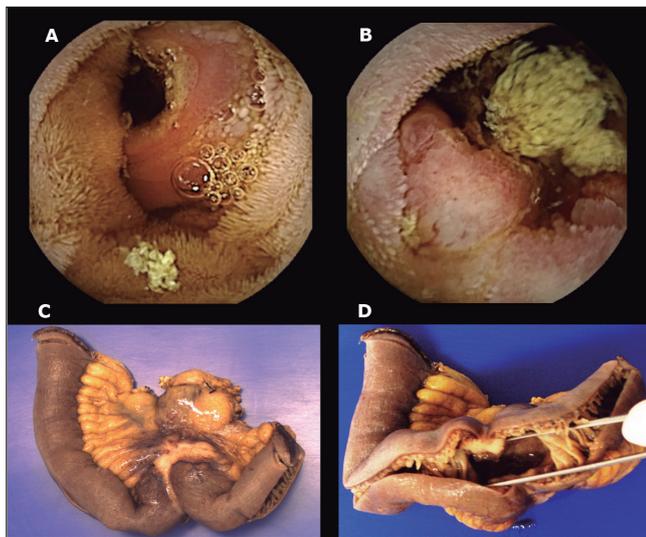


Fig. 1. A and B. Signet ring cell adenocarcinoma arises in the mucosa of the jejunum. C and D. Macroscopic images after surgical resection.

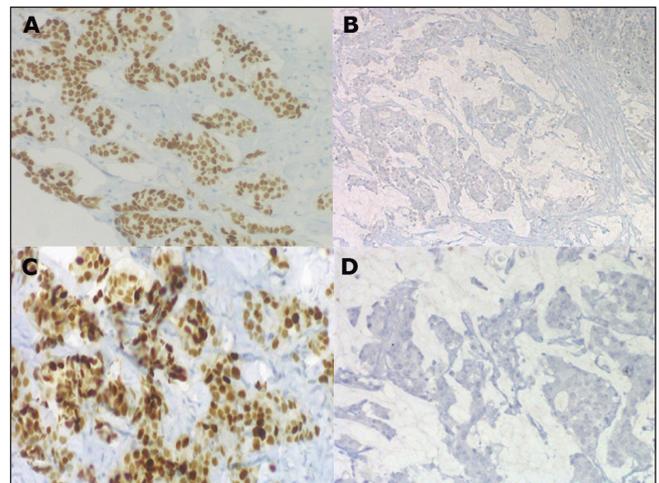


Fig. 3. Breast cancer positively stained for estrogen (A) and progesterone receptors (C) while negatively stained for small bowel neoplasm (B and D).

DISCUSSION

Primary small-bowel malignancies are extremely rare (1). They account for 2% of all gastrointestinal tract malignancies. Carcinoid tumor (40%), adenocarcinoma (33%), lymphoma (17%) and sarcoma (8%) are the most common histological types. Symptomatic lesions are rare but, when present, gastrointestinal bleeding, abdominal pain and weight loss are the most common digestive symptoms. Primary signet ring cell adenocarcinoma is a rare histopathological variety of adenocarcinoma with poor prognosis, usually identified in esophageal or gastric locations (95%). They are less commonly detected in remaining gastrointestinal tract (2,3) and, when present, metastatic origin must always be ruled out. Nowadays, delayed diagnosis

is common and leads to the detection of small bowel neoplasms at late stages with poor treatment outcomes. Thus, capsule endoscopy may help to improve this situation as it may identify them at early stages.

REFERENCES

1. Bilimoria KY, Bentrem DJ, Wayne JD, et al. Small bowel cancer in the United States: Changes in epidemiology, treatment, and survival over the last 20 years. *Ann Surg* 2009;249:63-71. DOI: 10.1097/SLA.0b013e31818e4641
2. Iizawa H, Ikeda E, Sato T, et al. Signet-ring cell carcinoma of the ileum: Report of a case and review of the Japanese literature. *Surg Today* 1998;28:1168-71. DOI: 10.1007/s005950050306
3. Yamagami H, Oshitani N, Suekane T, et al. Signet-ring cell carcinoma of the jejunum diagnosed by double balloon enteroscopy. *Hepatogastroenterology* 2008;55:1246-8.