

## Title: An uncommon cause of digestive neoplasm: duodenal melanoma

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## An uncommon cause of digestive neoplasm: duodenal melanoma

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Dear Editor,

Duodenal melanoma is a rare diagnosis that is exclusively made with the help of histopathology. Early recognition, before symptoms develop, is only possible with imaging techniques or gastroscopy.

A primary gastrointestinal origin remains unrecognized given the absence of melanocytes in the gastrointestinal tract, yet multiple cases report a primary gastrointestinal location (1,5), which may be mainly explained by three reasons: migration of melanoblasts from the neural tube through the omphalomesenteric duct, neoplastic transformation of neuroendocrine cells, or gastrointestinal autonomic nervous system malignancy (5).

Some authors have suggested that thoroughly searching for a primary skin site be required before a diagnosis is established since in up to 1/3 of patients small-bowel involvement is secondary to skin melanoma, the small bowel being the main site of metastatic disease (3).

We report the case of a 77-year-old woman with a history of trigeminal neuralgia on treatment with oxcarbazepine. She was referred for epigastric pain radiating in a belt-like fashion, mild fever for the last two hours, and hypertransaminasemia. On arrival an abdominal ultrasound only revealed a fatty liver, and lab tests found dissociated cholestasis; the patient was then admitted to the gastroenterology ward for suspected choledocholithiasis.

During admission a cholangio-MRI scan revealed significant intrahepatic and extrahepatic bile-duct dilatation with abrupt narrowing in the intrahepatic portion of the common bile duct, with failure to rule out a pancreatic origin of the obstruction because of a pancreatic head tumor. Given these findings an abdomino-pelvic CT scan was ordered, which identified a 3-cm lesion at the second duodenal portion, with vascular involvement and both celiac and mesenteric adenopathies, that is causing the dilatation of the bile ducts (Fig. 1, images A-B).

Gastroscopy found an ulcerated growth at the papillary region, its biopsy revealing neoplastic proliferation with melanocytic pigment infiltrating the small-bowel mucosa, with S100, MelanA, and HMB45 positivity (Fig. 1).

Finally, since curative resection was not possible palliative care was considered with prophylactic PEG and biliary stenting, which resulted in symptom relief, as well as palliative



chemotherapy.

Given its nature, gastrointestinal melanoma must be evaluated jointly with expert dermatologists, searching for a previously unrecognized primary skin lesion. If the latter is ruled out then a primary gastrointestinal origin may be considered, a condition that remains controversial, dismissed by most experts to this day.

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Figure 1: Radiological study. A and B. Abdomino-pelvic CT scan on the axial & coronal plane revealing a bilobulated duodenal lesion that, given its location, might represent a growth at the head of the pancreas or ampulla of Vater. Endoscopy. C. Ulcerated lesion at the duodenal ampulla. Pathology. D. E and F. Large polygonal cells with off-center nucleus, prominent nucleolus, and cytoplasm with melanocytic pigment and MELAN-A, S100 positivity.