

Letters to the Editor

Multiple gastric carcinoid tumors

Palabras clave: Tumores carcinoides gástricos. Hipergastrinaemia. Múltiple. Diagnóstico. Tratamiento.

Key words: Gastric carcinoid tumors. Hypergastrinaemia. Multiple. Diagnosis. Treatment.

Dear Editor,

We present the case of a 40-year-old caucasian woman that was referred for symptomatic iron-deficiency anaemia. She denied visible blood loss, other symptoms and or taking any medication. The patient had a family history of gastric (grand mother) and colon cancer (father and mother both diagnosed after the age of 60). Aside from pallor of skin and mucosae, no other physical abnormalities were noted. Investigations revealed haemoglobin 10 g/dl, hematocrit 30%, mean corpuscular volume 78,2 fl, transferrin saturation of 10% and ferritin 35 mcg/l. An upper endoscopy was performed, revealing five polyps in the upper body of the stomach. The largest was approximately 20 mm and was ulcerated. The other polyps were less than 10 mm and were in a linear distribution. Surrounding mucosa was atrophic. Chromoscopy with indigo carmine was performed to define the lesions more accurately (Fig. 1). Separate biopsies of all the polyps and adjacent mucosa were taken. Histopathologic evaluation revealed carcinoid tumors in all the polyp biopsies as well as the surrounding atrophic mucosa, showing positive immunoreactivity for chromogranin A, synaptophysin and neuro-specific enolase. Limited to the submucosa was a uniform group of enterochromaffin-cells (ECL) carcinoids formed by a regular nuclei, round nucleoli, granular cytoplasm composing a mixed trabecular and nesting patterns (Fig. 2). The serum gastrin level reached 1,200 pg/ml. Level vitamin B₁₂ and auto immune studies were normal. Thoraco-abdominal computed tomography confirmed 10 and 15 mm polyp lesions in the upper body of the stomach without other

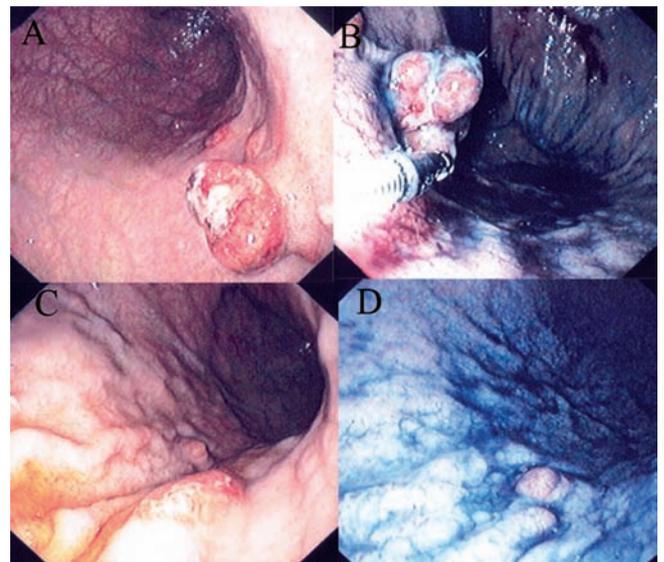


Fig. 1. Multiple gastric carcinoid tumors in the body of the stomach. The largest was ulcerated and surrounding mucosa was atrophic (A, B and C). Polyps and mucosa after chromoscopy with indigo carmine (B and D).

findings. Colonoscopy was normal. Measurements of serum chromogranin A and urinary 5-hydroxyindole acetic were within normal ranges. Total gastrectomy with lymph node resection was performed, and the diagnosis of multiple gastric carcinoid type I with chronic atrophic gastritis was confirmed. The carcinoid tumors were limited to the submucosa and there were no vascular or regional lymph node invasion. The patient was discharged after an uneventful postoperative recovery. After a 20 month follow-up, the patient is well and surveillance exams are normal.

Discussion

Incidence of gastric carcinoid tumors (GCT) is higher than previously reported, currently representing 0,54-1,77% of gas-

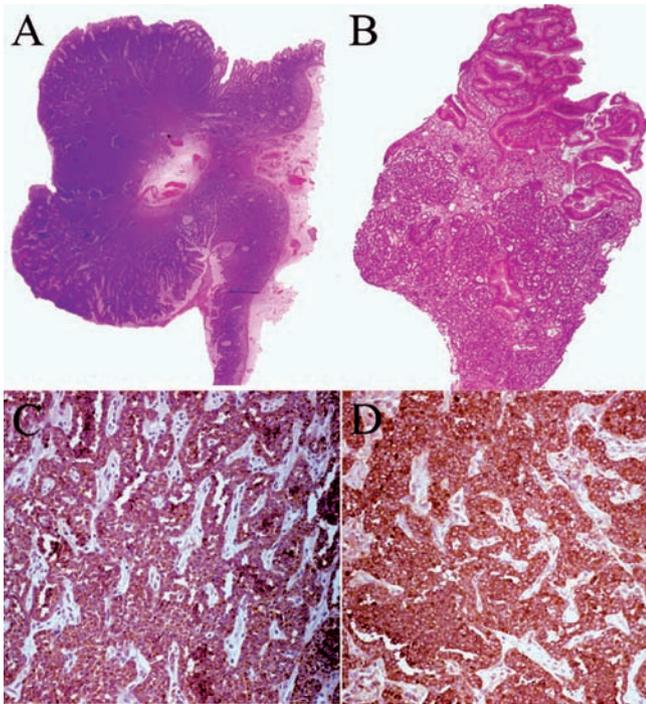


Fig. 2. The largest gastric carcinoid tumor (A). A low-power view demonstrating the typical nesting pattern (B). Immunoreactivity for chromogranin A (C) and synaptophysin (D).

tric tumors. This may result from an increase in awareness, higher number of endoscopies performed, and possibly, a real change in incidence (1,2). GCT exhibits an increased incidence in individuals with atrophic gastritis, pernicious anaemia, and MEN-1 associated gastrinoma. Clinically GCT present with non-specific symptoms and signs, where they are usually incidentally found at endoscopy. The GCT type I are characteristi-

cally multiple, small (< 10 mm), polypoid and localized in body/fundus of the stomach. They exhibit a low propensity to metastasize and are associated with hypergastrinemia (1-3). Biopsy of the adjacent mucosa can reveal various degrees of ECL: hyperplasia, dysplasia, and even invasive spread. Gastrin may act as a stimulation factor causing a trophic effect on the ECL in the fundus/body and producing multifocal tumors and in this case growth within the adjacent atrophic mucosa (1,3). One of the most important reasons that led us to perform a total gastrectomy on this patient was the fact that in the adjacent mucosa carcinoid tumors were found. The others reasons were patient age (requiring long follow-up), number of lesions and tumor size (> 10 mm). There is still controversy about the best strategies to treat GCT because they are rare and heterogeneous tumors. Depending on the type of GCT and their characteristics, the approach to patient should be endoscopic polypectomy or surgical excision (total gastrectomy with lymph node resection, removal of the body and fundus or just antrectomy) (1-3).

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