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Letters to the Editor

Uncommon cause of chronic diarrhea

Key words: Chronic diarrhea. Pancreatic tumor. Neuroendocrine tumor.

Dear Editor,

Endocrine pancreatic tumors (EPT) are rare tumors that produce glucagon in less than 1% of them (1).

We present a case in which the diagnosis was based on the incidental finding of a tumor marker usually not related to these tumors.

Case report

A 79-man consulted for diarrhea 3 months ago. Conventional tests for the study of chronic diarrhea were normal. During follow-up it was detected an increase in CA 19.9 (167.9 U/mL;VN: < 37U/mL). An abdominal CT scan showed a nodule of 1.7 cm in the tail of the pancreas. The study was completed with a MRI which confirmed the presence of the nodule and, because of its vascular behaviour, the diagnosis of neuroendocrine tumor was suggested.

Octreotide scintigraphy showed a lesion that expressed somatostatin receptors. Serum levels of various hormones (VIP, glucagon, gastrin, insulin and chromogranin A) were negative except for chromogranin A which was elevated (369 ng/mL; VN: < 133 ng/mL).

The patient underwent corporocaudal espleno-pancreatectomy. The pathological diagnosis was a well differentiated neuroendocrine tumor of low grade G1(according to WHO classification 2010) of 1.2 cm in diameter limited to the pancreas (stage pT1 eNETS of 2007 and the AJCC/UICC 2009) positive for glucagons (Fig. 1).

After intervention, octreotide scintigraphy was normal. Currently, the patient continues his revisions in consultation of Surgery and he is asymptomatic.

Discussion

Glucagon-secreting EPT are originated in alpha cells from the pancreas, but they may arise from ductal epithelial stem cells (2). They appear in middle-aged adults. They usually are large pan-

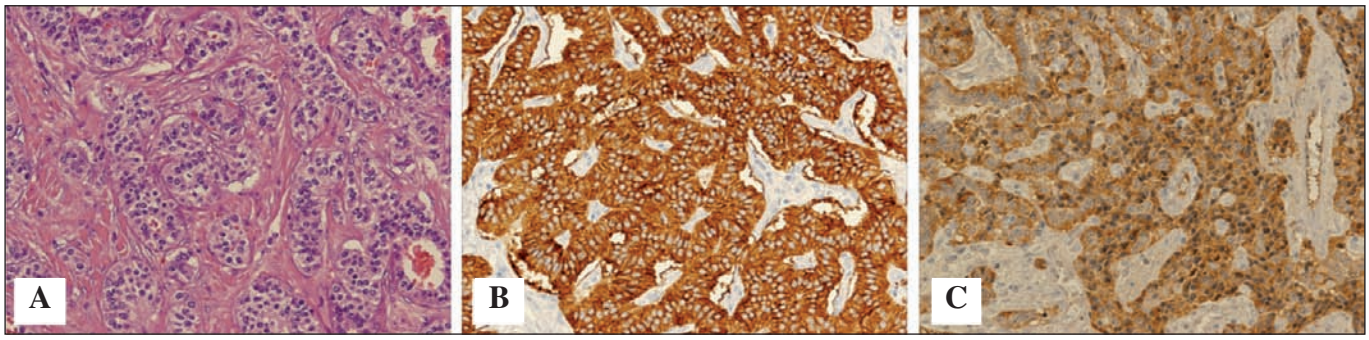

Fig. 1. A. Staining with hematoxylin-eosin. Tumor cells show nuclei of variable size and regular shape, with finely granular chromatin, presence of small nucleoli and scant mitotic activity (less than 2 mitosis x CGA) (high power field). B. Immunohistochemical staining is showing positivity of the cells tumors for chromogranin. C. Immunohistochemical staining with glucagon-positive cells.

creatic tumors that are associated with MEN syndrome type 1 in up to 3-5% of the cases (3).

They are characterized by the glucagonoma syndrome: necrolytic migratory erythema, glucose intolerance, anemia, weight loss, diarrhea, abdominal pain, venous thrombosis and neuropsychiatric symptoms.

Although necrolytic migratory erythema is very characteristic, is not pathognomonic. The rash consists of itchy and painful erythematous plaques located anywhere in the body (4).

Less common are cases of incidental diagnosis, such as our case. Other cases reported in the literature were also atypical, such as a patient who debuted with diabetic ketoacidosis (5) or another one with a malignant primary liver mass (6).

They can be suspected by hyperglucagonemia (levels > 500 pg/mL), hyperglycemia, hypoproteinemia, and normocytic-normochromic anemia (7).

In our case only a significant elevation of chromogranin A and an incidental detection of the elevated CA19.9 allowed us an early diagnosis.

The study should be completed with an abdominal CT or a MRI of the pancreas, which can also identify metastases, and should also be confirmed with an octreotide scintigraphy.

The treatment includes the surgical resection in the absence of distant metastases. Otherwise, somatostatin analogs, such as octreotide, should be used to improve symptoms.

In our case, we were able to remove completely the tumor due to its small size.

The prognosis is uncertain. Fifty to eighty percent of patients have metastases in the liver, lymph nodes or bone at diagnosis (8). However, patients may have prolonged survival.

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References

1. Oberg K. Pancreatic endocrine tumors. Semin Oncol 2010;37:594-618.
2. Kloppel G. Tumour biology and histopathology of neuroendocrine tumours. Best Pract Res Clin Endocrinol Metab 2007;21:15-31
3. Van Beek AP, de Hass ERM, van Vloten WA, Lips CJM, Roijers JFM, Canninga-van Dijk MR. The glucagonoma syndrome and necrolytic migratory erythema: a clinical review. Eur J Endocrinol 2004;151: 531-7.
4. Wilkinson DS. Necrolytic migratory erythema with carcinoma of the pancreas. Trans St Johns Hosp Dermatol Soc 1973;59:244
5. Fenkci SM, Fidan Yaylali G, Sermez Y, Akdam H, Sabir N, Kiraç S. Malign cystic glucagonoma presented with diabetic Ketoacidosis: case report with an update. Endocrine-Related Cancer 2005;12:449-54.
6. Obi N, Katabami T, Obi R, Odanaka M, Sasano K, Tanaka Y. Primary malignant hepatic glucagonoma: an autopsy case. Endocrine Journal 2009;56:715-9.
7. Wermers RA, Fatourechi V, Wynne AG, Kvols LK, Lloyd RV. The glucagonoma syndrome: clinical and pathology features in 21 patients. Medicine 1996;75:53-63.
8. Capella C, Heitz PU, Hofler H, Solcia E, Kloppel G. Revised classification of neuroendocrine tumours of the lung, pancreas and gut. Virchows Archiv 1995;425:547-60.