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NEUROENDOCRINE TUMOR OF THE MESENTERY: CASE REPORT

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Abstract: Introduction: Neuroendocrine tumors (NET) are rare and in up to 60% of cases affect the digestive tract, mainly in the small intestine (ileum). The primary origin in the mesentery is rare and with few reports in the literature. Tumors in the mesentery can be diagnosed by vague abdominal symptoms or even present as an incidental finding in routine examinations of asymptomatic patients. Case Report: MJS, female, 64 years old, referred to the general surgery outpatient clinic of our service by the gynecology team to investigate an undetermined solid-cystic lesion (cyst in the mesentery?) on routine abdominal ultrasound. The patient had symptoms of colic in the periumbilical region, with no change in bowel habits or weight loss. Chosen for investigation with magnetic resonance imaging of the upper abdomen and pelvis, which showed a solid cystic mass in the region of the mesentery, close to the ileal loops, capturing contrast, measuring approximately 10X12 cm, compatible with a tumor or mesenteric cyst. Tumor markers (CEA, CA 19.9, CA 125, CA 72.4 and alpha-feto protein) were negative. Colonoscopy with colonic diverticular disease and upper digestive endoscopy with mild enanthematous gastritis, without other lesions. Chosen for indication of laparotomy surgery for resection of the lesion. In the intraoperative inventory, no other lesions were found, except for a large vascularized solid-cystic lesion of approximately 10 cm in diameter, 70 cm from the ileum-cecal valve, in the mesentery region. We opted for careful en bloc resection of the lesion along with 40 cm of ileum and mechanical entero-enteroanastomosis. The patient had a satisfactory postoperative evolution, discharged on the fifth postoperative day without intercurrences. The anatomopathological study showed edema and congestion in the ileal loop, without lesions; in mesentery infiltration by moderately differentiated epithelioid neoplasia of probable neuroectodermal lineage. An immunohistochemical study was performed with a low histological grade neuroendocrine tumor profile (in mesenteric topography). Patient referred to the clinical oncology outpatient clinic for follow-up, with no evidence of recurrence or metastasis so far (8 months). Discussion: This case reported a neuroendocrine tumor with an infrequent primary origin; we must pay attention, however, that neuroendocrine tumors are tumors originating from enterochromaffin cells, which have the capacity to secrete amines and biogenic peptides, including serotonin. These mediators activate cancer-associated fibroblasts. In cases of asymptomatic small ileal tumors, we may have metastases in the lymph nodes of the involved mesentery, which results in a desmoplastic reaction and formation of mesenteric masses; in our patient, we did not find a primary site in the small intestine, however mesenteric masses must always remind the differential diagnosis of metastasis.
Keywords: Neuroendocrine tumor, mesentery, general surgery.

INTRODUCTION

Neuroendocrine tumors (NETs) are rare and in up to 60% of cases affect the digestive tract, mainly the small intestine (ileum). The primary origin in the mesentery is rare and with few reports in the literature. Tumors in the mesentery can be diagnosed by vague abdominal symptoms or even present as an incidental finding in routine examinations of asymptomatic patients.

CASE REPORT

MJS, female, 64 years old, referred to the general surgery outpatient clinic of our service by the gynecology team for

investigation of an undetermined solid-cystic lesion (cyst in the mesentery?) on routine abdominal ultrasound. The patient had symptoms of colic in the periumbilical region, with no change in bowel habits or weight loss. We opted for investigation with magnetic resonance imaging of the upper abdomen and pelvis, which showed a solid cystic mass in the mesentery region, close to the ileal loops, capturing contrast, measuring approximately 10X12 cm, compatible with a tumor or mesenteric cyst. Tumor markers (CEA, CA 19.9, CA 125, CA 72.4 and alpha-feto protein) were negative. Colonoscopy with colonic diverticular disease and upper digestive endoscopy with mild enanthematous gastritis, without other lesions. Chosen for indication of laparotomy surgery for resection of the lesion. In the intraoperative inventory, no other lesions were found, except for a large vascularized solid-cystic lesion measuring approximately 10 cm in diameter, 70 cm from the ileum-cecal valve, in the mesentery region. We opted for careful en bloc resection of the lesion along with 40 cm of ileum and mechanical entero-enteroanastomosis.

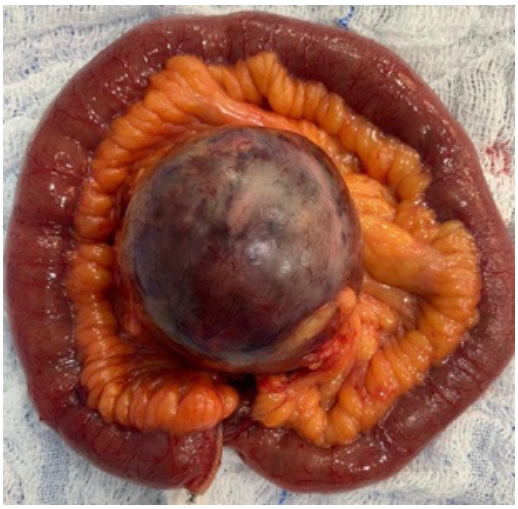

Image 1: surgical piece.

The patient had a satisfactory postoperative evolution, being discharged on the fifth postoperative day without intercurrences. The anatomopathological study showed edema and congestion in the ileal loop, without lesions; in mesentery infiltration by moderately differentiated epithelioid neoplasia of probable neuroectodermal lineage. An immunohistochemical study was performed with a low histological grade neuroendocrine tumor profile (in mesenteric topography). Patient referred to the clinical oncology outpatient clinic for follow-up, with no evidence of recurrence or metastasis so far (8 months).

DISCUSSION

This case reported a neuroendocrine tumor with an infrequent primary origin; we must pay attention, however, that neuroendocrine tumors are tumors originating from enterochromaffin cells, which have the capacity to secrete amines and biogenic peptides, including serotonin. These mediators activate cancer-associated fibroblasts. In cases of asymptomatic small ileal tumors, we may have metastases in the lymph nodes of the involved mesentery, which results in a desmoplastic reaction and formation of mesenteric masses; in our patient we did not find a primary site in the small intestine, however mesenteric masses must always remind differential diagnosis of metastasis.

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