

Rare Presentation of Colon Cancer Metastasis

Lisandro Moreno, Jesica Gamarra, Guillermo Rossini, Carlos Zorraquin
General Surgery Service, Coloproctology and Digestive Surgery Section, Hospital Nacional Prof.
Dr. Alejandro Posadas. El Palomar, Buenos Aires, Argentina.

ABSTRACT

Adrenal gland metastasis from colon adenocarcinoma is rare. Spontaneous adrenal hemorrhage with any underlying malignant mass is an even rarer phenomenon.

Among the forms of presentation of hemorrhage due to adrenal mass, we can mention as risk factors physical exertion and everything that generates an increase in intra-abdominal pressure causing sudden abdominal pain, which does not respond to usual analgesics.

We present a patient with abdominal pain due to hemorrhage from an incidental adrenal metastasis of sigmoid cancer.

Keywords: *Colorectal Adenocarcinoma Metastasis; Adrenal Metastasis; Colorectal Carcinoma; Retroperitoneal Hemorrhage/ Hematoma*

INTRODUCTION

Adrenal metastases specifically from colorectal carcinoma are rare, the most common being from primary tumors of the lung, breast, and kidney. Even the form of presentation with a retroperitoneal hematoma due to a hemorrhagic metastasis is infrequent. Spontaneous retroperitoneal hematoma should be considered as a differential diagnosis in any patient presenting with sudden-onset abdominal pain associated to anemia or hypotension, especially if he/she has a history of cancer.

OBJECTIVE

To present a case of hemorrhage from an incidental adrenal metastasis of a sigmoid colon cancer.

CASE

A 40-year-old female patient, with the date of her last menstruation a week ago, and grade I obesity, attended the emergency room due to sudden intermittent pain in the right iliac fossa with migration to the left hemiabdomen, intensity 10/10, associated with intermittent vomiting. Physical exam: generalized abdominal guarding and rebound tenderness. Blood pressure 130/70, heart rate 100 bpm, oxygen saturation 99% (FiO₂ 21%). Initial laboratory with recently diagnosed anemia (hematocrit 30.5%, hemoglobin 9.8 g/dl, white blood cells 8100/mm³). Abdominal ultrasound was performed, the results of which were confirmed by simple tomography of the abdomen and pelvis: left adrenal gland and in close contact

with the middle third of the kidney, heterogeneous image with irregular borders and some dense punctiform areas, associated with trabeculation of the adjacent perirenal fat and thickening of Gerota's fascia with an inflammatory appearance (size 81 x 66 x 49 mm). Scant fluid in the ipsilateral paracolic gutter. Suspicion of adrenal hematoma (Fig. 1).

In the context of hemodynamic instability and with these findings, emergency surgical management was decided. Exploratory laparotomy is performed through a supraumbilical midline incision with Barraya extension, without finding abnormalities in the peritoneal cavity. A left retroperitoneal hematoma is observed, a Mattox maneuver is performed and abundant clots and an indurated adrenal lesion with hemorrhage is evident. Resection and left adrenalectomy is performed en bloc, apart from hemostasis, lavage and placement of drains by counterincision. The complete specimen is sent to pathology (Fig. 2).

The patient evolves in the ICU with supplemental oxygen, extubated, without vasopressors, thermodynamically stable, presenting good daily postoperative outcome. On postoperative day 11 oral diet is well tolerated. The drains are removed and hospitalization continues in the general ward by the Internal Medicine Service for presenting a swab test and symptoms compatible with Covid-19.

Pathology report: (Protocol 20-2907). Immunohistochemical panel: metastasis of adenocarcinoma of colorectal origin, with ck20+ (cytokeratin 20+), ck 7 - (cytokeratin 7), cdx2 + (caudal homeobox2 protein), ttf1 - (thyroid transcription factor 1), villin +, CEA+ (antigen carcinoembryonic), catherida 17+. With this finding, a video colonoscopy was performed, showing a friable, bleeding, mamelonated lesion, 30 cm from the anal margin, with exophitic growth that partially occludes the lumen. No other mucosal alterations (fig. 3). The biopsy reports infiltration of adenocarcinoma (Protocol 20/3261). CA19-9: 28.3 (NV <37) CEA 0.9 (NV <3). After the swab was

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Jesica Betriz Gamarra

jesi.gamarra@gmail.com

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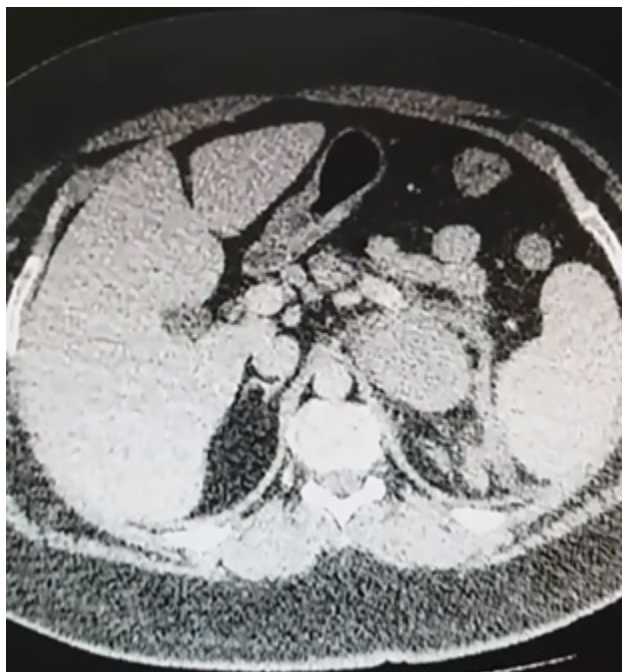


Figure 1: Computed tomography of the abdomen and pelvis without contrast that shows a heterogeneous image of irregular borders in the left adrenal gland, with trabeculations and alteration of the perirenal fat, compatible with adrenal hematoma. (Hospital Nacional Prof. Dr. A. Posadas Radiology Service).

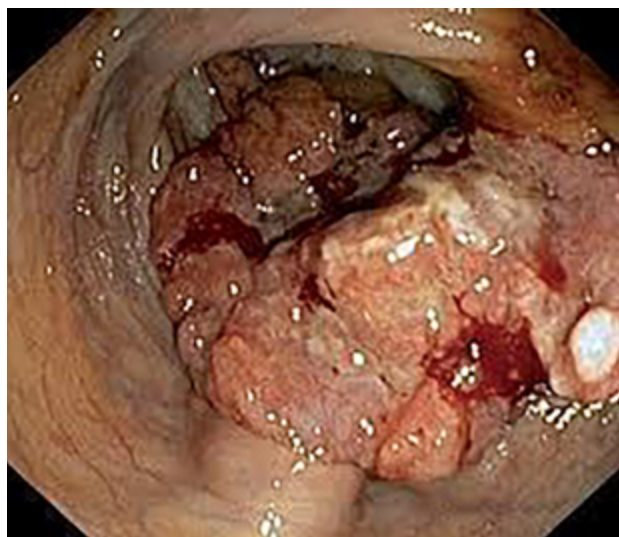


Figure 3: Colonoscopy. Exophytic, mammelated mass at 30 cm from the anal margin, corresponding to an adenocarcinoma.



Figure 2: Specimen of the hemorrhagic adrenal mass metastasis.



Figure 4: Specimen of the sigmoid colon adenocarcinoma.

negative for Covid-19, surgery was scheduled and a sigmoidectomy with stapled colorectal anastomosis was performed. The patient evolves favorably and is discharged from the hospital (Fig. 4). Pathology report: (Protocol 20-4046): Well-differentiated G1 sigmoid colon adenocarcinoma measuring 3.2 x 1.6 cm, infiltrating the peri-

colic fat, without macroscopic perforation. Free margins. No perineural or lymphovascular invasion or tumor deposits are identified. Regional lymph nodes 1/10 affected by neoplasia. Stage: pT3 pN1a M1. The Multidisciplinary Committee decided to indicate chemotherapy after recovery from surgery.

DISCUSSION

Colorectal cancer metastases occur in 20-30% of diagnosed patients, most commonly in the liver and lungs. Metastases in the adrenal glands are evident when the disea-

se is in a stage of widespread dissemination. However, single adrenal metastasis is rare and there are few reported cases. A review of a series of autopsies in the world literature revealed an incidence between 1.9 and 17.4%. This may be underestimated because the adrenal mass can be mistaken for a lumboaortic node.^{1,2} Lo, et al.³ reported adrenalectomies performed for adrenal gland metastases in 52 patients between 1983 and 1993, observing that the most common histological type was adenocarcinoma (69%). The clinical presentation is abdominal pain that does not improve with intravenous analgesics, associated or not with rebound pain. When an anemia syndrome, a family history of cancer, and a lesion in the adrenal region are found in these patients, a primary colorectal origin should be considered. In the case of associated hypotension or hypovolemic shock, a high-resolution imaging study should be requested, which is crucial for life if the rare spontaneous hemorrhage occurs, since if it is not diagnosed and treated in time, it can evolve into major bleeding and even death. Arterial embolization, if available, is valid for cases of minor bleeding, while surgery is valid for cases of severe bleeding. In a comprehensive review Marti, et al.⁴ recorded 133 cases of adrenal masses showing that only 6 patients presented spontaneous

and clinical hemorrhage very similar to the reported case. The most frequently reported pathologic diagnosis was pheochromocytoma (48%), followed by metastatic lesions (14%), hematoma (13%), myelolipoma (10%), adrenocortical carcinoma (7%), adenoma (4%), pseudocyst/hematoma during pregnancy (4%) and lipoma (1%). Resection might be considered an option for solitary adrenal metastasis from colorectal carcinoma. Surgery itself may result in a survival benefit for these selected patients.⁵ Overall survival rates were 73% at 1 year and 40% at 2 years. Patients with potentially curative resection had better survival than those who underwent a palliative procedure.²

CONCLUSION

Single metastasis to the adrenal gland from primary colorectal cancer is rare.

The form of presentation as adrenal hemorrhage is even rarer and in these cases it is necessary to act rapidly so as not to put the patient's life at risk.

Surgical resection is potentially curative and increases life expectancy in selected patients, provided that both the primary tumor and the solitary metastasis are correctly diagnosed and excised.

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