Massive digestive tract hemorrhage as initial manifestation of metastatic testicular choriocarcinoma

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**ABSTRACT**

**Clinical case:** The patient is a 32-year-old man who sought medical attention at our institution for massive hemorrhage of the upper digestive tract diagnosed through endoscopy and angiography. He was taken to the operating room and during surgery a non-resectable retroperitoneal mass invading duodenum and large vessels was found. Postoperative diagnosis was metastatic testicular choriocarcinoma and patient underwent radical orchietomy and received chemotherapy. At 18-month follow-up, tumor markers and imaging studies were negative for tumor activity.

**Discussion:** Five to ten percent of testicular tumors present with clinical manifestations deriving from metastatic disease. Only 5% of metastatic tumors affect the gastrointestinal tract and non-seminomatous germ cell tumors are more frequent, especially choriocarcinoma.

**Conclusions:** Gastrointestinal hemorrhage is an indicator of poor prognosis in these patients and in severe cases must be treated with endoscopy, angiography, and in select cases, surgery.

**Caso Clínico:** Paciente masculino de 32 años que acudió a nuestra institución por haber presentado hemorragia masiva del tubo digestivo alto, diagnosticado por endoscopia y angiografía. Ingresó a quirófano. Durante la cirugía se encontró una masa retroperitoneal irresecable, con invasión a duodeno y grandes vasos. El diagnóstico postquirúrgico fue de coriocarcinoma testicular metastásico, por lo que fue intervenido para orquiectomía radical y recibió tratamiento con quimioterapia. Posterior a 18 meses de seguimiento, los marcadores tumorales y los estudios de imagen resultaron negativos para actividad tumoral.

**Discusión:** De 5-10% de los tumores testiculares cursa con manifestaciones clínicas derivadas de enfermedad metastásica. El 5% de los tumores metastásicos, afectan el tracto gastrointestinal, más frecuentemente los tumores germinales no seminomatosos y en especial el coriocarcinoma.

**Conclusiones:** La hemorragia gastrointestinal es un indicador de mal pronóstico en estos pacientes y en casos severos deberá tratarse endoscópicamente, angiográficamente o mediante cirugía en casos seleccionados.
Metastatic testicular germ cell tumors should be included in differential diagnosis of gastrointestinal tract tumors in young men.

**Key words:** Massive hemorrhage, metastatic choriocarcinoma, Mexico.

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**INTRODUCTION**

Testicular cancer is the most frequent tumor in men 20 to 30 years old, with 3-5 cases in every 100,000 individuals. Testicular choriocarcinoma is an aggressive non-seminomatous germ cell tumor of rapid growth and represents 1% of testicular tumors. Fifty percent of patients present with metastatic disease at the time of diagnosis. However, gastrointestinal involvement is extremely uncommon. The following is a rare case of metastatic testicular choriocarcinoma with duodenal invasion.

**CLINICAL CASE**

The patient is a 32-year-old man with no important medical history who sought medical attention at the emergency room for melena and hematemesis of 48-hour progression. Hemoglobin was 7 g/dL and so patient received blood transfusion. Endoscopy did not reveal apparent bleeding site. Mesenteric angiography showed bleeding in branch of superior mesenteric artery and exploratory laparotomy was then performed. Unresectable duodenal tumor extending to the retroperitoneum and invading vena cava and aorta was found. Intraoperative endoscopy with sclerotherapy and adrenalin was carried out to control bleeding. Biopsy result was positive for choriocarcinoma (Image 1).

Initial tumor marker results were: human chorionic gonadotropin (hCG) 220,000, alpha-fetoprotein (AFP) 3.0 and lactic acid dehydrogenase (LDH) 1875. Computed axial tomography (CAT) (Image 2) and positron emission tomography (PET CT) (Image 3) were done revealing retroperitoneal, pelvic, hepatic, pulmonary and intestinal metastases with a 6 x 3 cm duodenal tumor implant that was classified as stage IIIc (T2N3M1b).

Right radical orchiectomy was performed and histopathological result of the surgical specimen was pure embryonal carcinoma. Postoperative treatment consisted of 4 cycles of bleomycin, etoposide and platin (BEP), 2 of vincristine and platin (VIP) and 2 of paclitaxel and carboplatin, with excellent response.

At 18-month follow-up tumor markers, chest X-ray, thoracoabdominal CAT (Image 4), PET CT (Image 5) and duodenoscopy are all negative.
DISCUSSION
The majority of testicular tumors present as non-painful testicular mass. However, 5-10% of cases manifest themselves with symptomatology derived from metastatic disease. Only 5% of metastatic tumors affect the gastrointestinal tract. Non-seminomatous germ cell tumors, especially choriocarcinoma, are the most frequent. The majority of gastrointestinal metastases are produced by direct infiltration into retroperitoneal lymph nodes that are adjacent to those that the testicles drain. Therefore the most frequently invaded sites are the intestine and in particular, the duodenum (95%). Similarly to other metastatic intestinal lesions, choriocarcinoma invades the submucosa and expands rapidly, compromising vascular flow and causing erosion and ulceration in the mucosa.

CONCLUSIONS
Despite its aggressive nature, choriocarcinoma has a high remission and survival rate: 70-80% at five years. These tumors respond favorably to cisplatin chemotherapy.

Gastrointestinal hemorrhage indicates poor prognosis in these patients and severe cases should be treated endoscopically, angiographically or surgically. Consequently, metastatic germ cell testicular tumor should be included in the differential diagnosis of gastrointestinal tract tumors in young men.
BIBLIOGRAPHY