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## **Germ cell tumor with duodenal involvement: a rare case of gastrointestinal bleeding**

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The authors obtained an informed consent from the patient for the publication of their information and imaging.

### **Case Report**

A 19-year-old male presented to the emergency department with a 7-day history of melena, anorexia and asthenia.

Blood tests revealed a hemoglobin of 5.8 g/dL. Upper endoscopy showed a large ulcerated and stenosing lesion in the duodenum (Figure 1). The histologic examination of the biopsy specimen showed a neoplasia with epithelioid cells, accentuated atypia and pleomorphism (Figure 2A), expressing MNF 116 cytokeratin, CD30, glypican 3 and alpha-fetoprotein on immunohistochemistry (Figure 2B), suggesting of a germ cell tumor metastasis.

Abdominal CT revealed a large mass in the duodenum with 7x6cm (Figure 3). Then, a right testicular nodule was detected, as well as an increase alpha-fetoprotein (58.71ng/mL) and hCG (1.9mUI/mL). Moreover, whole body positron emission tomography did not reveal any pathological uptake.

Radical orchiectomy was performed, with histological examination revealing the diagnosis of a “burn-out” nonseminomatous germ cell tumor (Figure 2C).

Imaging reassessment, after adjuvant chemotherapy, showed complete remission of the duodenal lesion. In the 36-months follow-up, the patient remained asymptomatic and without local or remote recurrence.

## Discussion

Few cases have been reported of germ cell tumors presenting with severe gastrointestinal bleeding<sup>1</sup>. Approximately half of the patients with nonseminomatous germ cell tumors present with disseminated disease. About 5% of germ cell cancer is associated with gastrointestinal involvement but only about 1.4% of cases involve the duodenum<sup>2</sup>. Furthermore, when it presents with lymph node metastasis, not accessible by endoscopy, endoscopic ultrasound plays an essential role in the diagnostic approach of these patients<sup>3</sup>.

## References

- 1- G. S. Rosenblatt, C. J. Walsh, and S. Chung, “Metastatic testis tumor presenting as gastrointestinal hemorrhage,” *Journal of Urology*, vol. 164, no. 5, p. 1655, 2000.

- 2- Chait, M. M., Kurtz, R. C. and Hajdu, S. I.: Gastrointestinal tract metastasis in patients with germ-cell tumor of the testis. *Am J Dig Dis*, 23: 925, 1978
- 3- Ma Y, Zhang W, Qiao Z, et al. Endoscopic ultrasound-guided fine-needle aspiration for the diagnosis of a case of a huge abdominal mass. *Rev Esp Enferm Dig.* 2021 Feb; (2):143-144. DOI: 10.17235/reed.2020.7305/2020

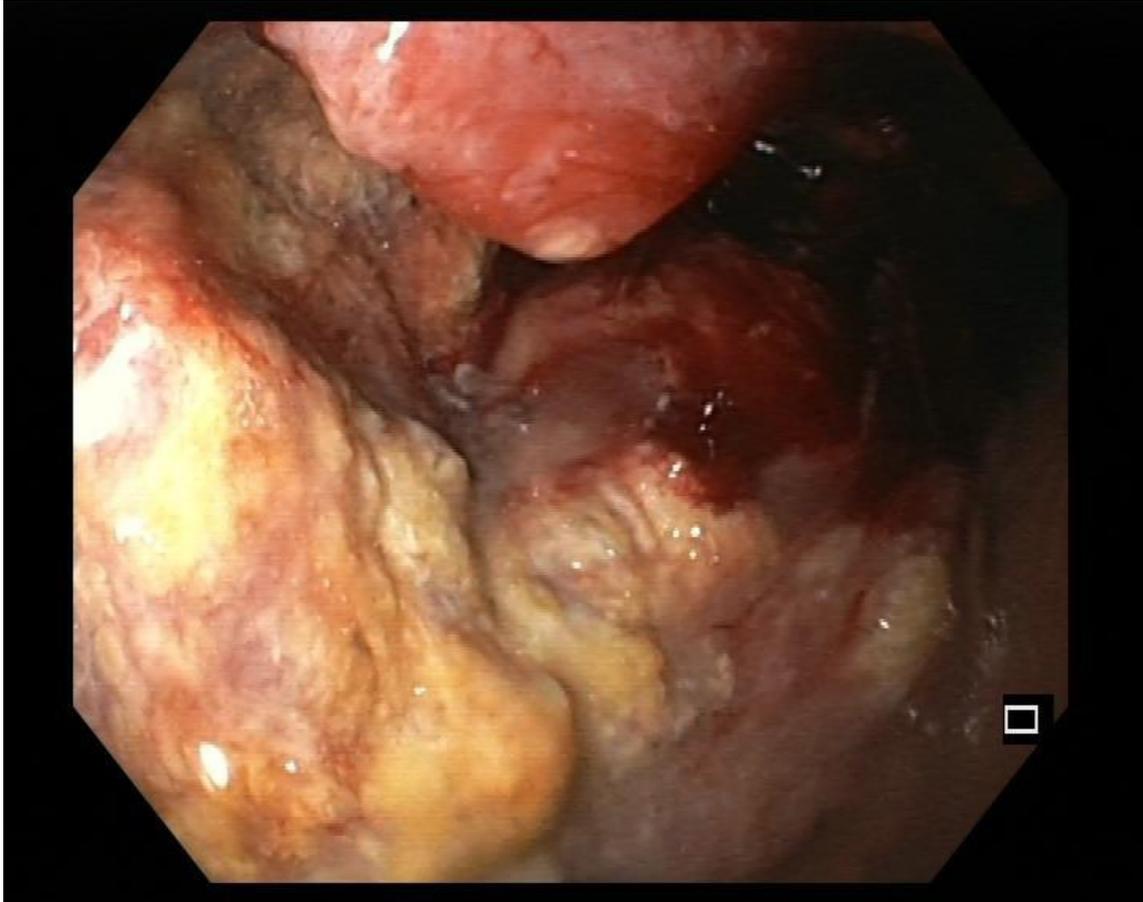


Fig 1: Large ulcerated and stenosing lesion in the duodenum.

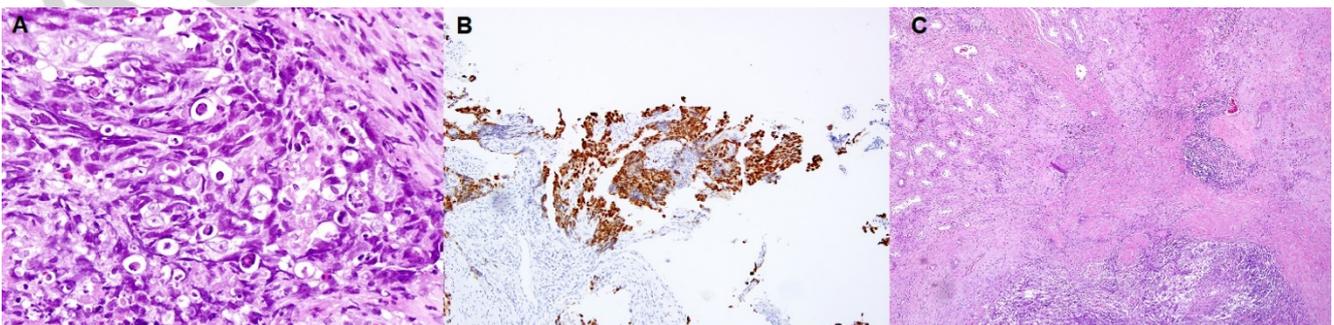


Fig 2: A- Epithelioid cells, accentuated atypia and pleomorphism. B- expression of MNF 116 cytokeratin, CD30, glypican 3 and alpha-fetoprotein on immunohistochemistry. C- Histological examination of radical orchiectomy shown an “burn-out” nonseminomatous germ cell tumor.



Fig 3: Abdominal CT revealed a large mass in the duodenum with 7x6cm.