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DOI: 10.17235/reed.2022.9327/2022
Link: PubMed (Epub ahead of print)

Please cite this article as:
Gonçalves Margarida, Silva Joana Sobreiro, Rebelo Ana. Germ cell tumor with duodenal involvement: a rare case of gastrointestinal bleeding. Rev Esp Enferm Dig 2022. doi: 10.17235/reed.2022.9327/2022.

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IPD 9327

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

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Received: 08/11/2022

Accepted: 10/11/2022

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Conflict of interest: the authors declare no conflict of interest.

Informed consent: 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 seven-day history of melena, anorexia and asthenia. Blood tests revealed a hemoglobin level of 5.8 g/dl. Upper endoscopy showed a large ulcerated and stenosing lesion in the duodenum (Fig. 1). The histologic examination of the biopsy specimen showed a neoplasia with epithelioid cells, accentuated atypia and pleomorphism (Fig. 2A), expressing MNF 116 cytokeratin, CD30, glypican 3 and alpha-fetoprotein on immunohistochemistry (Fig. 2B), suggestive of a germ cell tumor metastasis.

Abdominal computed tomography (CT) revealed a large mass in the duodenum of 7 x 6 cm (Fig. 3). Subsequently, a right testicular nodule was detected, as well as an increase in alpha-fetoprotein (58.71 ng/ml) and hCG (1.9 mUI/ml). Moreover, whole body positron emission tomography did not reveal any pathological uptake. Radical orchiectomy was performed, with a histological examination revealing the diagnosis of a “burn-out” nonseminomatous germ cell tumor (Fig. 2C). Imaging reassessment after

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

DISCUSSION

Few cases have been reported of germ cell tumors presenting with severe gastrointestinal bleeding (1). 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 (2). 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 (3).

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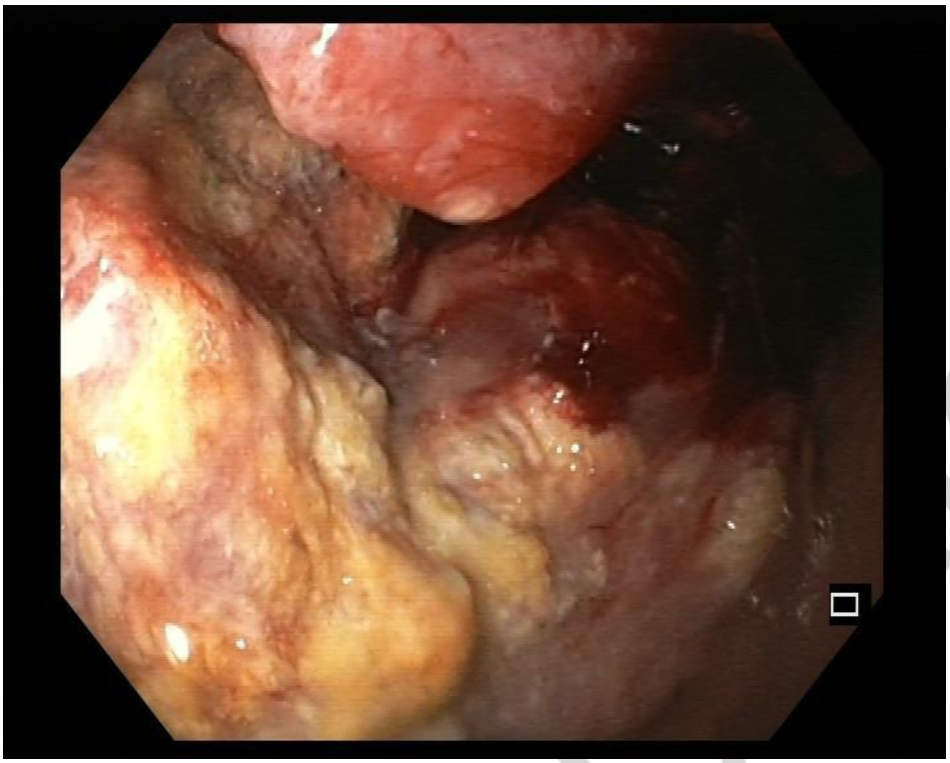

Fig. 1. Large ulcerated and stenosing lesion in the duodenum.

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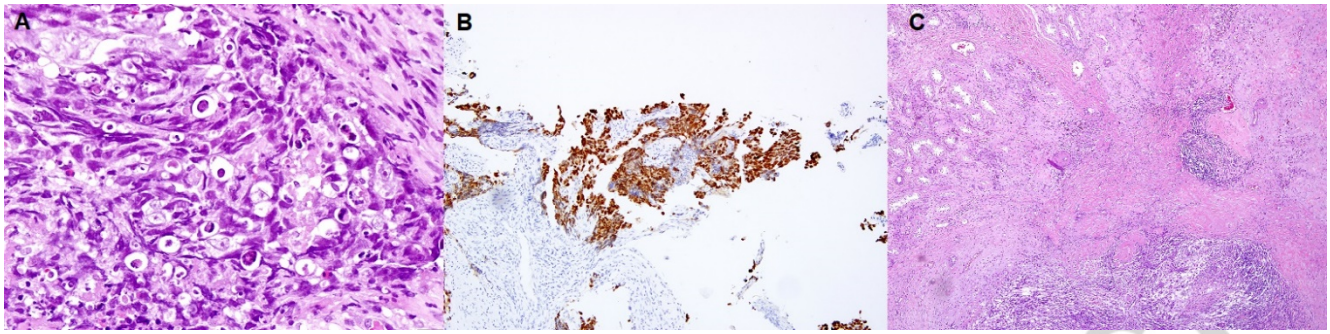

Fig. 2. A. Epithelioid cells, accentuated atypia and pleomorphism. B. Expression of MNF 116 cytokeratin, CD30, glypican 3 and alpha-fetoprotein on immunohistochemistry. C. Histological examination of radical orchiectomy showed a "burn-out" nonseminomatous germ cell tumor.

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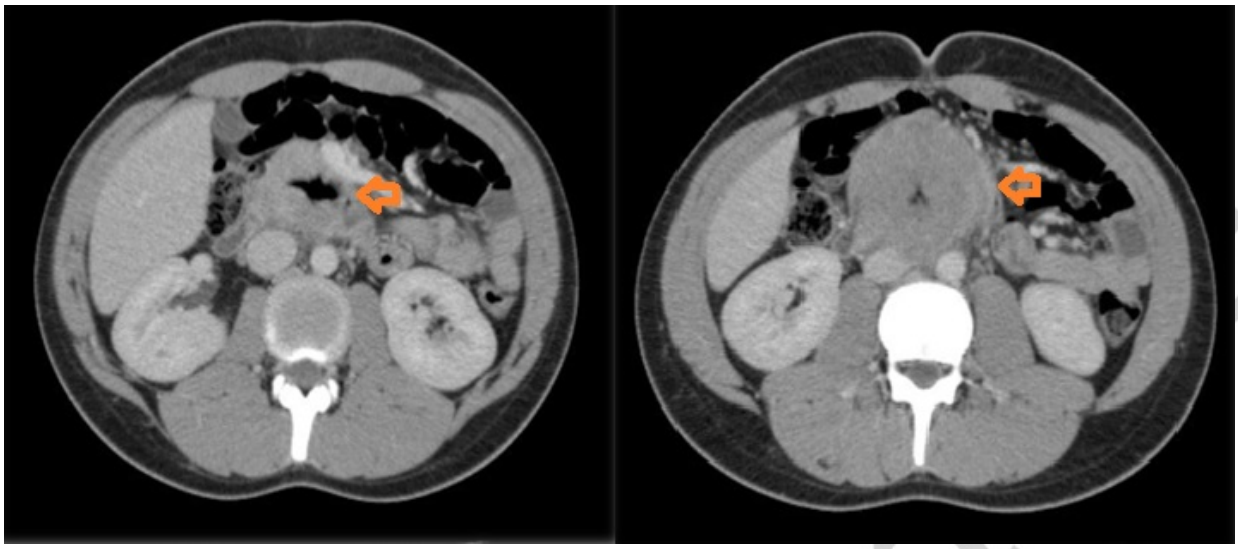

Fig. 3. Abdominal CT revealed a large mass in the duodenum with 7 x 6 cm.