

Introduction

- Although a rare form of cancer, Germ cell tumours are the most common malignancy in young males. The primary lesion is not always found in the testis ('burned-out') and may develop elsewhere. Some cases present only as a metastatic disease.
- Here we report a case of a young male with a germ cell tumour (GCT) metastatic to the inguinal region as the only manifestation of disease.

Methods

- A 45-year old male presented to the emergency department for pain in the inguinal region. two months earlier, he had undergone excision of an inguinal lipoma in Rwanda.
- He presented with a closed but swollen wound just below his scar. **CT imaging showed a dermo-hypodermic collection on the inner part of the thigh.** A puncture performed in the ED did not yield any fluid.
- **MRI revealed a heterogeneous and multilocular mass measuring 5x7x10cm, in contact with the adductor muscle.** PET-CT demonstrated locoregional lymph node involvement (inguinal and external iliac), with no other suspicious lesions.
- **Biopsies confirmed a germ cell tumour.** Despite a detailed ultrasound of the testes, no primary lesion was detected. LDH was the only elevated tumour marker.



Figure 1 : Vision of the thigh mass, at day 1, 15 and 25,

- **Within a few days, the mass ulcerated the skin and began to bleed. Repeat imaging showed a 350% increase in tumour volume within three weeks.** Chemotherapy was not administered due to the rapid growth and the urgent need for surgical resection.
- **The patient underwent resection of the tumour** with a skin graft and VAC therapy, without complications.
- **The final pathology report revealed eight metastases of a mixed germ cell tumour (SALL4+, OCT4+)** composed of 40% yolk sac tumour, 30% post-pubertal teratoma, and 30% somatic-type Malignancy (with sarcomatoid features). The largest metastases measured 14x10x10cm. NGS-fusion did not identify any pathogenic mutations. **Pathological stage: pM1 (8/15) L1 V1 R0.**
- The first postoperative assessment at six weeks showed the development of four adenopathies (3 in the external iliac field and 1 in the common femoral field).
- After tumour board discussion, the patient was recommended to receive three to four cycles of BEP chemotherapy.

Results

- **Germ cell cancer is the most common cancer in males between 15 and 49 years, but, fortunately, it is not often fatal.**
- Germ cell tumours originate from germ cells and may be benign or malignant. While they typically arise in the reproductive organs (usually the testes), they may also develop in other parts of the body if germ cells fail to migrate correctly during fetal development. These tumours are often asymptomatic until advanced stages². The most common sites of metastasis are the retroperitoneum and mediastinum.
- Three serum markers are typically tested in germ cell tumours: LDH, alpha-fetoprotein (AFP), and Beta-HCG. New markers such as SALL4 are emerging and serve as excellent indicators for non-teratomatous GCTs³.

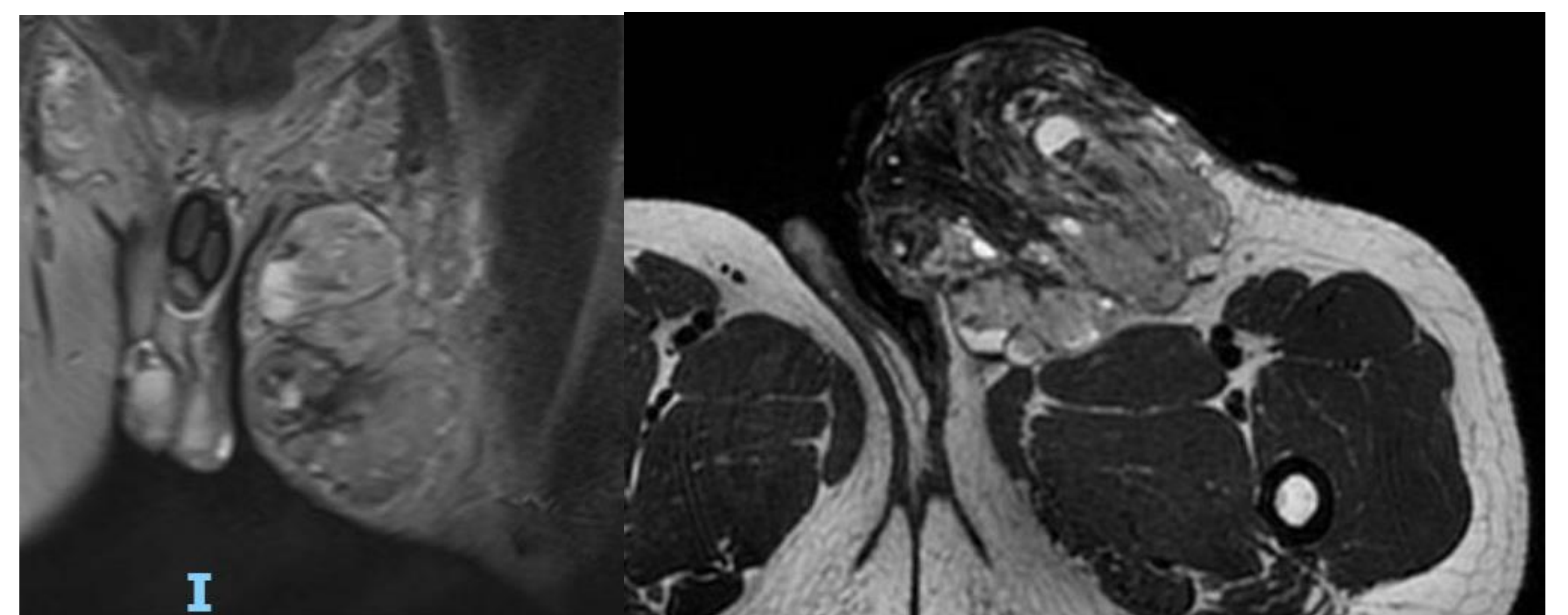


Figure 2 : MRI of the thigh; at day 1 and day 25

- Inguinal metastases of GCT are very rare and occur for only 1,1% of GCT (and 8,3% in the seminoma metastatic setting); based on retrospective cohorts³.
- Risk factors for inguinal metastases include prior groin or testicular surgery (due to altered lymphatic drainage), bulky retroperitoneal metastases, and seminoma histology⁴⁻⁵.
- According to current evidence, the presence of inguinal metastases does not negatively impact prognosis, and these cases can be cured with standard therapeutic approaches. Lymph node excision may be required in some patients

Conclusions

Inguinal metastases of germ cells tumours are rare but not associated with poorer outcomes. Risk factors include prior inguinal surgery, retroperitoneal metastases, and seminoma histology. Surgical treatment is not always necessary and is part of a multimodal treatment.

Bibliography

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