

## Oncology

## Abscessed Inguinal Metastasis of Testicular Tumor. Case Report



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## ABSTRACT

The testicular tumor metastatic spread via the lymphatic system, and the anatomical distribution of this, finds his target in the retroperitoneal nodes.

Male patient 28 years old with a history of bilateral orchidopexy is presented. It was performed a left orchiectomy and a biopsy of the ulcerated right inguinal mass, with diagnosis of malignant teratoma.

Metastatic testicular tumors in inguinal nodes are extremely rare. However, we believe that in patients with a history of scrotal surgeries and inguinal mass, must suspect for a testicular cancer.

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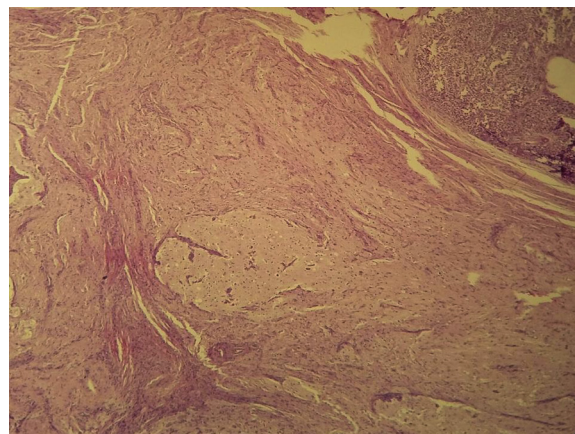
## Introduction

Germ cell tumors (GCTs) are uncommon tumors that constitute only 2% of all human malignancies, they are the most common solid tumor in men between 15 and 34 years of age. Constitute 95% of malignant tumors arising in the testes.<sup>1</sup> Several risk factors for GCT

development have been identified, including history of a GCT, positive family history, cryptorchidism, testicular dysgenesis, GCTs are classified as seminoma or nonseminoma. Nonseminomatous tumors often include multiple cell types, including embryonal cell carcinoma, choriocarcinoma, yolk sac tumor, and teratoma. Teratomas are considered to be either mature or immature, depending on whether adult-type differential cell types or partial somatic differentiation, is found. The metastatic dissemination is generally lymphatic, mainly at retroperitoneal lymph nodes. We present a patient with a history of orchidopexy, who consult for an abscessed



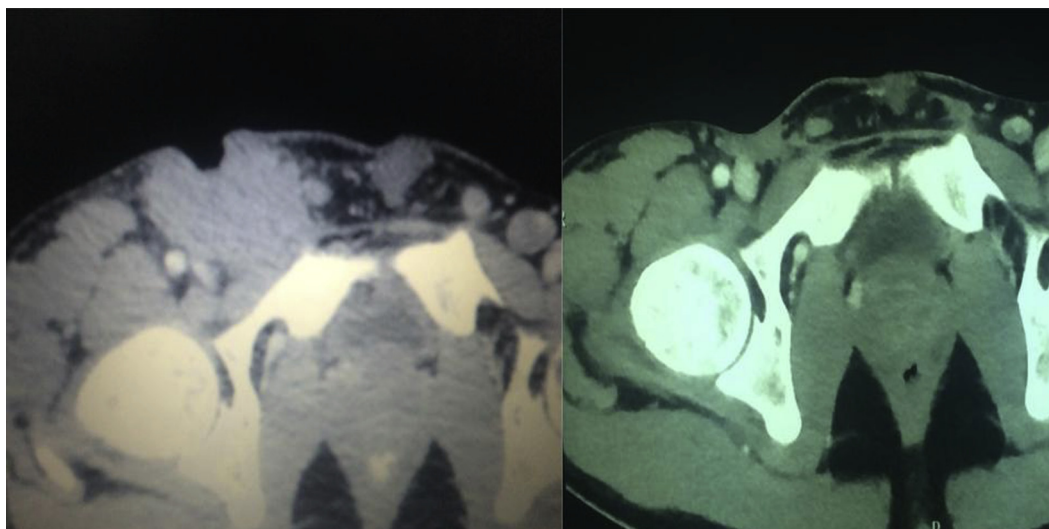
**Figure 1.** Above the inguinal crease, abscess with skin continuity solution, fibrinous background, erythematous and indurated base.



**Figure 2.** Malignant teratoma (microscopy).

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**Figure 3.** CT scan after and before BEP, showing irregular mass in the right inguinal region, isodense, with continuity solution displacing neighboring structures (right) and remission (left).

superficial inguinal adenopathies, with subsequent diagnosis of testicular teratoma.

### Case report

Male patient, 28 years old, with a history of bilateral orchidopexy at 6 years old by cryptorchidism. He comes to consultation 1 month after an open biopsy performed by a general surgeon. Physical examination, wound biopsy was open and infected. He had an inguinal abscess, indurated base, drainage of purulent material, and palpation of the left testicle revealed hard stone mass (Fig. 1).

A Computed Tomography confirmed these findings in addition to multiple retroperitoneal adenopathies.

Left inguinal orchiectomy and incisional biopsy of right inguinal mass adenopathic was performed.

The pathological anatomy reported malignant teratoma (Fig. 2), and indicated chemo with BEP (bleomycin, etoposide, cisplatin) scheme, with remission (Fig. 3).

### Discussion

The lymphatic vessels of the testis form both superficial and deep plexus of lymphatic vessels. Four or five trunks move upwards in the spermatic cord to accompany the testicular blood vessels to the reach the psoas major at the lateral and pre-aortic nodes. From the nodes, efferents issue to the lumbar lateral aortic nodes, and intestinal lymph duct for pre-aortic and intestinal lymph trunks help to form the abdominal confluence or the cisterna chyli, and this drains into thoracic duct. Testut describes that 20% of these lymphatics, upon reaching the iliac bifurcation drain into the internal iliac chain.<sup>2</sup> Therefore, testicular diseases drain into aforementioned retroperitoneal nodules and not into inguinal nodules. Surgeries involving the scrotum or inguinal region, may alter normal lymphatic drainage. An example is the fixation of the testicular parenchyma to the scrotum (at the time of the pexia). Other reasons could be the regional invasion of the tumor

with involvement of the epididymis.<sup>3</sup> There are no data on surgical behavior when there is metastatic inguinal involvement in testicular cancer, since reported cases are scarce. Wheeler et al publication proposed to perform the ipsilateral inguinal and retroperitoneal lymphadenectomy when presenting a patient with a non seminomatous tumor and history of scrotal surgery.<sup>4</sup> Mianne et al, suggest otherwise, discouraging the ipsilateral inguinal lymphadenectomy for these cases.<sup>5</sup> Another aspect to consider is the comorbidity of performing a groin emptying with the risk of lymphocele involved, being easy to control these nodes, by simple palpation or ultrasound. In our literature search found only two cases reported, and none with malignant teratoma.

### Conclusion

Given the lymphatic drainage of the testicle, spermatic cord and wraps, metastasis of testicular tumors in inguinal node is extremely rare. However, we believe that in patients with a history of scrotal surgeries with inguinal nodes study should be deeper and suspect for testicular cancer.

### Conflicts of interest

The authors don't have any conflicts of interest.

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