



Surgical treatment of testicular tumor and its difficult management with indigenous patient

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Abstract: Case description of a male patient, 27 years old, native Brazilian, indigenous, deaf, with a significant growth of left testicle, painless, with infiltrations, insidious beginning and two years of evolution because of the difficulty of monitoring this type of population. Presented high serum level of lactate dehydrogenase (LDH), up to 20 times higher than the maximum reference value. Ultrasound of the testis showed a complex mass on the left testicle, not being able to give an estimate of the volume. The patient underwent a partial left scrotoectomy, associated to radical left orchiectomy, showing an extended invasive testicular tumor and left inguinal lymphadenopathy. Histopathology was compatible with seminoma, weighting 2.600 g, with secondary implants on lungs, retroperitoneum and inguinal region, classified as Stage IIIC. The patient was referred to chemotherapy. Testicular tumor is approached as rare and this is one of the few of its descriptions with such size.

Keywords: Testicular tumor; seminomatous; indigenous; urologic diseases

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Introduction

Most testicular germ cell tumors (GCTs) present an insidious and painless testicular enlargement. They are classified as seminomatous or non-seminomatous. The non-seminomatous tumors have a worse prognosis. Usually, they have testicular symptoms, but in about 10% of cases, the symptoms result from metastatic involvement (1). Delays in diagnosis are common, especially for people with greater difficulty in accessing health care, such as those from indigenous communities. This report will discuss the clinical presentation of GCTs, emphasizing the difficulty of clinical follow-up of an indigenous patient in the city of Manaus, Amazonas state.

Case presentation

A 27-year-old male patient from São Paulo de Olivença,

Amazonas state, single, indigenous and hearing impaired, was admitted to the Hospital and Emergency Room on August 28th with a complaint of the increased left scrotum, painless, starting insidious and progressive two years ago. Two months before, he had already been evaluated in a Urology outpatient clinic of the Hospital Adriano Jorge Foundation. Surgery was suggested but he did not perform it, not attending the subsequent appointments. Upon physical examination at his admission, a significant increase of the left testicle was observed, with tumorous infiltrations in the spermatic cord, inguinal region and adjacent abdominal region (*Figure 1*). The patient was hospitalized due to suspicion of testicular neoplasm, for its investigation and excision of the tumor. Serum levels of tumor markers revealed normal alpha-fetoprotein and β -hCG levels, but lactic dehydrogenase (DHL) was 20 times the upper limit of normal. Ultrasonography of the scrotum revealed a complex, solid, predominantly hyperechogenic mass with



Figure 1 Massive testicular tumor with growth of inguinal lymph nodes.



Figure 2 Excised testicular tumor.

calcifications of the periphery, lobulated contours, with the central and peripheral flow to the Doppler; it was not possible to estimate its volume with the method. Thus, a left partial scrotoectomy was performed, associated with left radical orchiectomy. A much-enlarged testicle (measuring 22 cm × 14 cm × 13 cm) was observed in the intraoperative period (*Figure 2*) due to an extensive tumor that invaded all layers of the scrotum and spermatic funiculus (*Figure 3*). Left inguinal lymph node enlargement was also detected, and the lymph node was excised. The histopathological

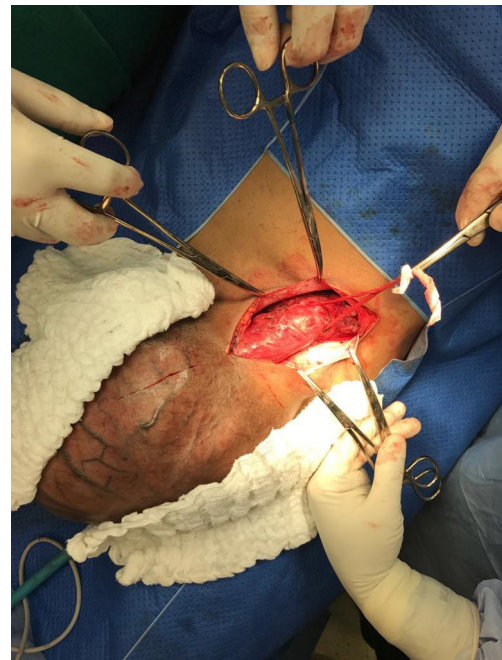


Figure 3 Visualization of the thickened left sperm function.

analysis of the anatomical specimen found suggestive of seminoma, invading spermatic cord, tunica vaginalis and scrotum, with the presence of lymphovascular invasion and compromised margins, as adequately signaled by the pathology team, but there is no image since the patient gave up the follow-up and didn't return after discharge. Tumor staging was completed with the tomography of the thorax, abdomen, and pelvis, which identified pulmonary nodules suggestive of secondary implants and conglomerates of pelvic lymph nodes and retroperitoneal on the left, indicative of lymph node metastases, with the largest being 13 cm × 7 cm (*Figure 4*). The lymph nodes were compressing the left ureter, showing moderate hydronephrosis. According to the IGCCCG prognostic staging system, the disease was classified as Stage IIIC: Primary tumor invading the scrotum with lymphovascular invasion (pT4); regional lymph nodes involved, with a lymph node mass greater than 5 cm (N3); distant lung metastasis (M1a); and serum LDH level with more than 20 times above the normal range (S3). The patient was sent to clinical oncology for chemotherapy schedule.

Discussion

GCTs are the most common solid malignancy in men



Figure 4 Operative wound in the immediate postoperative period.

between 15 and 35 years old (1) and highly sensitive to radiotherapy and chemotherapy. Therefore, it has an excellent long-term prognosis, especially with early diagnosis and appropriate treatment (2). Approximately 10% to 14% of patients initially show a metastatic disease, including abdominal mass, supraclavicular adenopathy, respiratory symptoms, anorexia, nausea, vomiting, low back pain, and lower limb edema. The standard treatment is a radical orchiectomy. Depending on the type of tumor, staging, tumor markers and risk factors of the patient, adjuvant therapy is needed (3). In this case, the patient needed chemotherapy after his primary surgery because the disease was classified in stage IIIC with increased DHL. The difficulty of the clinical follow-up, in this case, was the limiting factor for the most appropriate cancer treatment, which leads to the need for a better understanding on the characteristics of the indigenous population in the country.

According to data from the Demographic Census conducted by the IBGE in 2010, the indigenous population in Brazil was 896.9 thousand (4), most of them located in the northern region of the country. Historically, there was a predominance of infectious diseases in the morbidity and mortality profile of indigenous people. However, the inclusion of new cultural habits and urbanization has helped to increase the incidence of chronic degenerative diseases

such as cancer. In the study published by do Nascimento *et al.* (5), whose objective was to trace the epidemiological profile of indigenous patients with a diagnosis of cancer, it was found that the time interval between the diagnosis of the disease and the beginning of the oncological treatment was extensive, above 60 days in 60% of the cases and with an average time of 113 days. Hence the treatment is very different from the recommendation of the Ministry of Health, who suggests a term of up to 60 days for the beginning of cancer treatment by SUS, counting from the illness diagnosis.

Conclusions

Although testicular cancer has a low mortality rate and high cure rates, especially when detected at an early stage, and despite the increasing advances of indigenous health in Brazil, it is still little enough to actually meet the characteristics of this type of population. Even after the disease diagnosis, clinical follow-up is still an obstacle due to the lack of adaptation for the environmental and cultural change in daily routine. The language barrier is a hindrance to a reliable understanding of what the indigenous refers to his health. Above all, the treatment, the financial difficulty in buying medicines, the differentiated diet, the sadness for the distancing of the village and the longing for family life (6) stand out as difficulty factors. These factors show the need for specialized care in indigenous health homes with the training of health professionals for the peculiarities of each ethnic group. There is also a need for the implementation of public policies for the promotion, health prevention, early detection and treatment of cancer in the indigenous population.

Acknowledgments

None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Written informed consent was obtained from the patient for publication of

this manuscript and any accompanying images.

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