



Primary High-grade Peripheral T-cell Lymphoma of the Testis Clinically Confused With Scrotal Abscess

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Testicular T-cell lymphomas are rare and heterogeneous. Their rarity, nonspecific clinical and radiologic features, histomorphologic heterogeneity, and aberrant immunohistochemical expression may impose diagnostic difficulties for clinicians and pathologists. They may mimic germ cell neoplasms, infectious orchitis, and scrotal abscess. We report a case of a high-grade T-cell lymphoma of the testes in an elderly man with uncontrolled diabetes mellitus. It was clinically and radiologically unexpected and was confused with viral or tuberculous orchitis with abscess formation and systemic sepsis. UROLOGY 127: e3–e5, 2019. © 2019 Elsevier Inc.

A 64-year-old male presented with a gradually enlarging scrotal mass since 4 months with fatigue, fever, and weight loss. A hard nontender

9 × 7 × 5 cm scrotal mass was palpated. The patient is known diabetic and clinically diagnosed with diabetic ketoacidosis, neutrophilia and raised serologic inflammatory

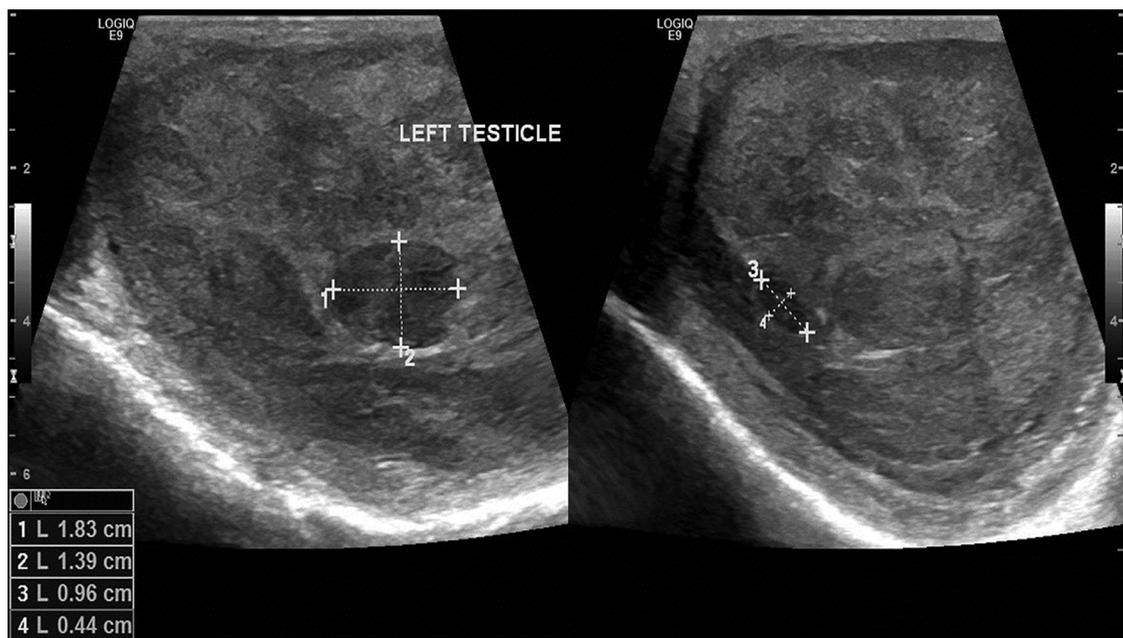


Figure 1. Scrotal ultrasound shows an enlarged left testis with altered parenchymal echotexture and hypoechoic foci within the testis.

Disclosure: No conflict of interests or financial disclosure to be declared by the authors. **Submission Statement:** This manuscript is neither being published nor being considered for publication elsewhere. The manuscript has not been submitted or published and will not be submitted elsewhere for publication. There is no prior presentation of abstracts at meetings and posting on a website. There is no overlap between this submission and any other material published or submitted.

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Submitted: December 18, 2018, accepted (with revisions): February 18, 2019

markers. Ultrasound study showed a diffusely and markedly enlarged left testis with altered echotexture, significantly increased color flow, and multiple hypoechoic foci (Fig. 1). The impression was epididymo-orchitis with abscess. A simple orchietomy was performed via a scrotal incision. Microscopic examination of the specimen showed an unexpected finding of a diffuse infiltrate composed of large pleomorphic neoplastic cells that were CD45, CD3, and CD8 positive (Fig. 2). Other lymphoid, epithelial, sarcoma, germ cell, and viral immunomarkers were negative.

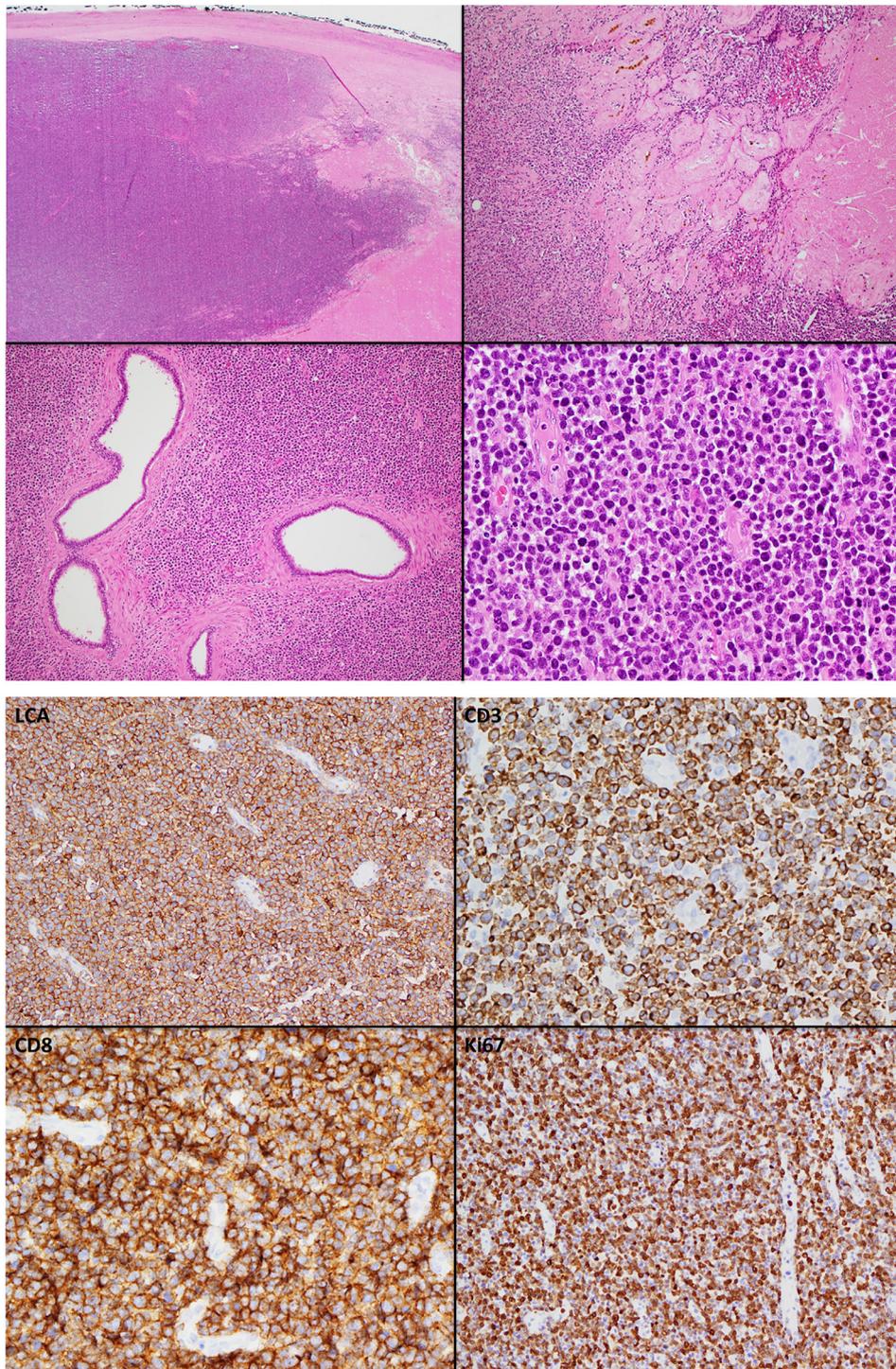


Figure 2. (A) The testis shows a solid homogenous mass with tumor necrosis, infarcted testicular tubules, and thickened capsule (hematoxylin-eosin, original magnification $\times 20$). Remnants of the necrotic atrophic testicular tubules encased by infiltrating interstitial tumor cells with focal fibrosis and tumor necrosis are occasionally seen (H&E $\times 100$). Residual epididymal tubules surrounded by a solid diffuse dense tumor infiltrate are also seen. The tumor cells do not invade the tubular epithelium (H&E $\times 100$). The tumor cells show large pleomorphic irregular hyperchromatic nuclei, some with prominent nucleoli surrounded by abundant cytoplasm. The background shows frequent mitotic figures, apoptotic bodies, and prominent high endothelial venules (H&E $\times 400$). (B) The large neoplastic cells are diffusely and strongly positive for LCA, CD3, and CD8. Ki67 highlights a very high mitotic index (CD45RB, CD3, CD8, and Ki67; Dako, $\times 400$).

Testicular T-cell lymphomas are rare and heterogeneous.¹ Most are primary or secondary extranodal nasal-type natural killer T-cell lymphomas in Asians.² Their rarity, histologic, and immunohistochemical heterogeneity and nonspecific clinical and radiologic presentations are diagnostically challenging.³ Morphologically, they can be mistaken for seminoma, sarcomas, and leukemias. Patients usually have B-symptoms. They can be clinically and radiologically confused with viral or tuberculous orchitis with scrotal abscess and systemic sepsis.⁴ Clinicians and pathologists should be aware of this possibility and extend their differential diagnosis to include testicular lymphomas particularly in elderly patients. The trans-scrotal approach also implies that additional steps such as scrotectomy or radiation to the scrotal skin that might have been contaminated with tumor cells need to be taken.

SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found in the online version at <https://doi.org/10.1016/j.urology.2019.02.019>.

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