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Case Study of the Month

Metastatic Spermatocytic Seminoma – An Extremely Rare Disease

Hannes Steiner [a,*], *Christian Gozzi* [a], *Irmgard Verdorfer* [b], *Gregor Mikuz* [b], *Georg Bartsch* [a], *Alfred Hobisch* [c]

[a] *Department of Urology, Medical University Innsbruck, Anichstrasse 35, 6020 Innsbruck, Austria*
[b] *Department of Pathology, Medical University Innsbruck, Austria*
[c] *Department of Urology, General Hospital of Feldkirch, Austria*

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Abstract

Metastatic spermatocytic seminoma is an extremely rare disease with only one documented case in literature. We present another patient with metastatic disease confirmed by histological work-up after laparoscopic retroperitoneal lymph node dissection (L-RPLND).

* Corresponding author. Tel. +43 512 504 24811; Fax: +43 512 504 28365.
E-mail address: hannes.steiner@uibk.ac.at (H. Steiner).

1. Case report

In March 2002, a previously healthy 26-year-old man underwent right orchiectomy for an intratesticular tumor of 7cm in diameter. Diagnosis of a spermatocytic seminoma with vessel invasion without sarcomatous elements (stage pT2 V1 R0) was made based on typical histomorphological features (Fig. 1A) and detailed immunohistochemical analyses (negative staining: vimentin, actin, desmin, α-fetoprotein [AFP], beta human chorionic gonadotropin [βhCG], CD3, CD5, CD20, CD30, CD56, cytokeratin-CAM.5.2, placental/germ cell alkaline phosphatase [PLAP]). Molecular cytogenetic analysis were recently published [1]. Complete staging including abdominal and chest computed tomography as well as determination of tumor markers AFP, βhCG and lactate dehydrogenase (LDH) revealed no suspicion for metastatic disease. Due to lack of standard treatment and because of histological proven vessel invasion, two cycles of carboplatin monotherapy (400 mg/m^2) were administered according to the treatment regimen for classical seminoma at our department.

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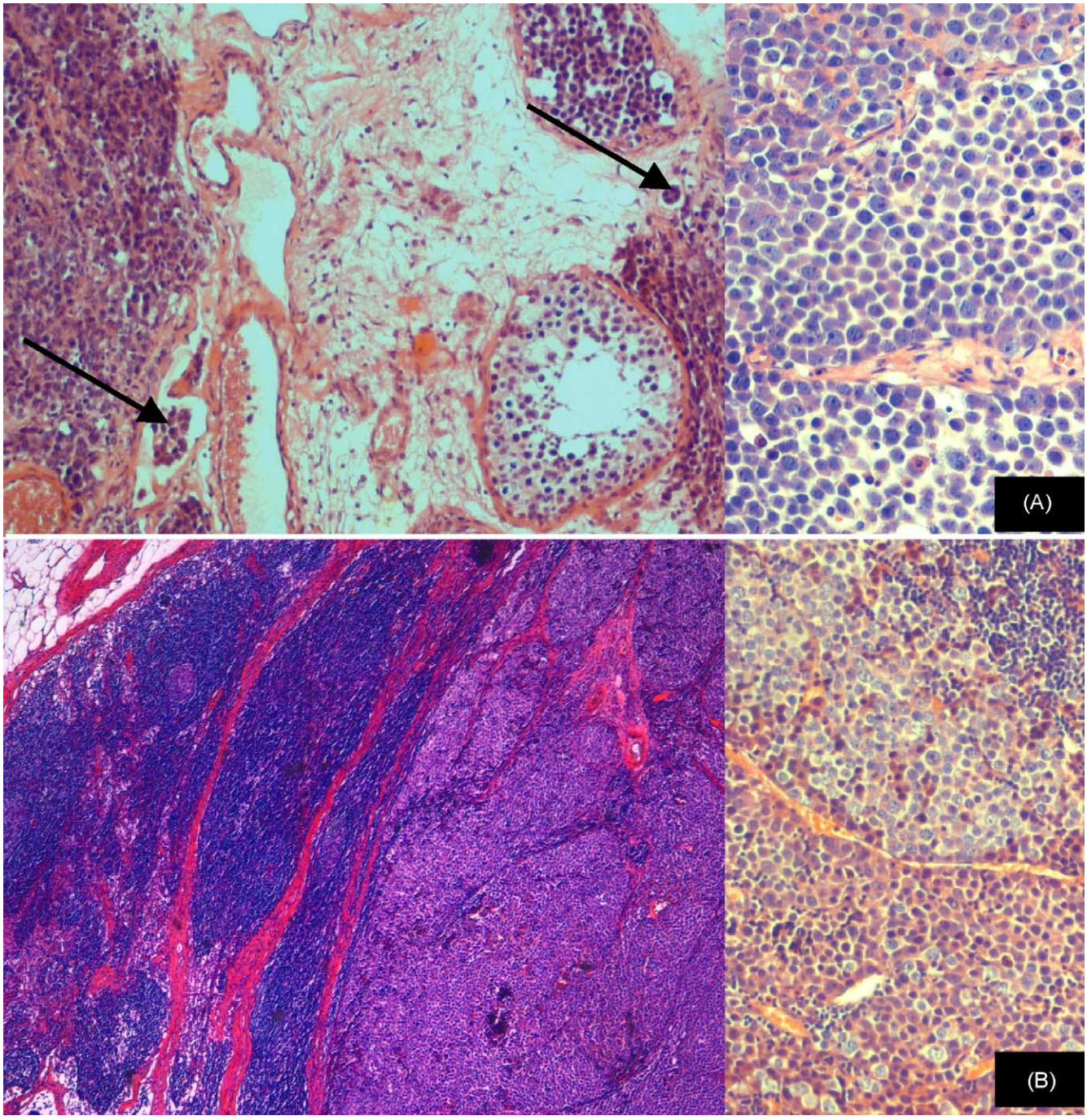

Fig. 1 – Histology A: **primary testicular tumor, typical structure of a spermatocytical seminoma, lymphatic and blood vessel invasion (arrows), H&E. ×100, small picture H&E. ×200.** B: **tumor tissue in lymph node, H&E ×40, small picture H&E. ×100.**

Follow-up was uneventful (regression of a former unsuspicious 0.7 cm lymph node to 0.3 cm on CT scan) until an enlarged interaortocaval mass of 2.9 cm (Fig. 2) was identified 10 months later. Tumor markers and screening test for Epstein-Barr virus, human immunodeficiency virus and cytomegalovirus were negative. Neither in bone marrow nor in circulating blood cells evidence of lymphoproliferative disease was identified. Orchiectomy specimen was reviewed by the department of pathology and an additional reference center (Department of Histopathology, University College London Medical School, Great Britain) and the initial diagnosis was confirmed. L-RPLND was performed to establish a histopathological diagnosis of the retroperitoneal mass and thereby facilitate management (Fig. 2D).