Recurrence of a non-seminomatous germ cell tumor in the seminal vesicle 20 years after initial diagnosis and treatment

Jean-Baptiste Lattouf, MD, Michael Mc Cormack, MD, Louise Yelle, MD, Rachid Hadjeres, MD, Fred Saad, MD

Centre Hospitalier de l'Université de Montréal (CHUM- Notre-Dame Hospital), Montréal, Quebec, Canada

LATTOUF J-B, MCCORMACK M, YELLE L, HADJERES R, SAAD F. Recurrence of a non-seminomatous germ cell tumor in the seminal vesicle 20 years after initial diagnosis and treatment. The Canadian Journal of Urology. 2004;11(4):2350-2351.

We present a case of a pathologic stage 1, right sided, non-seminomatous germ cell tumor recurrence in the left seminal vesicle, 20 years after initial diagnosis and treatment. The patient was treated with three salvage cycles of bleomycin, etoposide, and cisplatinum. At 24 months of follow-up after completion of chemotherapy, digital rectal and TRUS examinations revealed complete resolution of the lesion. We believe that this tumor is a late metastasis to the contralateral seminal vesicle.

Key Words: germ cell tumor, seminal vesicle, late recurrence

Case report

A 49 year old white male presented in 2001 with slight asthenia. Past medical history revealed a right orchiectomy in 1980 at 28 years of age for teratocarcinoma. Tumor markers were negative. A retroperitoneal lymph node dissection (RPLND) confirmed pathologic stage 1. Subsequent physical examinations, serum tumor markers, and radiographic exams revealed no evidence of disease recurrence for the subsequent 5 years (NED). Eight years after testis tumor diagnosis an episode of gross hematuria prompted a cystoscopy and an intravenous urogram, which were unremarkable. Physical examination, at the time of the current complaint, demonstrated a firm nodule at the left base of the prostate. All labs were unremarkable, including serum tumor markers (prostate specific antigen 1.0 ng/ml). Suspicious digital rectal examination findings prompted a transrectal ultrasound (TRUS), which demonstrated a well delineated 1.5 cm lesion in the left seminal vesicle and an unremarkable prostate. Biopsies of the left seminal vesicle showed a non seminomatous germ cell tumor. Tissue markers were negative for PSA, acid phosphatase, cytokeratin AE1-AE3- 8 to 18- 7- CD68, synaptophysine, chromogranine, protein S-100, CD3,

Accepted for publication August 2004

Address correspondence to Michael McCormack, Dept. of Urology, Notre Dame Hospital (CHUM), 1560 Sherbrooke Street East, Montreal, Quebec H2L 4M1 Canada

CD45, CD20, desmine and CA 125. Faint staining for placental alkaline phosphatase was found. Prostate biopsies were negative. A metastatic work-up was unremarkable and consisted of serum tumor markers, ultrasound of the remaining testis, and computed tomography (CT) of the thorax, abdomen and pelvis. The patient was treated with three salvage cycles of bleomycin, etoposide, and cisplatinum. At 24 months of follow-up after completion of chemotherapy, digital rectal and TRUS examinations revealed complete resolution of the lesion. Similarly, standard follow-up reveals NED.

Discussion

We present a case of a pathologic stage 1, right sided, non-seminomatous germ cell tumor (NSGCT) recurrence in the left seminal vesicle, 20 years after initial diagnosis and treatment. Tumors of the seminal vesicles are extremely rare and have been recently reviewed.[1] Carcinoma is the most prevalent primary tumor arising in the seminal vesicle. Other primary tumors of the seminal vesicles include fibromas, myomas and sarcomas but these tumors are exceedingly rare.[1] To our knowledge only two primary germ cell tumors of the seminal vesicle have been described.[2,3] Germ-cell metastasis to the seminal vesicle has been described in a patient 2 years after treatment.[4] Our case is particular in that the metastatic lesion appeared 20 years after treatment. As our patient had been treated for a right testis germ cell tumor 20 years earlier we believe that this tumor is a late metastasis to the contralateral seminal vesicle.

Response to chemotherapy in late recurrence NSGCT is less than 30% and in most cases complete surgical resection remains the treatment option with the most favorable long-term results. Baniel et al[5] reported chemoresistance in 81 patients with late recurrence of NSGCT and recommended surgery as the primary treatment modality. In this series only 17 of 65 patients who received primary chemotherapy had a complete response and the majority of the disease-free patients were managed by surgery as the primary treatment modality or post chemotherapy. Gerl et al[6] also reported chemoresistance and recommended surgery as a first line of treatment. However platinum-based chemotherapy followed by surgical resection of any residual tumor may be a treatment option for patients with late recurrence NSGCT in chemotherapy-naïve patients and for patients who would require a surgery with unacceptably high morbidity, as was the case for our patient.[7,8] Correspondingly, complete response to platinum-based therapy has been reported in chemotherapy-naïve patients.[8,9] In our case at 24 months of follow-up after completion of chemotherapy, digital rectal and TRUS examinations revealed complete resolution of the lesion. We believe that chemotherapy-naïve patients with late recurrent NSGCT may be treated with platinum-based chemotherapy and, if complete remission is achieved, may be followed closely without the need for surgery.

Another interesting aspect of our case concerns the need for long-term follow-up in patients with NSGCT. Baniel et al suggested that patients treated for germ cell tumors should be followed indefinitely.[5] Shahidi et al[10] report that very late recurrence (> 5 years) occurs mainly in patients with metastatic NSGCT with a 1% annual risk of recurrence between 5 and 10 years. Our case illustrates that late recurrence can also occur in patients initially treated for pathologic stage 1 NSGCT. □

References

1. Thiel R, Effert P. Primary Adenocarcinoma of the Seminal Vesicles. *J Urol* 2002;168(5):1891-1896.
2. Fairey AE, Mead GM, Murphy D. Theaker J. Primary seminal vesicle choriocarcinoma. *Br J Urol* 1993;71(6):756-757.
3. Adachi Y, Rokujyo M, Kojima H, Nagashima K. Primary seminoma of the seminal vesicle: report of a case. *J Urol* 1991;146(3):857-859.
4. Tornblom M, Fredriksson A, Larsson P, Zimmermann R, Hedenborg L. Seminal vesicle metastasis—an overlooked occurrence of testicular tumours? *Br J Urol* 1996;77(1):160-162.
5. Baniel J, Foster RS, Gonin R, Messemer JE, Donohue JP, Einhorn LH. Late recurrence of testicular cancer. *J Clin Oncol* 1995;13:1170-1176.
6. Gerl A, Clemm C, Schmeller N, Hentrich M, Lamerz R, Wilmanns W. Late relapse of germ cell tumors after cisplatin-based chemotherapy. *Ann Oncol* 1997;8:41–47.
7. Papadimitris C, Papadimitriou C, Kokolakis N, Athanassiades P, Dimopoulos MA. Late relapse of nonseminomatous germ cell tumor of the testis: successful treatment with salvage chemotherapy alone. *Urology* 1997;49(3):469-470.
8. George DW, Foster RS, Hromas RA, Robertson KA, Vance GH, Ulbright TM, Gobbett TA, Heiber DJ, Heerema NA, Ramsey HC, Thurston VC, Jung SH, Shen J, Finch DE, Kelley MR, Einhorn LH. Update on late relapse of germ cell tumor: a clinical and molecular analysis. *J Clin Oncol* 2003;21(1):113-122.
9. Kuczyk MA, Bokemeyer C, Kollmannsberger C, Corvin S, Anastasiadis A, Machtens S, Merseburger A, Wegener G, Stenze A, Hartmann JT, Jonas U. Late relapse after treatment for nonseminomatous testicular germ cell tumors according to a single center-based experience. *World J Urol* 2004;22(1):55-59
10. Shahidi M, Norman AR, Dearnaley DP, Nicholls J, Horwich A, Huddart RA. Late recurrence in 1263 men with testicular germ cell tumors. Multivariate analysis of risk factors and implications for management. *Cancer* 2002;95(3):520-530.