Case Report

Brazilian Journal of Urology
Official Journal of the Brazilian Society of Urology

Vol. 28 (2): 135-137, March - April, 2002

MALIGNANT MESOTHELIOMA OF THE TUNICA VAGINALIS

KÁTIA R. M. LEITE, WILLIAM C. NAHAS, LUIZ H. CAMARA-LOPES

Laboratory of Molecular and Surgical Pathology, Sírio Libanês Hospital, São Paulo, SP, Brazil

ABSTRACT

Malignant mesothelioma of tunica vaginalis is a rare and aggressive neoplasm. It occurs in 55 to 75-year-old men, but 20% of the 76 cases reported affected patients in the first 3 decades. It presents as hydrocele and tumor mass, and the preoperative diagnosis is made only in 3% of the cases. The orchiectomy should be the first choice for treatment and adjuvant radio and chemotherapy are indicated only in disseminated disease. Age over 60 and dissemination previously to the diagnosis are the worst prognostic parameters. Local recurrence, followed by inguinal and iliac lymph node metastasis, are the most frequent outcome. Metastasis to other organs are very rare. The median survival rate is 23 months.

We report a case of malignant mesothelioma of the tunica vaginalis, epithelial type, affecting a 74-year-old man treated by inguinal orchiectomy, which developed local recurrence 2 months after surgery.

Key words: testis; tumor; testicular neoplasms; tunica vaginalis; mesothelioma
Braz J Urol, 28: 135-137, 2002

INTRODUCTION

Only 76 cases of malignant mesothelioma of the tunica vaginalis have been reported in the English literature. Although the typical tumor affects men between 55 and 75 years of age, 10% of patients are younger than 25. Previous exposure to asbestos is reported in 40% of the patients. A firm mass may be palpated, often associated with hydrocele. In 75% of the cases microscopic examination reveals epithelial, papillary mesothelioma. The outcome is unfavorable and the median survival is 23 months, besides any adjuvant therapy (1-3). We report a case of malignant mesothelioma of tunica vaginalis in a 74-year-old man treated with orchiectomy that developed precocious local recurrence, only 2 months after surgery.

CASE REPORT

A 74-year-old man presented with an ill-defined firm mass in the left testicle, which had developed within the last 3 months. In 1995 the patient was submitted to herniorrhaphy, and 6 months later to hydrocelectomy, and no lesion was detected at that time. There were no other urological or systemic symptoms. The physical examination revealed a firm mass infiltrating the testicular parenchyma. The left inguinal orchiectomy was done, after occlusion of the vascular pedicle. Gross examination revealed a multinodular, firm, whitish mass, 5.5 cm in diameter, infiltrating the distal portion of the spermatic cord, extending to the epididymis and infiltrating the testicular parenchyma (Figure-1). The histology showed a well-differentiated epithelial mesothelioma, tubulopapillary type, infiltrating the spermatic cord, and extending to the epididymis and testicular parenchyma (Figure-2). The mitotic index was high (3/10 high power field - HPF), and focal necrosis was seen. Immunohistochemistry showed strong positivity of tumor cells for antibody anti-cytokeratins (AE1-AE3; Dako, Carpinteria, CA, USA), and no expression of CEA (Dako). The surgical margins were free of tumor. Therefore, the resection

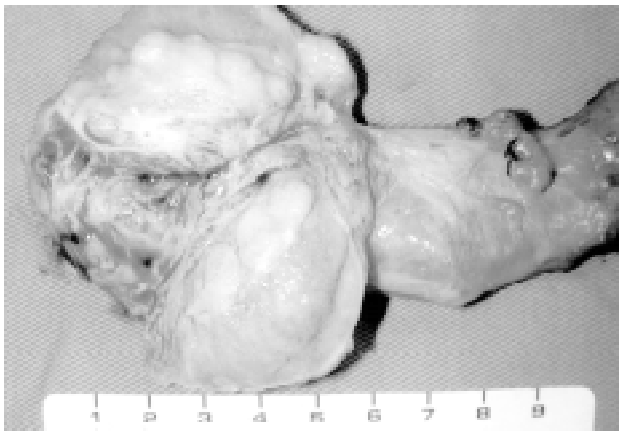

Figure 1 - *Surgical specimen of left testicle with spermatic cord demonstrating a multinodular tumor mass 5.5 cm in diameter infiltrating the distal portion of the spermatic cord, epididymis and the testicular parenchyma.*

was considered complete, and no other therapy was introduced. Two months after surgery, a subcutaneous nodule was detected at the scrotal wall. It was, at first, partially resected and the histology revealed a well-differentiated epithelial mesothelioma, with the very same microscopic aspect of the previous tumor. After diagnosis a hemiscrotectomy was performed.

COMMENTS

The age and presentation, as well as a disseminated disease, are the most important prognostic parameters in this rare neoplasia. A review published by Plas et al. (1) showed a median survival of 23 months for a group of 73 malignant mesotheliomas of tunica vaginalis reported in 30 years. Recurrence occurred in 52.5% of the cases and it decreased survival to 14 months. Approximately 20% of cases occurred in patients in the first 3 decades. The prognosis is better for this group of patients.

The epithelial type mesothelioma accounts for 75% of tumors and florid mesothelial hyperplasia is the first differential diagnosis. The later is a benign lesion, and the tumor mass formation excludes this entity. Clinical profile of carcinoma of the rete testis overlaps with malignant mesothelioma, and both tumors have papillary and tubular patterns. The location of the tumor within the rete testis, the evidence of continuity with rete testis and the positivity for CEA at immunohistochemistry are important to distinguish these 2 lesions.

Inguinal orchiectomy is the first-line surgical approach, and adjuvant therapy has been indicated only in patients with disseminated disease. Radiotherapy and different regimes of chemotherapy have been given and no remission was achieved. Sixty percent of recurrences occur within 2 years of follow-up, and local recurrence was reported in 23.7% of patients, with scrotal skin involvement in 10% of the cases. The involvement of inguinal or iliac lymph nodes occurs in 3 to 5% of the cases and the need of their dissection is still a matter of discussion. Visceral metastasis are rare and the involvement of lung and liver is reported in 10% and 4%, respectively.

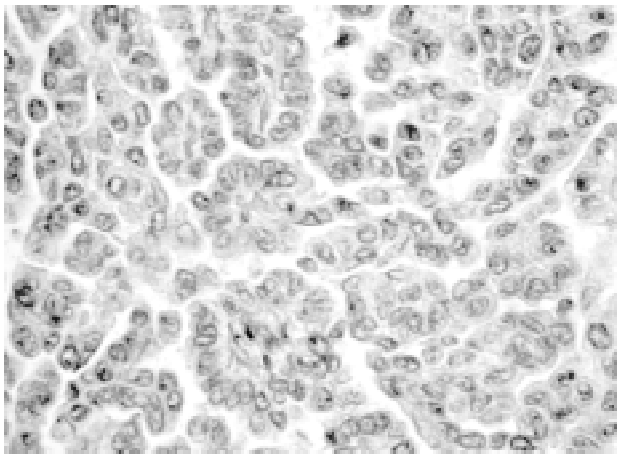

Figure 2 - *Photomicrography of a well-differentiated epithelial, tubulopapillary malignant mesothelioma (HE, X400).*

REFERENCES

1. Plas E, Claus RR, Pflüger H: Malignant mesothelioma of the tunica vaginalis testis. Review of the literature and assessment of prognostic parameters. Cancer, 83: 2437-2446, 1998.
2. Butnor KJ, Sporn TA, Hammar SP, Roggli VL: Well-differentiated papillary mesothelioma. Am J Surg Pathol, 25: 1304-1309, 2001.

3. Ulbright TM, Amin MB, Young RH: Miscellaneous Primary Tumors of The Testis, Adnexa, and Spermatic Cord. Hematopoietic Tumors. Secondary Tumors. In: Rosai J (ed.). Atlas of Tumor Pathology. Tumors of the Testis, Adnexa, Spermatic Cord and Scrotum. Washington DC, AFIP, pp. 247-253, 1999.

Received: December 10, 2001
Accepted after revision: March 3, 2002

Correspondence address:
Dr. Katia Ramos Moreira Leite
Rua Dona Adma Jafet, 91
São Paulo, SP, 01308-050, Brazil
Fax: + + (55) (11) 3231-2249
E-mail: katiaramos@uol.com.br