Caso clínico
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Adenocarcinoma de la red testicular asociado con cáncer de próstata resistente a la castración

Adenocarcinoma of the rete testis associated with castration-resistant prostate cancer

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Abstract

BACKGROUND: Adenocarcinoma of the rete testis is a very rare diagnosis with only about 60 reported cases. To the best of our knowledge, the present report is the first on that tumor associated with prostate cancer.

CLINICAL CASE: An 84-year-old man with a history of castration-resistant prostate cancer presented with a non-tender, solid, right testicular mass. Tumor markers were within normal limits. The patient underwent radical inguinal orchiectomy and the pathology study reported adenocarcinoma of the rete testis. Diagnosis was confirmed through immunohistochemistry and staining was positive for high molecular weight cytokeratin (CK HMW) and cytokeratin 5/6, and negative for PSA.

CONCLUSION: Adenocarcinoma of the rete testis is a very rare condition. Clinical presentation of those tumors is nonspecific, and the diagnostic immunohistochemistry profile has not been well defined. Prognosis is poor, with a short overall survival rate.

KEYWORDS: Adenocarcinoma; Immunohistochemistry; Orchiectomy; Rete testis; Testicular neoplasms

Resumen

ANTECEDENTES: El adenocarcinoma de la red testicular representa una enfermedad rara, con solo 60 casos reportados en la bibliografía. En nuestro conocimiento, este es el primer caso reportado de una neoplasia similar asociada con cáncer de próstata.

CASO CLÍNICO: Paciente masculino de 84 años de edad, con antecedente de cáncer de próstata resistente a la castración, manifestado como una masa testicular derecha, sólida, no dolorosa. La determinación de marcadores resultó dentro de los límites de referencia. Se realizó orquiectomía radical derecha y mediante el estudio histopatológico se estableció el diagnóstico de adenocarcinoma de la red testicular. Las tinciones para citoqueratina de alto peso molecular y citoqueratinas 5 y 6 resultaron positivas; el antígeno prostático resultó negativo.

CONCLUSIÓN: El adenocarcinoma dela red testicular es una neoplasia poco común, su manifestación es inespecífica y el diagnóstico por inmunohistoquímica sigue discutiéndose. El pronóstico es malo, con supervivencia global corta.

PALABRAS CLAVE: Adenocarcinoma; immunohistoquímica; orquiectomía; red testicular; rete testis; tumor testicular.

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INTRODUCTION

Primary adenocarcinoma of the rete testis was first reported by Feek and Hunter in 1945.[1]

It is a very rare diagnosis, with only about 60 reported cases. It tends to be found in the elderly, with its peak incidence in patients 70 years of age.[2]

To the best of our knowledge, the present report is the first on adenocarcinoma of the rete testis associated with prostate cancer.

CLINCIAL CASE

An 84-year-old man presented with a history of castration-resistant prostate cancer treated with abiraterone acetate and prednisone and a history of urinary retention, with an indwelling catheter.

Physical examination revealed a non-tender, solid, poorly-defined right testicular mass. Neither the testis nor the epididymis could be identified at palpation. Tumor markers were within normal limits (**Figure 1**). The patient underwent radical orchiectomy and pathologic evaluation was carried out.

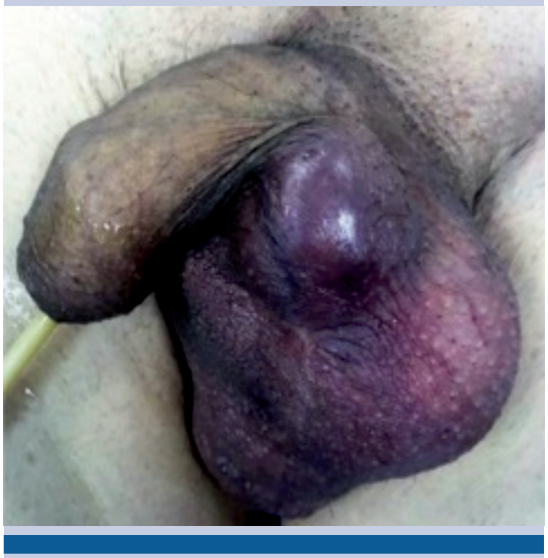

Figure 1. Physical evaluation revealing a testicular mass.

Macroscopic examination of the surgical specimen showed a 9 x 7 x 6-cm whitish, rough, renitent, heterogeneous mass (**Figure 2**).

Histologically, the tumor was a well-defined adenocarcinoma of the rete testis with a biphasic pattern, infiltration of the tunica vaginalis and epididymis, and lymphovascular invasion. Immunohistochemistry staining was positive for high molecular weight cytokeratin (CK HMW) and cytokeratin 5/6, and negative for PSA (**Figure 3**). After those findings, chemotherapy was offered but it was refused.

DISCUSSION

Adenocarcinoma of the rete testis is a very rare entity. Upon initial evaluation, patients tend to have sought medical attention for a non-painful testicular mass, and tumor markers are usually negative.[3]

In some cases, physical examination can evidence an associated inguinal hernia, hydrocele, undescended testis, epididymitis, or hematocele.[4]

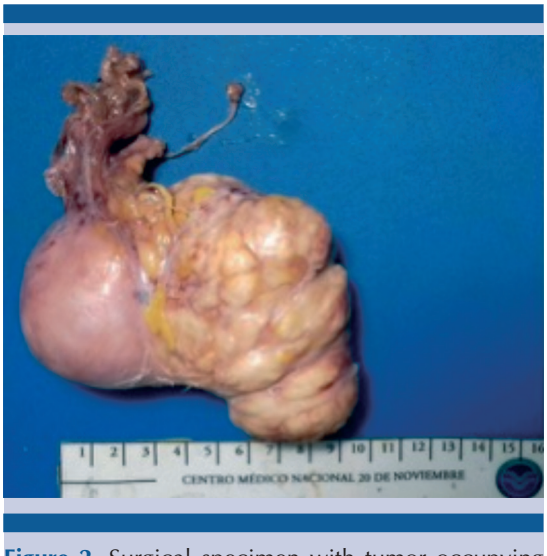

Figure 2. Surgical specimen with tumor occupying more than 60% of the testicular parenchyma.

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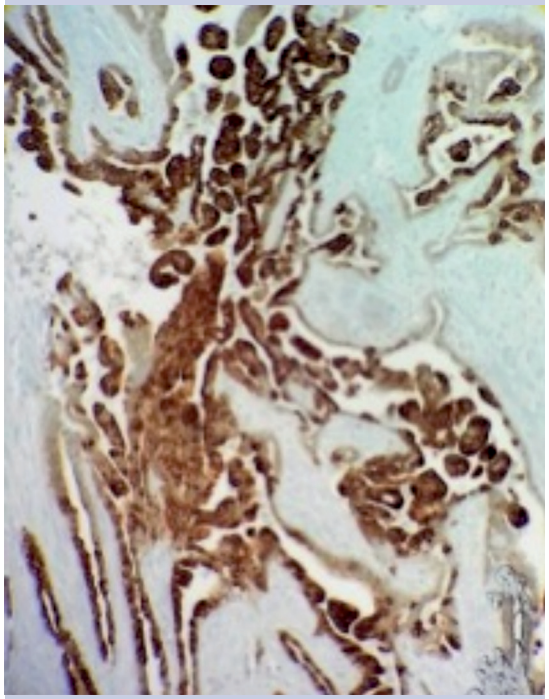

Figure 3. Tumor cells filling the glandular spaces and forming papillary protrusions into the lumen, with immunohistochemical staining positive for cytokeratin 5/6, reduced from x400.

Our patient presented with none of those conditions. On the other hand, he had a history of castration-resistant prostate cancer, and to the best of our knowledge, the present report is the first on adenocarcinoma of the rete testis associated with prostate cancer.

Diagnosis is made according to pathologic findings. A few cases have been evaluated using immunohistochemistry and were positive for cytokeratin, epithelial membrane antigen, and carcinoembryonic antigen. However, the immunohistochemistry profile has not been well defined.[5-7]

All the criteria for diagnosing primary carcinoma of the rete testis, which have been reported and revised by Nochomovitz and Orenstein, were fulfilled in the current case: absence of histologically similar extra-scrotal tumor that plausibly could be the primary site, tumor centered on the hilum, morphology incompatible with any other type of testicular or paratesticular tumor, and immunohistochemical exclusion of other possibilities.[8]

In our case, metastatic extension from the prostate was excluded due to negative staining for PSA.

Because adenocarcinoma of the rete testis is extremely rare, there is a lack of consensus regarding treatment and follow-up strategies. Consequently, prognosis of those neoplasms is poor, with a 5-year survival rate of 13%.[9]

Different adjuvant therapies have been described: retroperitoneal lymph node dissection, radiotherapy, and chemotherapy; all of them inducing only poor response.[10]

Data are scarce regarding treatment and follow-up strategies due to the rarity of the tumor.

Immunohistochemistry could be useful for achieving an accurate diagnosis in such cases.

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