Arch. Esp. Urol., 60, 1 (99-102), 2007

SECONDARY TESTICULAR PLASMOCYTOMA.

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Summary.- *OBJETIVE: To report a rare case of secondary testicular plasmocytoma in the context of a testicular mass.*

METHOD: We introduced a patient with plasmocytoma and a testicular infiltration of his systemic affection.

RESULT: An inguinal orquiectomy was performed to treat the testicular infiltration and no recurrence of the process was seen after 6 months of follow up.

CONCLUSIONS: Plasmacytoma is a plasma cell tumor that involves bone marrow or extramedullary sites. Testicular infiltration by plasma cells such as plasmacytoma happens in only 2 % of cases of all plasma cell neoplasm

Keywords: *Testicular tumor. Plasmocytoma. Myeloma.*

Resumen.- *OBJETIVO: Presentar un caso raro de plasmocitoma testicular secundario en el contexto de una masa testicular.*

MÉTODOS: Se trata de un paciente con un plasmocitoma y con infiltración testicular de su proceso sistémico.

RESULTADO: Para tratarlo se realizó una orquiectomía por vía inguinal, sin presentar recidiva de su proceso sistémico tras 6 meses de seguimiento.

CONCLUSIONES: El plasmocytoma es una tumoración de células plasmáticas que puede asentar sobre la médula ósea o sobre zonas extramedulares. La infiltración testicular por células plasmáticas ocurre sólo en el 2 % de los caso de tumores de células plasmáticas.

Palabras clave: *Tumor testicular. Plasmocitoma. Mieloma.*

INTRODUCTION

Testicular cancer is the most common solid malignancy affecting males between 15 and 35 years of age. Plasmacytoma is a plasma cell tumor that involves bone marrow or extramedullary sites, which happens in 28 % of the patients. Testicular infiltration by plasma cells such as plasmacytoma happens in only 2 % of cases of all plasma cell neoplasm and is generally considered to be a local manifestation of a systemic plasma cell disorder, rather than a primary neoplasm. The prognosis of a testicular plasmacytoma varies if it´s associated or not to multiple myeloma, being poor in the cases of association to multiple myeloma. Standard treatment for testicular plasmacytoma is radical orchiectomy. Chemoterapy and radiation have not been successful.

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Accepted for publication: May 12th, 2006.

CASE REPORT

A 58 year-old with a 5 day history of fever, cough and left thoracic pain. The patient´s medical history revealed a solitary bone plasmacytoma affecting the cervical spine diagnosed 3 years ago. It was treated with radiotherapy and chemotherapy. One year later he had a recurrence mass in the left eye socket treated with radiotherapy and a autologous transplant. His physical examination was unremarkable except for the right testicle, which was enlarged and exhibited a firm and irregular mass in its low pole fixed to the testicular tissue. The left testicle was normal. When asked about it, he told a 3-month history of painless gradually enlarging mass. A thorathic TC showed a lytic lession in the fourth left rib. Scrotal sonography showed a 4 x 3,5 cm heterogeneous mass with marked hypervascularity affecting the mid and low portion of the right testicle (Figure 1). The values of the α-Fetoprotein and the β-human chorionic gonadotropin were in the normal range. A right inguinal orchiectomy was performed and the mass weighted 270 grams (Figure 2). Pathological examination of the specimen revealed a well delimited mass extended to the edge of the testis but it did not infiltrate the tunica albuginea, the epididymis or the spermatic cord. The tumor was entirely composed of plasma cells. Inmunohistochemical studies showed positivity for CD 138, and strong exclusived positive intracitoplasmatic staining for light chains (κ) (Figure 3).

DISCUSSION

Testicular cancer is the most common solid malignancy affecting males between 15 and 35 years of age. The incidence of testicular cancer has a bimodal distribution, with a first peak of between 15 and 35 years of age, and a second small peak after 75 years. Primary germ cell tumors account for most of the neoplasm in the first group and testicular lymphomas being more common in the second (1).

Plasmacytoma is a plasma cell tumor that involves bone marrow or extramedullary sites, which happens in 28 % of the patients (2). Solitary plasmacytoma is a very rare entity, affecting only 6 % of all plasma cells neoplasm (3). Testicular infiltration by plasma cells such as plasmacytoma happens in only 2 % of cases of all plasma cell neoplasm (4). Although it is usually an autopsy finding devoid of clinical expression, it can, on occasion, be the first

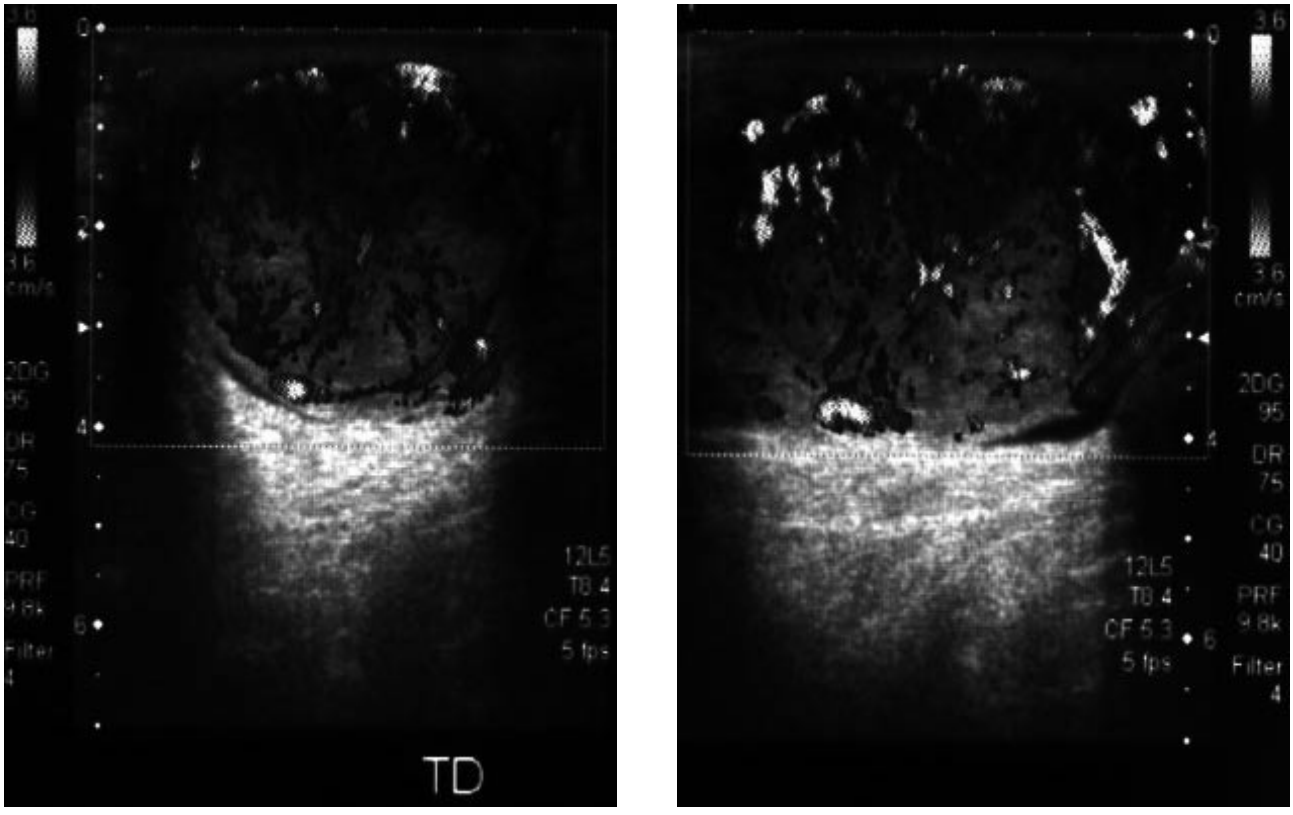

FIGURE 1. Right testicle doppler sonography, showing a heterogeneous mass with marked hypervascularity.

manifestation of a multiple myeloma or exceptionally, the unique location of a plasma cell neoplasm. Testicular plasmacytoma is a rare cause of intratesticular neoplasia. Levin and Mostofi (5), found in a review of about 6000 testicular and peritesticular tumors at the American Testicular Tumor Registry only seven cases of plasmacytomas. Gowing (6), using information from 2700 cases of the British Testicular Tumor Panel, foud only three plasmacytomas. There for, the incidence of Testicular Plasmacytoma based on these two studies appears to be as much as one case in 1000 testicular tumors.

Extramedullary plasmacytomas are neoplastic collections of plasma cells occurring outside the bone marrow. They most commonly involve the nasopharyngeal area and the upper respiratory tract, being in these cases radiosensitive and having a significantly better overall survival than multiple myeloma (7). Other sites of location described are: lymph nodes, lung, gastrointestinal tract, kidney, pancreas, adrenal, heart, breast, skeletal muscle, subcutaneous tissue, pleura and pericardium (8). A more unusual location is the testicle. 20 % of patients with extramedullary plamacytomas affecting non-head and neck sites such as the gastrointestinal tract, lungs and testis have a poorer prognosis (9). Anghel et al. (10) reported 52 cases of testicular plasmacytoma published between 1939 and 2002. Most of these cases had previous or concurrent multiple myeloma or extramedullary plasmacytoma, being primary testicular plasmocytoma at onset very few. Plamacytoma of the testes is generally considered to be a local manifestation of a systemic plasma cell disorder, rather than a primary neoplasm (5, 11). While usually only a single testes contains plamacytoma, the tumor sometimes involves both testes, often asynchronously (5). To the date only three cases of bilateral synchronous testicular plasmacytoma have been published (12). The clinical presentation of testicular plasmacytoma may be identical to that of any other primary or metastatic testicular neoplasms. Other non-neoplastic processes such as tuberculosis, syphilitic or autoimmune granulomatous orchitis may also be presented as a testicular mass (13). Painless testicular swelling is the most common chief complaint, although hydrocele of the testis was found in two cases (14).

Sonographically, no specific echo pattern enables definite prediction of the type of testicular malignancy (15). Sonographic gray scale imaging of testicular plasmacytomas has shown them to be either homogeneous or heterogeneous and primarily hypoechoic (15). When marked hypervascularity is present in a testicular mass in a patient unlikely to have orchitis on clinical grounds, plasmacytoma should be considered in the differential diagnosis (16).

The deferential diagnosis of a testicular plasmacytoma should be made especially with spermatocitic seminomas and with lymphomas (17).

The prognosis of a testicular plasmacytoma varies if it´s associated or not to multiple myeloma (17). A review of 37 cases of testicular plasmacytoma showed that over 80 % had concurrent multiple myeloma. The prognosis of patients with testicular plasmacytoma and multiple myeloma is poor, with postoperative survival ranging from five weeks to forty-eight months, being the average survival of only

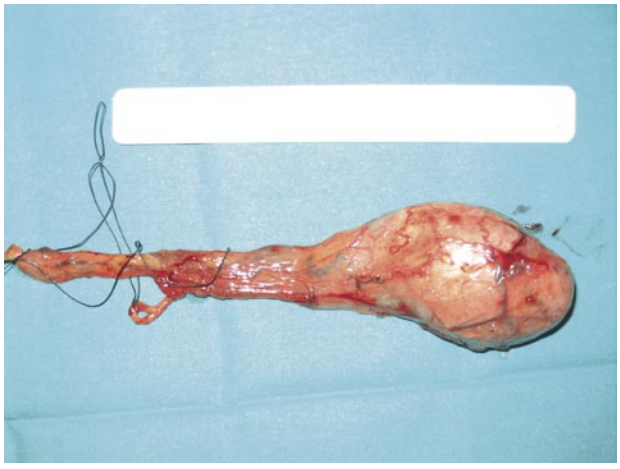

FIGURE 2. Inguinal orquiectomy specimen.

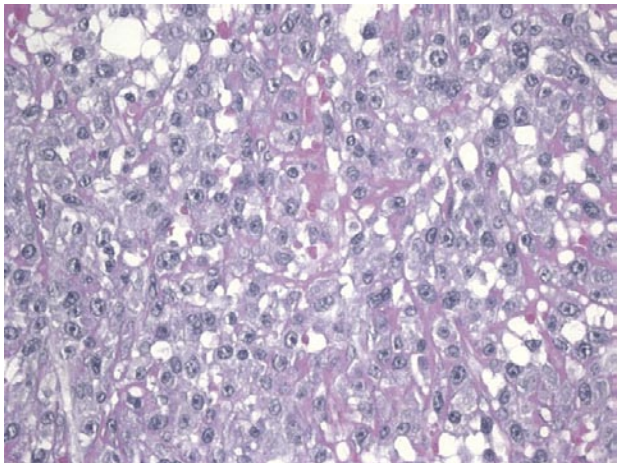

FIGURE 3. Inmunohistochemical studies showed positivity for CD 138, and strong exclusived positive intracitoplasmatic staining for light chains (κ).

12 months (18). Some patients have lived years after orchiectomy, without evidence of systemic plasma cell disease (18).

Standard treatment for testicular plasmacytoma is radical orchiectomy. Chemoterapy and radiation have not been successful (12).

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