CASE REPORT

Plasmacytoma of the testis in a patient with previous multiple myeloma. A rare case report and review of the literature

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Abstract

Multiple myeloma is a plasma cell tumor that homes to and expands in the bone marrow and that, despite the new available drugs, remains incurable. We report the case of a 69-year-old male with multiple relapsed multiple myeloma(MM), who was found to have a testicular plasmacytoma. He presented with a gradually enlarging scrotal mass. Following orchidectomy, pathologic examination of the specimen demonstrated a plasmacytoma.

Key words
testis; plasmacytoma; multiple myeloma

Introduction

A plasmacytoma is a discrete, solitary mass of neoplastic monoclonal plasma cells in either bone or soft tissue. Extramedullary plasmacytoma (EMP) is a non-frequent manifestation during the natural history of multiple myeloma and is frequently associated with plasma cell bone marrow infiltration. The most common locations for an EMP include the gastrointestinal tract, pleura, skin, peritoneum, liver, endocrine glands, and lymph nodes. Testicular plasmacytoma is very rare, only a few cases have been reported and is associated with poor prognosis [1]. Regardless of the association with underlying MM, plasmacytoma of the testis is very uncommon [2,3]. Seventy-one cases of testicular plasmacytoma have been published up to 2008 [4]. The majority of these present as extramedullary manifestations of MM (eMM). When dealing with testicular plasmacytoma, the distinction between primary testicular EP and eMM is important given the differences in prognosis and treatment pathways [5].

Case report

A 69-year-old male presented with a gradually increasing mass in his left hemiscrotum. He had a history of multiple relapsed MM manifestating as multiple plasmacytomas with minimal marrow infiltration, initially treated with bone marrow transplantation.

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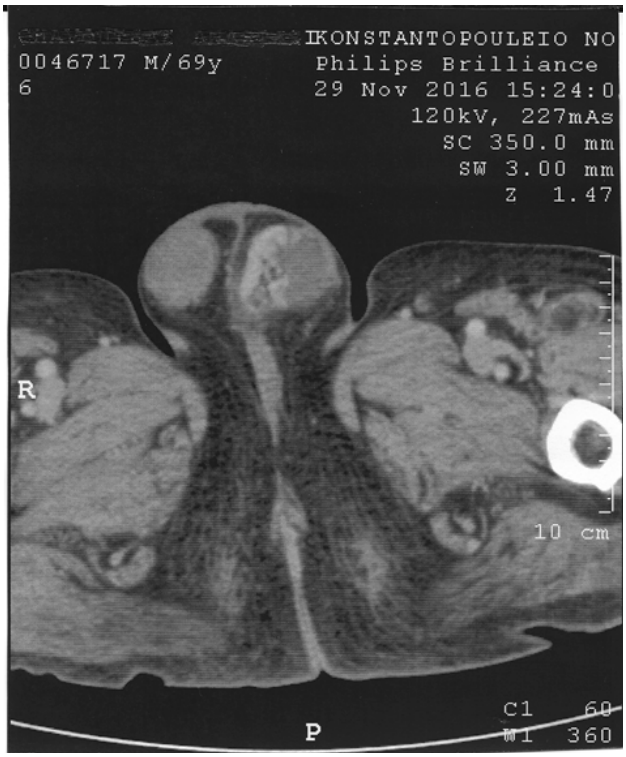

Figure 1: *Computed tomography image demonstrates an avid region in the left testicle*

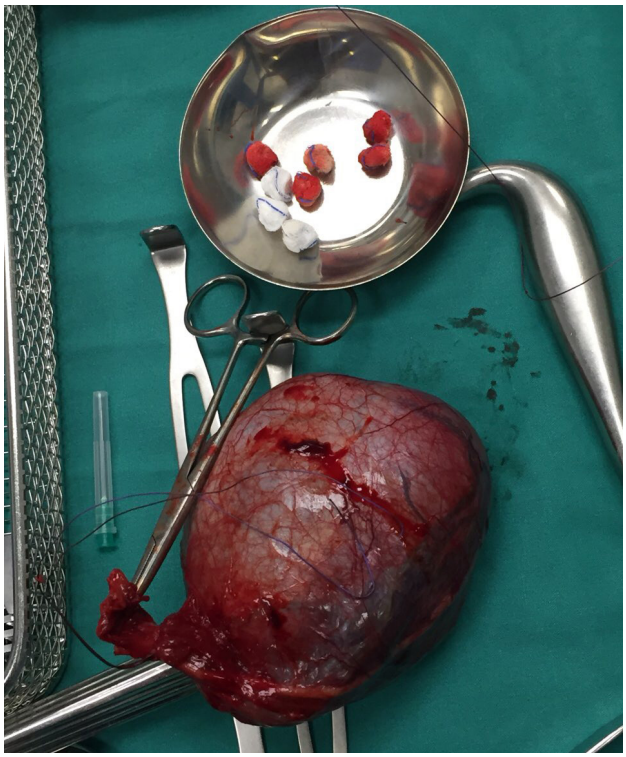

Figure 2: *Macroscopic specimen showing a grossly enlarged testicle*

Otherwise, his medical history was unremarkable and did not have any environmental or developmental risk factors. On admission, the vital signs were within normal range. Physical examination confirmed a mass in the left testis. Peripheral lymph nodes were not palpable. On abdominal palpation , liver, spleen or kidney were not palpable. Laboratory findings were as follows: Complete blood counts were haemoglobin 16,3 mg/dl, haematocrit 48,6%, leucocyte 13,89/mm^3 and platelet 226.000/mm^3. Blood chemistry tests showed LDH 194 IU/l, AFP 5,90ng/ml, β-HCG 3 mlU/ml, total protein 7,8g/dl, albumin 3,9 g/dl and creatinine 1,6 mg /dl. The patient was initially treated with radical inguinal orchidectomy.

Discussion

Testicular plasmacytomas have been identified in multiple settings, mostly involving patients with concurrent multiple myeloma. Testicular EMPs have also been reported as a site of recurrence during multiple myeloma remission [6]. This is thought to be secondary to the blood-testes barrier creating a haven for tumour formation in the testicle. In rare cases, plasmacytoma of the testes can occur in the absence of documented hematologic malignancy [7,8,9]. Unfortunately, most of these patients will develop multiple myeloma, with only a few long-term progression-free survivors post-orchiectomy [10].

As with primary testicular masses, radical inguinal orchiectomy is the preferred surgical treatment. These tumours are markedly radiosensitive and therefore may respond well to adjuvant and/or salvage radiation therapy [11]. Despite advancements in treatment options, the prognosis for affected patients continues to be poor.

Conclusion

We present a case of testicular EMP presenting with multiple myeloma. EMPs are most frequently associated with the head and neck region, but in rare cases testicular involvement has been seen. These mimic other causes of testicular swelling and therefore require a full diagnostic workup and management similar to that of any scrotal pathology. Radical inguinal orchidectomy is the treatment of choice, but radiation therapy can be used as an adjunct or salvage. The prognosis with these lesions is poor and in cases of primary testicular plasmacytoma, progression to multiple myeloma is likely.

Conflicts of interest

The author declared no conflict of interest.

Περίληψη

Το πολλαπλό μυέλωμα είναι ένας όγκος κυττάρων του πλάσματος που αναπτυσσεται και επεκτείνεται στο μυελό των οστών και, παρά τα νέα διαθέσιμα φάρμακα, παραμένει πολυπλοκη. Αναφέρουμε την περίπτωση ενός άντρα ηλικίας 69 ετών με πολλαπλό υποτροπιάζον πολλαπλό μυέλωμα (ΜΜ), ο οποίος βρέθηκε να έχει πλασματοκύτωμα όρχεων. Παρουσιάστηκε με μια σταδιακά διευρυνόμενη σαρκώδη μάζα. Μετά την ορχεκτομή, η παθολογική εξέταση του δείγματος έδειξε πλασματοκύτωμα.

Λέξεις ευρετηριασμού

όρχις, πλασματοκυτωμα, πολλαπλο μυελωμα

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