

RECIDIVAL PREVERTEBRAL METASTASIS IN A PATIENT WITH TESTICULAR SEMINOMA – CASE REPORT

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Abstract: Testicular cancer is the most frequent solid tumour in men between 15 and 35 years of age. Spinal cord compression is a very rare manifestation of pure seminoma, either at the time of the diagnosis or relapse. It is defined as the compression of the dural sac and its contents by direct pressure and/or induction of vertebral collapse or instability by metastatic spread or direct extension of malignancy that threatens or causes neurological disability. It is an oncological emergency which can have a substantial negative effect on quality of life – causing pain, paralysis, sensory losses and sphincter disturbances.

INTRODUCTION

Testicular cancers, although represents only 1% of all malignancies in men, are the most common neoplasms in boys and young adults in the age group of 15 to 34 years. In testicular carcinoma, the incidence of neck metastases range from 4.5 to 15% and in an estimated 5% of these cases, a neck mass is the initial presentation.(1)

Testicular seminomas are among the most treatable cancers in the oncologic literature, with cure rates in excess of 90%.(1)

CASE REPORT

We present a case of a 36-year old male diagnosed with left testicular seminoma in November 2015, with left inguinal radical orchiectomy. Histopathological examination confirmed the presence of a spermatocytis seminoma, moderately differentiated, with areas of necrosis, which infiltrates the testicular capsule, the epididym and spermatic funnel, with no obvious signs of vascular invasion (pT2NxMx). Postoperatively, the patient underwent 4 cycles of polychimiotherapeutic cure (bleomycin-etoposide-cisplatin - BEP), but in suboptimal doses due to the occurrence of side effects (palpitation, dyspnea, anxiety, arterial hipertension).

Abdominal CT showed a retroperitoneal para-aortic adenopathic block, with grade 2 ureterohydronephrosis which required the fitting of a ureteral stent and radiotherapy 36 Gy/18 fractions/26 days at the level of lombo-aortic lymphadenopathy.

A PET-CT scan was performed in September 2016 which highlighted an increasing in size of the adenopathic block, which imposed the change of PCT cure with (vinblastine, ifosfamide, and cisplatin - VIP). Subsequently, the patient refused chemotherapy.

In March 2017, he was admitted to the emergency department for acute-onset of bilateral upper limb weakness and numbness. An urgent MRI of cervical spine confirmed a soft tissue prevertebral C3 and C6 mass with extra dural invasion and C3-C4 spinal canal stenosis. The patient was treated with steroids and 8 Gy radiotherapy at the compression sites. He was transferred to the Neurosurgery service Cluj-Napoca where

underwent an emergent C3 laminectomy, ablation of C3 tumour, C6 left hemy-laminectomy with ablation of the tumour at that level.

Postoperatively, the patient underwent rehabilitation but two months later, he returned to the emergency service for atrocious pain in the upper limbs without aggravation of the motor deficit. Initially, under corticotherapy, the algic manifestation decreased in intensity, but suddenly, he became tetraplegic.

The MRI demonstrated recidival mass tumour with compressive myelopathy at that level.

Because of chronic immobilization, corticotherapy, and prothrombotic status induced by cancer, the patient became dyspneic, with PaO₂ = 85%, tachycardic with high level of D-dimers. The thoracic angio-CT showed bilateral pulmonary embolism, which required transfer to the Cardiology service and initiation of anticoagulant therapy, with favourable response to therapy.

Figure no. 1. Preoperative sagittal.T1 – postcontrast



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CLINICAL ASPECTS

The patient was discharged cardiologically improved, but due to multiple co-morbidities, impossibility of decompressive surgery and radiotherapy, he has remained tetraplegic.

Figure no. 2. Postoperatively T1 postcontrast recidive mass



DISCUSSIONS

Testicular seminomas have a favourable outcome even in the presence of metastasis. Only 15–20% of patients treated with surgery alone with no adjuvant therapy experience relapses, which usually occur in the para-aortic lymph nodes and the lungs.(2)

Spinal cord compression (SCC) is a devastating manifestation of metastatic cancer. The majority of malignant SCC in adults is secondary to cancers of the prostate, lung and breast, and it is estimated that between 5% and 14% of all adult cancer patients will develop a metastatic spinal cord compression.(3)

MRI of the entire length of spine is the Gold Standard of diagnosis in malignant spinal cord compression with 93% sensitivity, 97% specificity and 95% overall accuracy. A complete MRI study with T1 and T2-weighted sagittal images and T1 and T2-weighted axial images is necessary for diagnosis. MRI provides superior resolution of soft tissue structures of the spine including cord and elucidates the bone-to-soft-tissue interface, providing accurate anatomical detail of tumour invasion and compression of bone, neural, and paraspinal structures.(4)

The management of spinal metastases continues to pose a controversial challenge.

The treatment is often palliative and includes glucocorticoids in high-doses, surgical decompression, and radiotherapy. Recent randomized trials of spinal cord compression from solid tumours demonstrated a superior outcome with surgical resection followed by radiotherapy versus radiotherapy only.(5,6)

Optimal management of patients with spinal metastases involves multidisciplinary collaboration among specialists in neurology, oncology, radiation therapy, neurosurgery and orthopedics.(7)

Surgery should be performed within 24 hours, associated with high probability of improvement in ambulation, motor function and bladder/bowel function. Anterior approach is preferable, 85% of metastases causing spinal instability or neurologic deficits.(7,8,9)

CONCLUSIONS

- In our case, due to discontinuation of chemotherapeutic cure, the patient illness has evolved rapidly, with occurrence of multiple spinal metastases complicated with spinal cord compression and tetraplegia.
- The spinal cord compression due to tumor masses have been difficult to surgically and radioterapeutically treated due to multiple patient co-morbidities.
- Cancer-induced prothrombotic status, prolonged immobilization, and chronic treatment with high doses of corticosteroids have lead to pulmonary embolism.
- Early detection and aggressive treatment of metastatic compressive myelopathy are essential for a good neurologic outcome. Treatment objectives are preservation and improvement of neurologic function, pain relief, and maintenance of spinal stability.

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