Never Underestimate the Metastatic Potential of a Rarely Metastasizing Tumor. Thoracic and Epidural Metastasis of a Seminoma

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Abstract

Objective: Seminomas are germ cell tumors which metastasize rarely in regions outside the lymphatic drainage pathways of the testicles. We report the case of a middle aged male patient who underwent orchiectomy and radiation therapy because of a seminoma. Seventeen months after surgery the patient complained of thoracic back pain and conservative treatment was applied. An MRI of the thoracic spine identified a tumor on Thoracic vertebra Th2 with epidural growth. The patient underwent surgery and the tumor was histologically a seminoma metastasis.

Conclusion: This case report shows that the medical history of a tumor should always alert the doctor (also in case of non-specific symptoms) to the possibility of a metastasis, no matter how low the metastasis potential is considered to be and should never be underestimated.

Introduction

Pure seminoma represents about 50% of all testicular germ cell tumours and usually metastasizes by means of lymphatic drainage [1]. Seminoma seems too accompanied by systemic spread only rarely, usually resulting in gastrointestinal tract metastasis [1]. In the present case, we report on a solitary thoracic bone metastasis in a seminoma patient treated with orchiectomy followed by irradiation.

Case Report

A 62-year-old seminoma patient with the history of an orchiectomy and post-operative irradiation therapy including the para-aortic and ipsilateral pelvic lymph nodes 17 months before was admitted to hospital complaining about upper thoracic back pain for 16 weeks. Neurologic deficits were absent. Magnetic resonance imaging (MRI) of the spine revealed a tumor in the thoracic vertebra Th2 with epidural growth and spinal cord compression (Figure 1A), while the complementary CT displayed erosion of the bone Th2 at this level (Figure 1B).

A scintigraphy could not detect other lesions. Surgery with decompression of the spine (laminectomy) and partial tumor removal was performed. The histological findings confirmed our suspicion of a seminoma metastasis (Figures 1C-1G). Post-operatively, the patient was free of back pain and did not show any neurological findings. Radiation of the site of metastasis has been planned.

Discussion

Following orchiectomy because of seminoma surveillance alone has recurrence rates of 15-20% [2,3]. Nearly 3 to 5% of patients treated with orchiectomy and radiation therapy, including that of the para-aortic and ipsilateral pelvic lymph nodes, show relapses during the first 18 months after surgical intervention [2,4]. Seminomas are germ cell tumors with a very low potential of distant metastasis. There are some reports on metastasis of seminomas to the gastrointestinal tract, discussing the retroperitoneal lymphatic drainage of seminomas as a potential metastatic pathway to the ileum and jejunum and suggesting retroperitoneal lymph node biopsies for accurate staging [1,4]. There is one report on a solitary bone metastasis of a seminoma presenting 6 years after radical treatment [5]. Another report describes a seminoma in a dog with an unusual systemic pattern of metastasis including skin, pericardium, trachea and tongue [6].
Conclusion

The aim of the present case report is to emphasize that even tumors with a very low potential of systemic metastasis are able to metastasize in different locations. Patients with tumors like seminomas can present with unspecific symptoms like back ache years after tumor treatment. Failing to consider a metastasis as a possible cause for clinical complaints can postpone adequate treatment of the patient and even lead to aggravating consequences. In this case MRI performed only weeks after the onset of symptoms revealed that the tumor was indulging the spinal cord already. If MRI had been postponed because of trials of conservative treatment (physiotherapy, analgesia) the decompressive treatment of the spinal cord could have been too late for the patient, thereby leading to paraplegia. This case report shows that the medical history of a tumor should always alert the doctor (also in case of non-specific symptoms) about the possibility of a metastasis, no matter how low the metastasis potential is considered to be and should never be underestimated.

References