

Metastatic Testicular Germ Cell Tumour Masquerading as Hydrocele: A Case Report

Mustafa Ozan Horsanali^{*}, Enis Mert Yorulmaz, Kutun Ozer, Sacit Nuri Gorgela and Nureddin Celik

Department of Urology, Izmir Katip Celebi University Ataturk Training and Research Hospital, Turkey

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ABSTRACT

Purpose: We present a patient who applied with muscle weakness due to metastasis and testicular cancer masquerading as hydrocele.

Case: The 24 years old male patient applied to the emergency service with unexpected findings of metastasis. On his evaluation testicular mass in hydrocele sac was determined. After surgery, mixed germ cell tumour was diagnosed.

Discussion: Testicular tumours are rare cases in urological cancers and often primarily observed in young patients. As seen in this patient, it could be a testicular tumour that presenting with unexpected metastatic findings which primaries cannot be determined should be kept in mind.

Introduction

Testicular cancers are rare tumours. It is constituted 1-2% of all malign tumours and 13-23% of urogenital system tumours in male [1]. Usually, it presents with unilateral, solid and painless mass [2]. It is most commonly observed cancer type at the age of between 15 and 35 years old. The incidence has been increased approximately 50% in the last 20 years. In England, as of 2005, each year approximately 1,400 new case of testicular cancer was reported, while 8000 new cases of testicular cancer have been reported per year in the United States [3,4]. The incidence of testicular cancer is 1,3% in Turkey [5]. In this case, we aimed to present a patient who applied with muscle weakness due to metastasis of testicular cancer masquerading as hydrocele.

Case Report

The 24 years old male patient applied to the emergency service with complaint of muscle weakness in his leg, incapability of walk and impairment of his speech for a month. In his history, it was learned that he had a testicular swelling that he ignored for a year and increasing muscle weakness and incapability of walking and speech disorder that occurs occasionally in the last month.

Evaluation of patient in the emergency service, his general condition was good. He was cooperated, oriented and conscious. On physical examination bilateral scrotal oedema was observed and there was a scrotal swelling due to hydrocele. Transillumination sign could not be observed. There was a muscle weakness on the right lower extremity and muscle power was 2/5. According

Correspondence:

Mustafa Ozan Horsanali,

Department of Urology, Izmir

Katip Celebi University Ataturk

Training and Research Hospital,

Turkey,

Email:

drozanhorsanali@yahoo.com

to this findings, scrotal colour doppler was planned. On the scrotal colour doppler examination, intra-testicular mass was observed in the right testes that include solid, heterogen and cystic components. And also, it had low resistance, arterial flows in the colour doppler ultrasonography. There was excess fluid in the right hemiscro-tum. However, concomitant conglomerate lymphadenopathies were observed in the retroperitoneal field on abdominal ultrasonography. In laboratory tests, AFP: 9572 ng/mL, LDH: 956 U/L, B-HCG: 1429 mU/mL were measured. According to the hospital patient record system, it was noticed that patient was applied to the hospital with the complaint of cough and multiple metastatic lymph adenopathies that measured approximately 2x2,5 cm, localized subcarinal and mediastinal was detected on thorax computerised tomography 1 month ago, before patient applied to the emergency service. On computerized thorax tomography, both lungs, especially peripheral parenchyma localised, numerically more, widely scattered, the eldest of 12 mm diameter, different sized multiple nodules were revealed. These nodules were considered as metastasis. Millimetre osteolytic areas on corpus of third dorsal vertebra, soft tissue infiltration to be more pronounced on the right side in the para-vertebral area was observed. Primarily, these findings were considered as metastasis, too (Figure 1).

According to all physical, radiological and laboratory examination, testicular cancer was diagnosed and right high ligated inguinal orchiectomy was performed. On the pathological examination, mixed germ cell tumour was diagnosed. Components of the tumour was 60% embryonal carcinoma, 20% yolk-sactumour and 20% teratoma. After the surgery, patient was consulted with neurology department in order to investigate the etiology of the speech and walking disorder. Brain and thoraco-lumbal MRI were administrated to the patient according to the recommendations of a consultant. On the MR imaging, after injection of intravenous contrast material, lesions that holds the contrast were observed and compatible with metastasis in the Th2 and Th3 vertebra corpus. And also, metastatic lesions were observed in the corpus of Th4 vertebra. At the level of Th2, Th3, Th4 and Th5 vertebra, mass lesion was observed and compatible with metastasis that surrounding spinal cord and holds diffuse contrast material. Soft tissue mass lesion was lead invasion in Th2, Th3 and Th4 vertebra corpus. This metastatic mass was extended into anterior and lateral par vertebral space and make pressure to the spinal cord. At this level, signal records was compatible with oedema in the spinal cord had attract attention [figure 2]. No signs of metastasis was revealed in the patient's brain MRI.

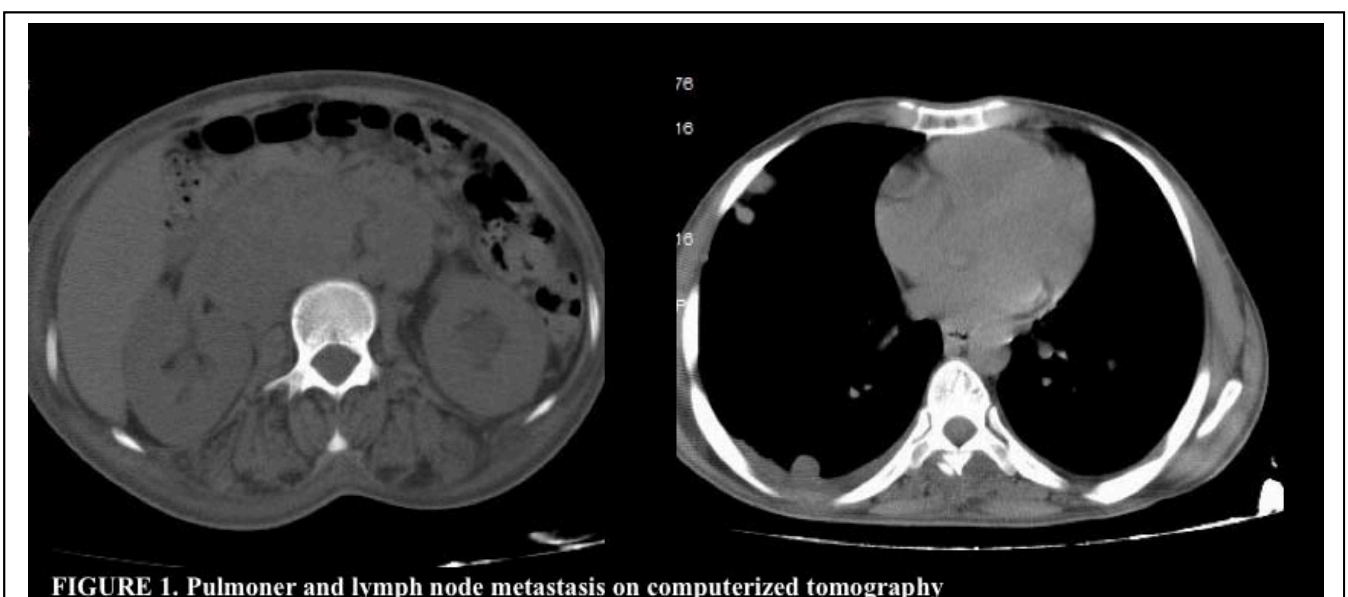


Figure 1. Pulmoner and lymph node metastasis on computerised tomography

On the post-operative third days with these findings, the patient was transferred to Neurosurgery clinic. Chemotherapy was planned but patient died on post-operative 43rd days.

FIGURE 2. Thoracal spinal metastasis on MRI



Figure 2. Thoracal spinal metastasis on MRI.

Discussion

Hydrocele is the most common cause of scrotal swelling among young men [6]. Testis tumours can be accompanied by hydrocele. Enlargement of the scrotal sac is produced in such cases [7]. About 95% of testicular cancers originate from germ cells. Testicular germ cell cancer is the most common malignant tumour among men ages 15 to 44 years [8]. In this report, we present patient with the complaint of paraplegia and dysfunctional speech due to metastatic testicular tumour masquerading as hydrocele that revealed by radiological evaluation.

Huang and associates reported that 7 cases of stage-I yolk sac tumour of the testis with concomitant testicular hydrocele and patients' age were ranged from 6 to 14 (mean 11) months. According to result of their study, they suggested that yolk sac tumour of the testis with concomitant testicular hydrocele is easily misdiagnosed in children. Ultrasonography is necessitated as routine

examination in its diagnosis [9]. Although our case was germ cell carcinoma masquerading as hydrocele, he was misdiagnosed and admitted to the emergency service with spinal metastasis which leads to paraplegia. In the literature, many case reports of testicular cancer are accompanied by hydrocele have been reported. Some kind of testicular cancer such as yolk sac tumour, spermatocytic seminoma, granulosa cell tumour, primary testicular osteosarcoma have been reported that accompanied hydrocele [9-12]. Our case was diagnosed as germ cell carcinoma. For the testicular germ cell tumours, improved survival stems predominantly from increased staging accuracy, adequate early treatment based on a multidisciplinary approach, the use of platinum-based regimens, careful follow-up and salvage therapies. In the oncologic center of excellence, cure rates as high as 90% at 10 years were achieved [13]. Our case was died on 43rd days after surgery, because he admitted late and had metastatic disease. He could not receive chemotherapy.

Conclusion

Testicular tumours are rare cases in urological cancers and often primarily observed among young patients. Patients most commonly presents with a solid, painless mass, but sometimes, as seen in this patient, may present with unexpected findings. As seen in this patient, it could be a testicular tumour that presenting with unexpected metastatic findings which primaries cannot be determined should be kept in mind. And also, patients with hydrocele and at risk group for testicular cancer should be follow-up carefully.

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