

Testicular Mesothelioma: A Rare Case Report

Saeed Abdullah Ahmed Noman^{1*} and Salah Abdullah Faraa²

¹*Clinical Oncology and Nuclear Medicine Specialist, National Oncology Center-Aden, Yemen*

²*Medical Oncology Specialist, National Oncology Center-Aden, Yemen*

***Corresponding Author:** Saeed Abdullah Ahmed Noman, Clinical Oncology and Nuclear Medicine Specialist, Director of Radiotherapy Management, National Oncology Center-Aden, Yemen.

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Abstract

Malignant mesothelioma of the tunica vaginalis testis (MMTVT) is a rare disease with a poor prognosis. The correct preoperative diagnosis is extremely difficult. Testicular mesotheliomas usually occur between 55 and 75 years. Exposure to asbestos, trauma, herniorrhaphy and long-standing hydrocele have all been implicated as predisposing factors. In this article we are reporting a rare case of Testicular Mesothelioma in an 82 years old male who underwent to Orchiectomy plus adjuvant Radiotherapy.

Keywords: Testicular Mesothelioma; Tunica Vaginalis; Radiotherapy; Orchiectomy

Introduction

Any tissue with a mesothelial membrane can develop a mesothelial tumour [1]. Malignant mesotheliomas are rare tumours that arise from the coelomic epithelium of the pleura, peritoneum, pericardium, and testis tunica vaginalis [2]. No cases of pericardial or TVT mesothelioma have been recorded in large occupational cohorts with significant asbestos exposure [3]. Testicular mesotheliomas usually develop between the ages of 55 and 75 [4]. Because of its rare and sometimes ambiguous gross appearance, diagnosing mesothelioma of the tunica vaginalis testis can be difficult [5].

Case Report

Patient is 82 years old retired male, He presented with history of left inguinal swelling since several years with left testis mass since several months. USG of whole abdomen on 9/2/2020 revealed evidence of grossly dilatation of left inguinal canal containing heterogeneous tissues extended into left scrotal sac pressing the left testis down, pushing the right testis (provisional diagnosis was indirect irreducible hernia), History of asbestos exposure is unremarkable. He entered to operation theater as emergency case on 12/2/2020 then he underwent to Left Orchiectomy. The histopathological examination for testis and cord was revealed large testicular mass 12 x 8 cm of Testicular Mesothelioma (spindle cell variants). Post operative reevaluated the patient to rule out any local residual or distal metastasis. He did Doppler Ultrasonography for testis which was revealed moderate enlarged prostate (BPH), Left testis is not seen, Right testis is normal, no focal lesion. The investigations results were AFP 1.98, CEA 2, LDH 172. Then we referred him for Radiotherapy. Unfortunately, we lost our case later on.

Discussion

Malignant mesothelioma of the tunica vaginalis testis is an extremely rare tumor representing 0.3% to 5% of all malignant mesotheliomas [5].

The rarity of testicular mesothelioma poses challenges to its diagnosis and that is rarely achieved preoperatively. Main symptoms are nonspecific and patients usually present with enlargement of the scrotum, recurrent hydrocele and palpable scrotal mass [6]. Ultrasonog-

raphy (US) is non-invasive, simple and 90% accurate method when used to detect testicular tumours [7]. The diagnosis and management of these lesions are often difficult for pathologists, surgeons and oncologists [8].

The pathogenesis of this malignant neoplasm is unclear and is mostly associated with asbestos exposure [1], as well as long-lasting hydrocele. The rarity of testicular mesothelioma poses great challenges in diagnosis [9]. The overall recurrence rate (local and disseminated) was 52.5%. More than 60% of recurrences developed within the first 2 years of the follow-up [11]. Testicular mesothelioma, a testis-specific tumour, is an aggressive form of cancer [10]. The mortality rate from testicular mesothelioma has been reported to be 53% over a mean follow-up time of two years [11].

The prognosis in testicular mesothelioma is generally grave, with median survival of 23 months and a range of 2 to 64 months [12]. In some cases of disseminated mesothelioma, adjuvant chemotherapy or radiotherapy was given [13].

Conclusion

Because of its rare and sometimes ambiguous gross appearance, diagnosing mesothelioma of the tunica vaginalis testis can be difficult.

It should be evaluated in the differential diagnosis of testicular masses, especially if the patient has been exposed to asbestos, as it is often lethal.

Although malignant mesothelioma of the tunica vaginalis is an uncommon cancer, it can mimic common inguinal or scrotal illnesses like hydrocele, making diagnosis difficult.

Our case was diagnosed in the operating room, and we performed a metastatic workup on him to rule out any local residual or distal metastasis before sending him for radiotherapy. Unfortunately, we were unable to follow up with him because he died.

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