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CASE REPORT

Spermatocytic Seminoma: A Case Report

Yddoussalah O, Touzani A, Karmouni T, Elkhader K, Koutani A, Ibn Attya Andaloussi A

Department of Urology B, Ibn Sina University hospital, Faculty of Medicine and Pharmacy, Mohamed V University, Rabat, Morocco.

Abstract

Spermatocytic seminoma (SS) is a rare tumor, representing less than 2% of testicular cancers, unlike these tumors, it is never associated with intratubular germ neoplasia or other types of germ cell tumors. Occurring frequently in the elderly men. Spermatocytic seminoma must be recognized because its evolution is very favorable and requires only a simple orchidectomy or surveillance, in the absence of an exceptional sarcomatous contingent or metastasis where chemotherapy is required. We report a new observation of a 42-year-old patient. and we analyze Through a review of the literature, the epidemiological, diagnostic and therapeutic aspects of this pathology. In order to allow a better understanding and treatment of this Type of pathology.

Keywords: Orchidectomy, Radiation therapy, Spermatocytic seminoma, Surveillance.

Introduction

Spermatocytic seminoma is an uncommon neoplasm first described by Masson in 1946 and rarely occurs before the fifth decade. It represents 1 to 2% of germ cell tumours and 4 to 7% of all seminoma patients [1-2]. Unlike classical seminoma (CS) originated from undifferentiated germ cells, (SS) may derive from spermatogonia and represented a more differentiated type of germ cell neoplasm.

It is a solid tumour found solely in the testis with long duration of symptoms, presentation evident at an early stage, absence of metastasis, and bears an excellent prognosis [3].

Observation

A 42-year-old man presented complaining of gradually increasing left testicular painless swelling for one year. A comprehensive physical examination revealed left testis enlargement and displayed firm consistencies to palpation.

Scrotal ultrasonography revealed a well-defined 65 × 30 × 25 mm left testicular solid tumour with heterogeneous echogenicity associated with a small hydrocele (Figure 1).

The tumour markers alpha-fetoprotein, human chorionic gonadotropin, and serum lactate dehydrogenase was within normal limits.

The patient underwent outside our department of a left orchiectomy via scrotal approach. On gross examination, the testicle measured 12 × 6 × 3 cm and weighed 174 g. The masse had fleshy, pale-grey cut surfaces with invasion of the tunica (Figure 2). There were some skin changes, whence the realization of further scrotal excision and complete removal of the rest of the spermatic cord. A histological examination

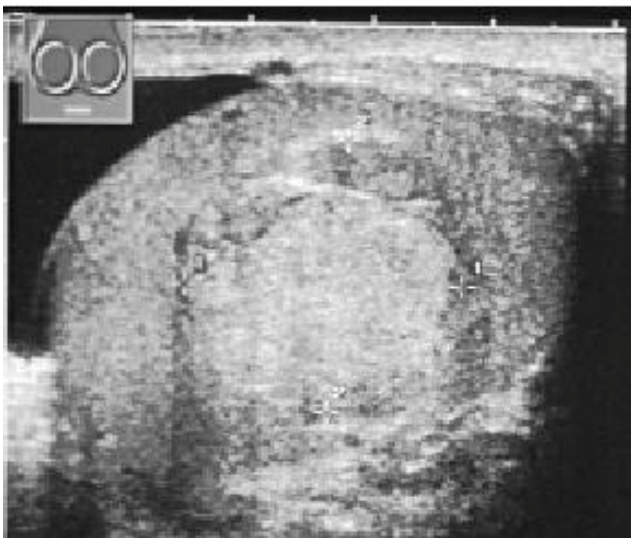

Figure 1: Intra testicular solid tumour with hydrocele.

confirmed the (SS) (Figures 3 and 4) showing anarchic cell proliferation, making tablecloths and pseudo glandular areas located within a very small and edematous stroma.

Computed tomography of the thorax, abdomen and pelvis was negative for lymphadenopathy or other metastases.

Following the operation, the patient was followed closely without any adjuvant therapy and was in good condition with no evidence of metastasis 24 months after the operation.

Correspondence to: Yddoussalah Othmane, Department of Urology B, Ibn Sina University hospital, Faculty of Medicine and Pharmacy, Mohamed V University, Rabat, Morocco. E-mail: yddoussalah[DOT]urob[AT]gmail[DOT]com

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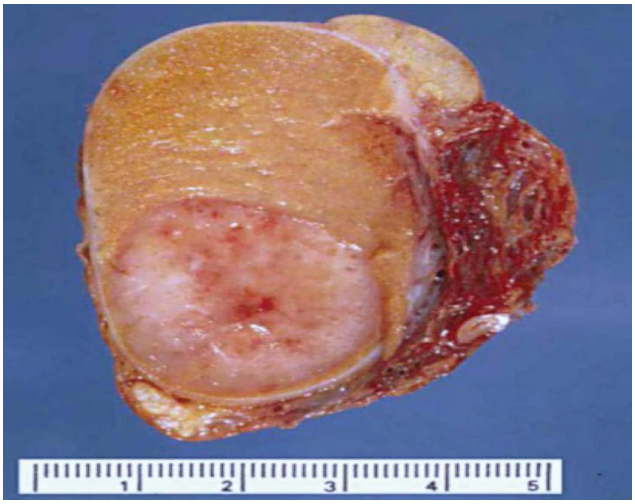

Figure 2: left orchiectomy Piece.

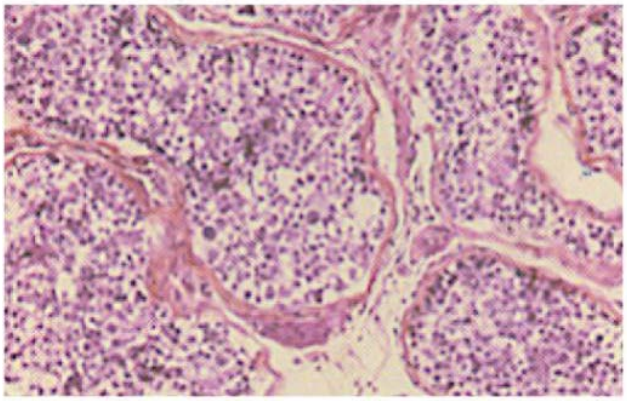

Figure 3: Polymorphic intra-tubular cell proliferation.

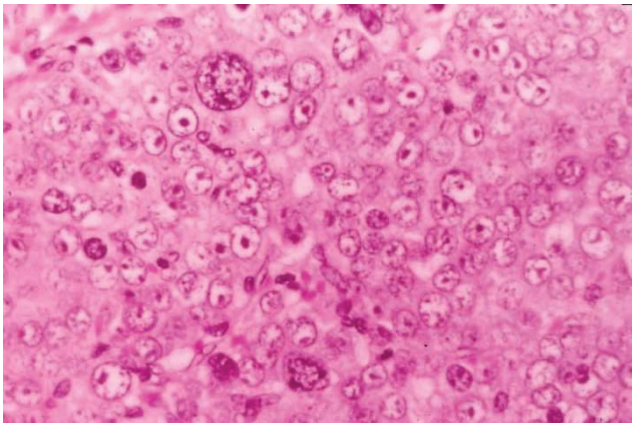

Figure 4: Germinal proliferation with variable-sized cells.

Discussion

The (SS) has been regarded as a malignancy along the lines of CS, but it exhibits different pathology and natural history, albeit the same clinical behaviour. It is an uncommon tumour and, at our institution, represents less than 1% of all (CS) patients and 4.4% of stage I. (SS) is found exclusively in the testis and is not associated with any known risk factors for germ cell tumours including cryptorchidism, subfertility, or gonadal dysgenesis [4]. These tumours originate from a post-natal germ cell [2].

Clinically, the main difference between spermatocytic and classical seminoma is the age of occurrence. (SS) tends to occur more commonly, in men aged over 50, while in (CS), the age at diagnosis is between 25 and 40 years. The duration of symptoms was on the whole longer compared with (CS), indicating a slower evolution and less malignant biological behaviour.

The size of the tumour was ranged from 10 to 16 cm with an average of 6.6 cm [5], usually replacing the whole testis.

The spermatocytic variant is distinct from (CS) in its morphological characteristics with three different cell types (small, medium, large), spherical nuclei, eosinophilic to amphophilic cytoplasm, lack of cytoplasmic glycogen, and sparse to absent lymphocytic infiltrate [6].

The presence of an anaplastic component does not seem to impact the excellent prognosis of (SS). The malignant potential of (SS) is very low. Only proven three cases of metastatic (SS) have been described [7-8]. The sarcomatous component is usually rhabdomyosarcoma or undifferentiated, high-grade sarcoma and it appears that the metastatic disease develops usually from the sarcomatous elements [9]. The sarcomatous dedifferentiation was associated in the most reported cases with aggressive behaviour and poor outcome [9,10].

The choice of therapy for an individual patient requires a consideration of the patient's ability to comply with a surveillance regimen as well as acute and delayed complications of adjuvant chemotherapy or adjuvant radiotherapy. We generally suggest active surveillance for patients able to comply with an intensive follow-up schedule, because of the decreased risk of late complications and because of the ability to achieve the same overall cure rate when patients who relapse are treated appropriately.

Primary tumour size greater than 4 cm and invasion of the rete testis have been identified as independent factors associated with an increased risk of relapse in multivariate analysis [11]. However, surveillance is not contraindicated in men with these features, provided the patient understands that the risk of relapse may exceed 30 per cent and that they must adhere rigorously to the surveillance protocol. For patients with clinical stage I seminoma for which active surveillance is not appropriate and for those who want to minimize any risk of relapse, adjuvant chemotherapy with single agent carboplatin is suggested rather than RT.

In all cases, there is no unanimity in the therapeutic procedure of (SS). However, the majority of reported patients in the literature with (SS) have received post-orchidectomy radiotherapy to the draining lymph node area. The main benefit of surveillance is that it avoids unnecessary treatment and the associated treatment related adverse effects [12-14].

Consent of patients

Written informed consent was obtained from the patient's next of kin for publication of this case report and any accompanying images.

Competing Interests

The authors declare that they have no competing interests.

Author's Contributions

O. Yddoussalah wrote the manuscript. All authors read and approved the final manuscript.

Acknowledgement

NA

Conclusion

Spermatocytic seminoma SS is a rare testicular tumour with clinical and histological characteristics. It has a very low metastatic potential and its treatment comes down to orchidectomy or surveillance. The identification of this tumour during the pathological examination is essential, thus avoiding any additional treatment. The prognosis of this type of tumour is favourable; however, surveillance, especially of the testicle adelph, is necessary.

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