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Case Report

An unusual case of spermatocytic seminoma in 80 year-old-patient: A case report

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ABSTRACT

Introduction: and importance: Testicular tumors represent 1% of human malignant tumors. Spermatocytic seminoma (SS) is a rare tumor, representing less than 2% of testicular cancers. This Tumor is an uncommon neoplasm first described by Masson in 1946 and rarely occurs before the fifth decade. Around 200 cases of Spermatocytic seminoma have been reported in the literature

Case presentation: We present a case of Spermatocytic seminoma in 80 years old men who presented with a right testis mass. Scrotal ultrasonography revealed a well-defined 62 × 32 × 27 mm right testicular solid tumor with heterogeneous echogenicity associated with a small hydrocele. A right inguinal orchiectomy was performed with primary control of the spermatic cord. Following the operation, the patient was followed closely without any adjuvant therapy and was in good condition with no evidence of metastasis 12 months after the operation.

Clinical discussion: The spermatocyte seminoma described by Masson in 1946, represents an entity anatomy-clinical which, due to its morphological and biological properties particular, deserves to be distinguished from the classic variety of testicular seminomas. It is an uncommon tumor and, represents less than 1% of all patients and 4.4% of stage I. Homolateral orchiectomy inguinal with upper spermatic cord ligature represented the standard treatment.

Conclusion: Spermatocytic seminoma is a rare tumor, found mainly in elderly men. It is original by its histological characteristics and its good prognosis.

1. Introduction

Spermatocytic seminoma is a rare tumor, initially described by Masson in 1946 and rarely occurring before the fifth decade. It represents 1–2% of germ cell tumors in adults and 4–7% of all seminomas [1,3]. This tumor has a clinical appearance and pathological different from classical seminoma (CS) characterized mainly by a slow progression, an early stage at the time of diagnosis, and the absence of metastases. Around 200 cases of Spermatocytic seminoma have been reported in the literature. We present a case of Spermatocytic seminoma in 80 years old men who presented with a right testis mass and we analyze the epidemiological, diagnostic, and therapeutic aspects of this pathology. The work has been reported in line with the SCARE 2020 criteria [4].

2. Case report

An 80-year-old patient, diabetic on insulin who presented complaining of gradually increasing right testicular painless swelling for two years. A comprehensive physical examination revealed a right testicular tumor of 62 mm of painless renitent consistency without modification of the opposite skin with a left testicle without abnormalities. Scrotal ultrasonography revealed a well-defined 62 × 32 × 27 mm right testicular solid tumor with heterogeneous echogenicity associated with a small hydrocele (Fig. 1). The tumor markers alpha-fetoprotein, human chorionic gonadotropin, and serum lactate dehydrogenase were within normal limits. A right inguinal orchiectomy was performed with primary control of the spermatic cord. On gross examination, the testicle measured 11 × 5 × 3 cm and weighed 124 g. The masse had fleshy, pale-grey cut surfaces with an invasion of the tunica (Fig. 2). A histological examination (Fig. 2) concluded in a malignant tumor proliferation

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comprising three cell types. The Immunohistochemically study (Figs. 3 and 4) showed positive binding of tumor cells for CD-117 markers and cytokine, this is consistent with a spermatocyte seminoma of stage pT2N0M0. 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 12 months after the operation.

3. Discussion

The spermatocyte seminoma described by Masson in 1946, represents an entity anatomo-clinical which, due to its morphological and biological properties particular, deserves to be distinguished from the classic variety of testicular seminomas [1]. It is an uncommon tumor and, represents less than 1% of all classical seminoma patients. This tumor was found exclusively in the testis and is not associated with any known risk factors for germ cell tumors including cryptorchidism, subfertility, or gonadal dysgenesis [3]. The size of the tumor was ranged from 10 to 16 cm with an average of 6.6 cm [4], usually replacing the whole testis. These tumors originate from a postnatal 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 classical seminoma, indicating a slower evolution and less malignant biological behavior. Ipsilateral high inguinal orchidectomy is the standard treatment. The spermatocytic variant is distinct from CS in its morphological characteristics with three different cell types (small, medium, large), spherical nuclei, eosinophilic to amphiphilic 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 this tumor is very low. Only proven rare cases of metastatic SS have been described [5]. The sarcomatous component is usually rhabdomyosarcoma or undifferentiated, high-grade sarcoma and it appears that the metastatic disease develops usually from the sarcomatous elements [8]. Postoperative radiotherapy seems even less justified than the evolution seems independent processing. However, due to the rarity of this tumor, its treatment has been equated with that of stage I seminomas. The choice of treatment for each patient should be made taking into account the patient's ability to adhere to a surveillance protocol as well as the acute and delayed complications of adjuvant therapy. We suggest active surveillance of patients able to follow a specific surveillance protocol [7]. However, surveillances are not contraindicated in men with these characteristics provided the patient understands that the risk of relapse may exceed 30% and must strictly adhere to the monitoring protocol.

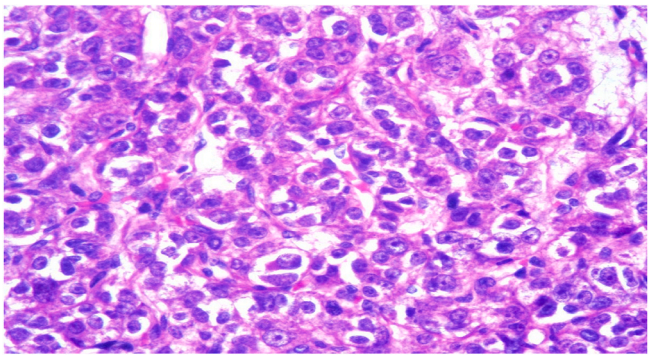

Fig. 2. Tumor cells.

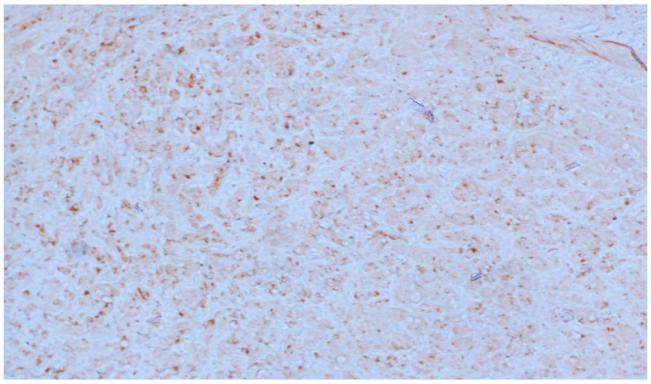

Fig. 3. Low and heterogeneous expression of cytokeratin 7 by tumor cells.

For patients with clinical stage I seminoma for whom active monitoring is not indicated adjuvant chemotherapy with carboplatin as monotherapy is suggested rather than RT [9]. In any case, there is no unanimity in the therapeutic procedure of SS. However, the majority of patients reported in the literature with SS received post-orchiectomy radiotherapy in the area of the draining lymph nodes. The main advantage of monitoring is that it avoids unnecessary treatment and the side effects associated with adjuvant therapy [10]. Our patient received inguinal orchiectomy and protocol supervision was privileged after consultation with the radiotherapists.

4. Conclusion

Spermatocytic seminoma is a rare tumor, found mainly in elderly

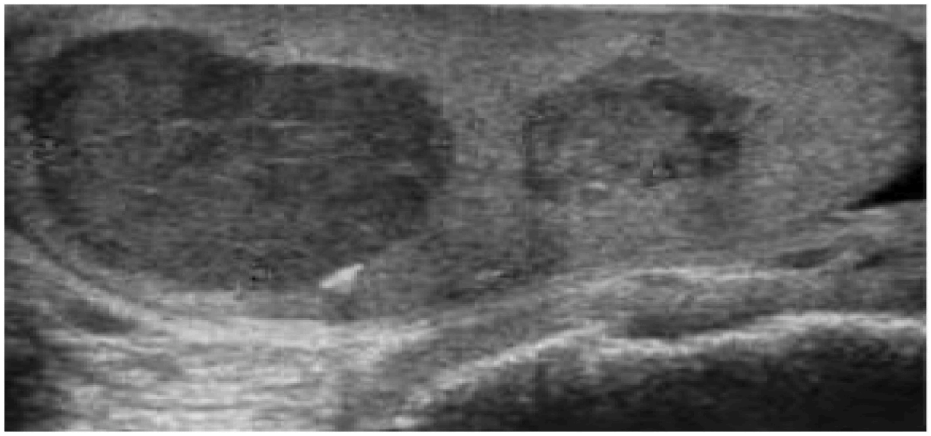

Fig. 1. Scrotal ultrasonography showed tumor.

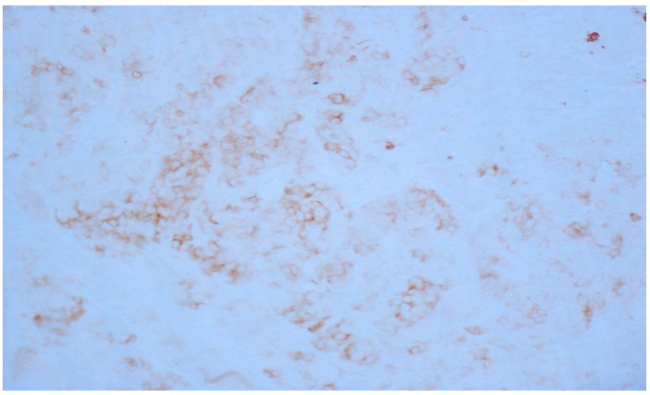

Fig. 4. Low and heterogeneous expression of CD117 by tumor cells.

men. It is original by its histological characteristics and its good prognosis. Immunohistochemistry is very useful because it essentially confirms the absence of expression of seminoma markers classical (PLAP) and lymphoid markers. The orchiectomy with high ligature of the spermatic cord should be sufficient therapy (apart from the very rare case of association with rhabdomyosarcoma where chemotherapy becomes useful).

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Ethical approval

Not applicable.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Rahoui Moez: Data collection, Manuscript writing, Results discussion. Boulma Rami: Manuscript writing and revision. Hassen Khouni: Paper revision.

Registration of research studies

1. Name of the registry: N/a
2. Unique identifying number or registration ID: N/a
3. Hyperlink to your specific registration (must be publicly accessible and will be checked): N/a

Guarantor

Rahoui Moez is the guarantor of the study and accept full responsibility for the work and/or the conduct of the study, had access to the data and controlled the decision to publish.

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