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Spermatocytic Seminoma

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ABSTRACT

Spermatocytic seminoma is a rare malignant tumor of the testis that is characterized by an extremely low metastatic potential. This tumor is distinguished from other testicular germ cell tumors including classical seminoma by histological and immunohistochemical features clean. Previously, it was treated in the same way as conventional seminomas by prophylactic irradiation of para-aortic lymph nodes and iliac after orchiectomy. The currently accepted approach is surveillance. The rarity of this tumor makes diagnosis difficult, but its identification is very important to avoid any further treatment to patients after the initial surgery. We report a case of spermatocytic seminoma in a 42 year old patient and discuss the clinical, diagnostic and therapeutic features of this condition.

Introduction

Spermatocytic seminoma (SS) is a rare malignant tumor of the testis that is characterized by an extremely low metastatic potential. It differs from other testicular germ cell tumors including classical seminomas by histological and immune histo chemical characteristics specific [1, 2,3, 4]. This tumor was treated in the same way as conventional seminomas, by prophylactic radiotherapy after orchiectomy [1, 2].

Observation

We report the case of a 42 years patient operated there 11 years ago for right inguinal hernia which presents a gradual increase in the volume of the right testicle during the clinical examination, a large purse right ,lasts insensitive,the left testicle was normal. The rest of the examination was unremarkable, there was no palpable abdominal masses, no gynecomastia and no sentinel node. He ultrasound showed a tumor tissue allure. Plasma rates of tumor markers were normal (.(ßHCG, Alfafoetoprotéine, LDH). Immuno histochemical study showed a negative marking for alkaline phosphatase anti-leukocyte antibodies placental (PLAP), anti-vimentin and anti-Alfafoetoprotéine. This proliferation corresponded to a SS Stage 1 (pT1 UICC TNM Classification 2004). The patient underwent orchiectomy with high histological .The study found a way spermatocytic seminoma.

Discussion

The SS is a rare tumor of the testis representing 2-12% of seminoma tumors [6]. The usual age of diagnosis of SS is more than 50 years knowing that it is between 30 and 40 years for classical seminomas. However, several authors have reported the occurrence of SS in younger subjects (up to age 30) [1, 2]. It comparing to the classic seminoma, the consultation period is generally longer (often exceeding six months), indicating a slow evolution and an attenuated malignancy [2]. Undescended testicles do not constitute a predisposing condition for this type of tumor [1, 2, only one case of testicular SS], has been reported undescended [6]

The sidedness is more frequent in comparison with conventional seminomas (10% against only 2 to 4%) [2, 7]. This is typically metachronous bilateral disease. The histogenetic origin of this tumor is different from that of other germ cell tumors (conventional seminomas and non-seminomatous germ cell tumors). It is currently accepted that testicular germ cell tumors come from the proliferation of germ cells at their early stage of development, stage of embryonic or primitive germ cells. The proliferation of these cells leads to the formation intratubular neoplasia (NIT), precursors of germ cell tumors. The SS comes from the proliferation of germ cells at a later stage of development, stage of pre meiotic cells (spermatogonia or spermatocytes spermatogenesis of the seminiferous tubule) rather from primitive undifferentiated germ cells [2, 3, 8.9] . This is therefore a more differentiated tumor. It is likely that the tumor process going again, by damage to spermatocytic seminoma Intratubular [8, 9, 10].

The SS has long been considered part of seminomas but its natural history and behavior make it to be considered a separate entity and is distinguished seminomas in the classification of testicular tumors. [2] Unlike the classic seminoma, SS occurs only in the testis and has no ovarian or other equivalent (no mediastinal locations, retroperitoneal or pelvic). It associates with the NIT nor with other germ cell tumors [1, 2, 4]. It may be associated on the contrary against sarcomatous component [1, 4, 10]. Serum tumor markers are consistently negative.

Histologically, the SS presents itself macroscopically as a well-demarcated tumor, or encapsulated, intratesticular, usually multinodular, able to reach a large size. With white-grayish color, its consistency is soft, with areas cystic mucoid or edematous [2, 3, 4].

Rarely observed Paratesticular extension [1, 2, 4]. A microscopic study, the tumor cells are arranged into tracks sometimes containing pseudoglandulaires or Microcystic aspects due to edema, as well as aspects of cords or small nests. The stroma contains no lymphoid infiltrate or granulomatous reaction [2, 4], reflecting the lack of response of the host organism towards this tumor. [11]

The tumor is made up of three types of cells: small size of a lymphocyte with a dense chromatin core degenerative appearance, medium round nucleus and chromatin caked or multinucleated giant united. Some medium and giant cells are filamentous chromatin resembling that of normal meiotic spermatocytes phase (figures spirème) [2, 3, 4]. At duséminome difference, the cells do not contain glycogen.

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In immunohistochemistry, the tumor is characterized by negativity many markers vimentin, actin, desmin, Alfafoetoprotéine, ßHCG, ACE, leukocyte common antigen [3, 4]. Placental alkaline phosphatase are also negative except in rare islet cells, as well as cytokeratins [1, 3, 4]. Cytokeratin 18 may be positive in perinuclear dot [4]. The detection of a diffuse or focal positivity for C-kit can provide an additional argument to the diagnosis [9, 12]. This tumor also presents clean ultrastructural features with the presence of typical intercellular bridges, absent in the other tumor types [4, 11]. All cases of SS reported in the literature were stage I (Pt1 Pt2 or UICC TNM Classification 2004). Only two cases of metastasized SS confirmed have been reported [10, 11]. In the case of SS associated with sarcomatous quota, metastases may occur and is due to the sarcomatous component [13]. The rarity of this tumor makes diagnosis difficult, but its identification is very important to avoid any further treatment to patients after the initial surgery. Previously, this tumor was treated in the same way as conventional seminoma stage I, by an irradiation of a prophylactic paraaortique and iliac lymph nodes. No secondary objective benefit to the radiation therapy has been proved [1, 2]. The management is now down to the simple clinical monitoring and imaging studies [1, 2, 5]. The treatment of classic stage I seminoma has evolved over the last twenty years, and surveillance after orchiectomy can currently be proposed [5] provided close monitoring and prolonged with repeated CT scans looking for a retroperitoneal lymph node recurrence. This is a grade B according to the European Association of Urology (EAU) Guidelines 2006 for the treatment of testicular tumors [14] .- 36- Meanwhile, factors predictive of recurrence were studied. A study concerned 638 cases of seminoma showed that the invasion of the rete testis and greater than 4 cm tumor size were the main predictors of lymph node recurrence. [15] These factors are not applicable to the SS. [1] As in case of the SS, the risk of developing a contralateral testicular tumor exceeds 10%, it is important to monitor by repeated clinical and ultrasound examinations, while emphasizing the importance of the teaching of 'self-examination.

Conclusion

The SS is a rare testicular tumor with clean clinical and histological features It has a very low metastatic potential and its treatment amounts to orchiectomy. The identification of this tumor at pathological examination allows to prevent further treatment to the patient. The prognosis of this tumor is favorable; However, surveillance, including adelphe testicle is required.

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