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Paratesticular leiomyosarcoma: A clinical case report

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ABSTRACT

We present you a Case of 62 year old man with Paratesticular leiomyosarcoma (LMS) localized to the right sctotal half. Detailed pathological and immunohistochemistry characteristic of the tumor was done. For staging was used the classification of French Federation of Cancer Centres Sarcoma Grading System. The final grading of the tumor is grade 3. Paratesticular LMS is rare identity and serves as a diagnostic and treatment challenge.

Introduction

Paratescticular tumors can be categorized as bening (70%) and malignant (30%). Sarcomas of the genitourinary tract are uncommon and represent only 1–2% of all urological malignancies.

Paratesticular LMS is a malignant mesenchymal tumor with smooth muscle differentiation and present 10–30% of all paratesticular sarcomas. 5 year and 10 year disease specific survival rates are 77% and 66%.There is no evidence for genetic abnormality in cases of male patients with paratesticular leiomysarcoma.This type of tumor spreads by three ways-lymphatic(external iliac, hypogastric, common iliac, retroperitoneal lymph nodes),hematogenous(lungs are most common site),and by local extension.

Paratesticular LMS is difficult to diagnose preoperatively and a definitive diagnosis requires a histologic examination of a resected specimen to observe morphological and immunohistochemical differentiation.

Case Presentation

A 62 year old man presented to us with two years history for palpable mass in his right scrotal half growing up slowly without any complains of pain.On our clinical examination his right scrotal half looks larger than the other one, and the right testis located anterior to the scrotum with hard and unequal mass palpable posteriorly.

Description from scrotal ultrasound was for big mix echogenic mass with location in upper pole of right testis. Tumor markers: AFP, beta-hCG and LDH was negative for testicular tumor. Computed tomography of thorax, abdomen and pelvis showed no data for metastasis or involvement of lymphatic nodes [Fig. 1].

The patient was subjected to right radical inguinal orchiectomy under anesthesia with high ligation of spermatic cord and wide excision of right-sided scrotal tissue.

During operation we found large formation of spermatic cord that not involves the right testis and also we found a prehernial lipoma.

Histopathological result was for malignant tumor occurs from paratesticular zone with smooth muscle differentiation and no evidences for origin from right testis. Sarcoma with dominant stunning construction, build from spindle cells with moderate nuclear polymosrphism, scattered typical and atypical mitoses [Fig. 2].

Immunohistochemistry shows that cells were positive for: alpha smooth-muscle actin, focal positive for Desmin and for S100 protein [Fig. 3]. Aslo there were detected focal and merging necroses.

For staging was used the classification of French Federation of Cancer Centres Sarcoma Grading System:

- Tumor differentiation: Polimorphocellular sarcoma 3 points
- Mitotic caunt: 15 MF/10 HPF 2 points
- Tumor necrosis: less than 50% necrosis af all tumor 1 point
- Total score of differentiation is 6

The final grading of the tumor is grade 3.

Discussion

The first Case of paratesticular sarcoma was reported in 1845 by Le'Sauvage.[1] The most common histological subtypes are liposarcoma (20–32%), LMS (19–32%) and rhabdomyosarcoma (11–24%). Paratesticular LMS can arise from smooth muscle structures such as the wall of the epididymis or vas deferens, the cremaster muscle or the

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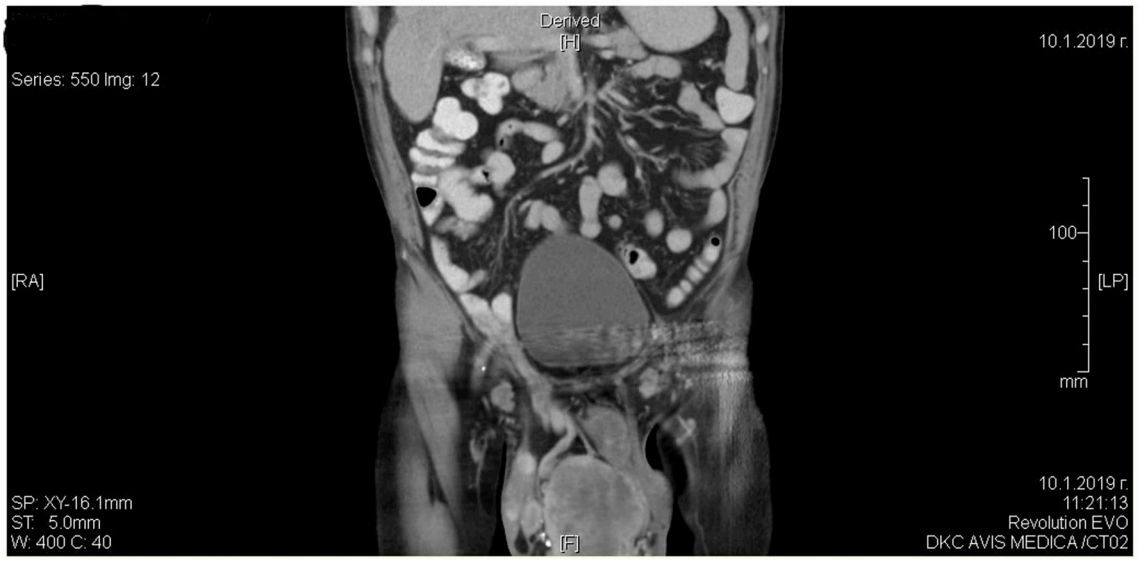

Fig. 1. CT scan: right scrotal mass.

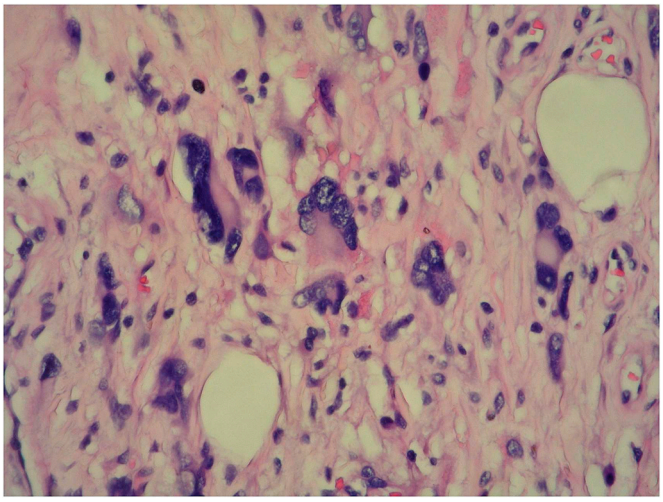

Fig. 2. HE x 100.

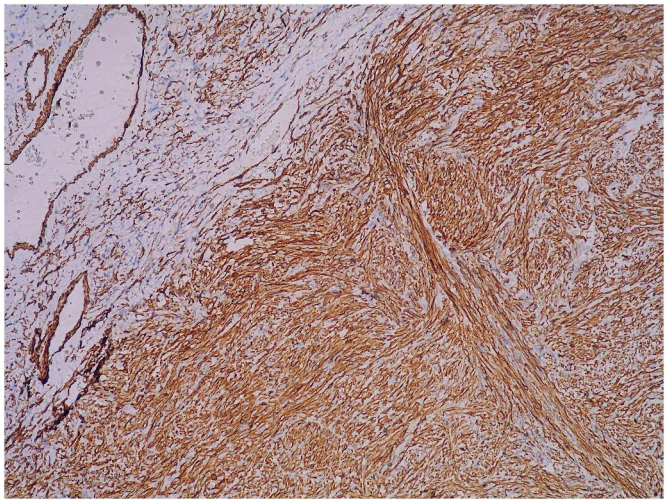

Fig. 3. SM actine x 25.

contractile tissues of the tunica. Around 110 cases of paratesticular LMS have been reported by these days.[2] Age at presentation is between sixth and seventh decade.[3] Investigation for paratesticular leiomyosarcoma should consist scrotal ultrasound scanning, rates of tumor markers (normal or abnormal) and pre-operative CT.

The most important for put the diagnose of paratesticular leiomyosarcoma is typical histological and immunohistochemical results for this type of malignancy.

In our days radical inguinal orchidectomy with high ligation of spermatic cord is standart surgical treatment for resectable tumors.[4] Single or multiagent chemotherapy or radiotherapy is type of choice for nonoperable or metastatic tumors. The role of lymphnode dissection is not already proved.

All patients with this disease require a strong follow-up for detect a recurrence, because recurrences are common. Multivariate analysis revealed that tumor grade, stage, histologic type, and lymph node involvement were independently predictive of prognosis.[5]

Conclusion

In our Case we have a patient with high grade leiomyosarcoma that had typical findings in the history, examination and went for the typical surgery treatment. Despite the good long-term survival, careful follow-up of patients is needed, because the risk of recurrence.

Conflicts of interest

The authors declare that they have no competing interests.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.eucr.2019.100913.

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