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Original Research Paper

Surgery

GIANT PARATESTICULAR LIPOSARCOMA: A RARE ENTITY

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ABSTRACT Paratesticular liposarcoma (PLS) are rare malignant neoplasms; which are derived from mesodermal tissues. They are slow growing tumors and tumors of size greater than 10cm are quite rare. There is no standardized guideline for management. A case of a giant well differentiated PLS measuring 26x24x12cm was encountered and is being described.

KEYWORDS : Paratesticular Tumor, Liposarcoma, Scrotal Mass.

INTRODUCTION

PLS are rare neoplasms which compose approximately 12% of all liposarcomas; and mostly originate in spermatic cord followed by testicular tunics and epididymis.[1] No more than 200 cases of PLS have been reported till date.[2] Giant PLS is more rare with only a few case reports.[3-7] Due to the rarity of the disease, there is no standardized guideline as regards its incidence, diagnosis, recurrence and treatment.[8] We present a case of a giant well differentiated PLS measuring 26x24x12 cm.

CASE STUDY

A 70-year-old man, presented with a painless and slow-growing mass in the right scrotum without conspicuous promoting or alleviating factors. There were no other signs or symptoms. A firm non-tender mass present in the right scrotum, of size 26cm X 24cm X 12cm, was the only positive finding on physical examination. There were no specific abnormalities in the laboratory and imaging

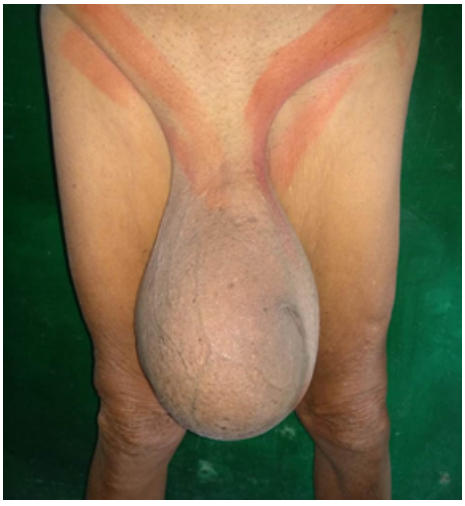

Figure 1: Clinical Photograph

reports (hemogram, urinalysis, stool routine, ESR, β-human chorionic gonadotropin, α-fetoprotein, liver and kidney function tests and chest X-ray). A provisional diagnosis of testicular malignancy was made. The patient underwent a radical resection of

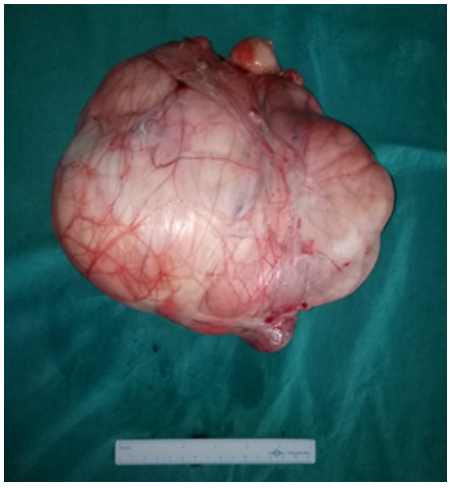

Figure 2: Excised Specimen

the tumor with a right orchiectomy. On gross pathological examination, the tumor was 26X24X12cm in size.

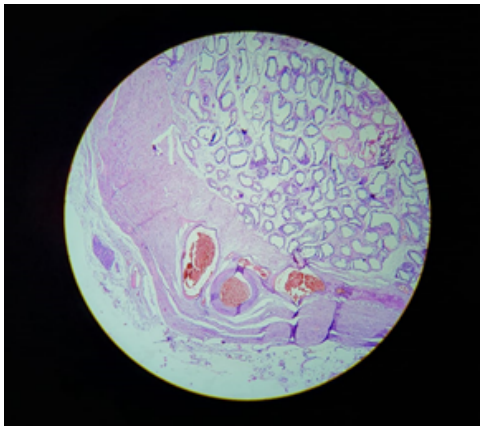

Figure 3: Microscopic Pathology

The cut surface showed grey yellow homogenous areas alternating with fibrous bands. Microscopy revealed mature fibro-adipose tissue alternating with fibrous areas comprising of collagen fibres admixed with spindle cells. Some of them were lobulated and had hyperchromatic pleomorphic nuclei

with incompicous nucleoli (i.e. atypical stromal cells). Lipoblasts and atypical mitotic figures were not conspicous. The right testis and spermatic cord were normal and free from tumor. A diagnosis of atypical lipomatous tumor, sclerosing sub type (well differentiated Liposarcoma) was confirmed.

DISCUSSION

Liposarcoma was first reported in 1845 by Lesauvage.[9] It accounts for 5-7% of paratesticular sarcoma.[10] Liposarcoma are malignant tumors of soft tissue origin and frequently involve the adult patients aged 50 to 60 years.[11] Usual sites of involvement are the lower extremities and retroperitoneum in about 70% of cases.[12] Paratesticular involvement by liposarcoma has been reported in just 200 cases till date.[2] Also, there are only few case reports of size more than 10cm and none more than 20cm. We encountered a giant liposarcoma of size 24X20X14cm.

Liposarcoma presents as a painless, slow-growing mass and may be clinically misdiagnosed as testicular malignancy.[2,9] Although, Ultrasonography, Computerized Tomography and Magnetic Resonance Imaging are advised for diagnosis of paratesticular liposarcoma; MRI is the golden standard.[13]

Diagnosis of PLS mainly depends on histopathology, immunohistochemistry and cytomorphological features. Three histological types of liposarcoma have been described, which include well differentiated (WDLPS), myxoid/round cell type and pleomorphic type.[13] Myxoid variety is the most common type and account for about 50% of all liposarcoma.[14] The histological subtypes of WDLPS are adipocytic, sclerosing, inflammatory and spindle cell type. The sclerosing type is more commonly seen in retroperitoneum and spermatic cord. Microscopy of sclerosing type of WDLPS reveals fibrocollagenous tissue with a fibrillary appearance. Scattered amongst it are mature adipocytes and bizarre hyperchromatic stromal cells, with few lipoblasts. IHC analysis of liposarcomas shows S100 positivity, while CD 34, actin, keratin, desmin all show negativity.[15] In our case, the histopathological features were diagnostic and in favour of WDLPS - sclerosing subtype.

Due to paucity of data in literature, on patients with paratesticular liposarcoma, there are no standardized guidelines for the management.[2] Multimodality therapy has been suggested in literature.[16] There is a general consensus that radical orchiectomy with wide local excision and high ligation of the spermatic cord is the current standard treatment strategy due to frequent recurrence that associated with incomplete excision.[9,13,17] Role of routine postoperative radiotherapy therapy remains to be discussed because recurrent tumor after radiotherapy is found to be more aggressive.[18] Chemotherapy has been recommended for high grade LPS.

In conclusion, PLS represent a rare tumor, often misdiagnosed preoperatively. The diagnosis depends on histopathology. Radical orchiectomy with wide local excision is recommended due to high risk of recurrence. Huge sized, rare paratesticular liposarcoma prompted us to report such a case which is one of the largest in size amongst its category.

REFERENCES

[1] Noguchi H, Naomoto Y, Haisa M, Yamatsuji T, Shigemitsu K, Uetsuka H, Hamasaki S and Tanaka N: Retroperitoneal liposarcoma presenting a indirect inguinal hernia. Acta Med Okayama 55: 51-54, 2001.

[2] Schoonjans C, Servaes D and Bronckaers M: Liposarcoma scroti: A rare paratesticular tumor. Acta Chir Belg 116: 122-125, 2016.

[3] Sopena-Sutil R, Silan F, Butron-Vila MT, Guerrero-Ramos F, Lagaron-Comba E and Passas-Martinez J: Multidisciplinary approach to giant paratesticular liposarcoma. Can Urol Assoc J 10: E316-E319, 2016.

[4] Fernandez F and Garcia HA: Giant dedifferenciated liposarcoma of the spermatic cord. Arch Esp Urol 62: 751-755, 2009 (In Spanish).

[5] Cariati A, Brignole E, Tonelli E and Filippi M: Giant paratesticular undifferentiated liposarcoma that developed in a long-standing inguinal hernia. Eur J Surg 168: 511-512, 2002.

[6] Kin T, Kitsukawa S, Shishido T, Maeda Y, Izutani T, Yonese J and Fukui I: Two cases of giant testicular tumor with widespread extension to the spermatic cord: Usefulness of upfront chemotherapy. Hinyokika Kiyo 45: 191-194, 1999 (In Japanese).

[7] Martin C, Olivier CM, Rengifo D, Hernandez Lao A, Ondina LM and Carballido J: Giant liposarcoma of the spermatic cord. Actas Urol Esp 17: 361-365, 1993 (In Spanish).

[8] Alyousef H, Osman EM and Gomha MA: Paratesticular liposarcoma: A case report and review of the literature. Case Rep Urol 2013: 806289, 2013.

[9] Vukmirović F, Zejnilović N and Ivović J: Liposarcoma of the paratesticular tissue and spermatic cord: A case report. Vojnosanit Pregl 70: 693-696, 2013.

[10] Coleman J, Brenman MF, Alektiar K et al. Adult spermatic cord sarcomas: management and results. Ann Surg Oncol 2003; 10:669-675.

[11] Fitzgerald S and Maclennan GT: Paratesticular liposarcoma. J Urol 181: 331-332, 2009.

[12] Vinayagam K, Hosamath V, Honnappa S and Rau AR: Paratesticular liposarcoma-masquerading as a testicular tumour. J Clin Diagn Res 8: 165-166, 2014.

[13] Pergel A, Yucel AF, Aydin I, Sahin DA, Gucer H and Kocakusak A: Paratesticular liposarcoma: A radiologic pathologic correlation. J Clin Imaging Sci 1: 57, 2011.

[14] Goverdhane P, Zafar FA, Geelani IA, Girish H, Sharma DVSLN, Rajagopal V, Swain M, Swamalatha G. Liposarcoma of spermatic cord – A rare entity. Apollo Medicine 2013; 10:83-84

[15] Fletcher CDM. Soft tissue tumours. In: Diagnostic Histopathology of Tumours. Fletcher CDM, 3rd ed, Churchill Livingstone, Elsevier; Philadelphia: 1527-92.

[16] Sherman KL, Wayne JD, Chung J, Agulnik M, Attar S, Hayes JP, Laskin WB, Peabody TD, Bentrem DJ, Pollock RE and Bilimoria KY: Assessment of multimodality therapy use for extremity sarcoma in the United States. J Surg Oncol 109: 395-404, 2014.

[17] Khandekar MJ, Raut CP, Hornick JL, Wang Q, Alexander BM and Baldini EH: Paratesticular liposarcoma: Unusual patterns of recurrence and importance of margins. Ann Surg Oncol 20: 2148-2155, 2013.

[18] Raza M, Vinay HG, Ali M and Siddesh G: Bilateral paratesticular liposarcoma-a rare case report. J Surg Tech Case Rep 6: 15-17, 2014.