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CASE REPORT

PARATESTICULAR SARCOMA MIMICKING AS LEFT SIDED TRAUMATIC HEMATOCELE: A CASE REPORT

Mohd. Arshad Raza[1], Ankur Popat[2], Ashutosh Shukla[3], Ranjan Agarwal[4]

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ABSTRACT: Malignant tumors of the testis are rare. Para-testicular tumors (Mostly arising from spermatic cord, epididymis and tunica) are very rare. Malignant para-testicular tumors are extremely rare. We are presenting a case report of low grade fibromyxoid sarcoma, a para-testicular tumor, in a 14 year age child which mimicked as traumatic hematocele on left side of scrotum. After proper consent from the attendants of the patient we decided to explore the scrotal swelling through vertical scrotal incision. It was only on exploration that we suspected it to be a malignant growth. We did left side radical orchiectomy with high ligation of spermatic cord (Extending the incision to left inguinal region) and full specimen sent for histopathological examination. The contralateral testis was healthy which was spared for future fertility. Post-operatively patient recovered uneventfully and discharged in satisfactory condition with advice to come for regular follow up.

KEYWORDS: Para-testicular tumor, Low grade fibromyxoid sarcoma, Radical orchiectomy.

INTRODUCTION: Primary tumors of the para-testicular region are rare.[1] As the para-testicular region contains various structures, including the epididymis, spermatic cord, tunica vaginalis and strong fat-ligament muscle supporting tissues, it may give rise to a number tumor types with various behaviors.[2]

Ninety percent of extra testicular tumors occurring within the scrotum are found in the spermatic cord. Of the latter, 30 percent are malignant and 70 percent are benign.[3]

Most para-testicular sarcoma present as a scrotal mass or swelling which may or may not be painful and is occasionally accompanied by hydrocele. Clinical diagnosis of tumors of para-testicular region can be difficult. In some cases they are found only at exploration if not suspected and evaluated by imaging studies like USG or CT scan preoperatively.

In general, these lesions should be approached through an inguinal incision to do radical orchiectomy with high ligation of spermatic cord. If malignancy is suspected at exploration, frozen sections should be obtained.

Scrotal incision can be extended to inguinal region to perform radical orchiectomy with high ligation of spermatic cord in cases of malignancy. No general consensus has been reached with regard to regional lymph node excision, radiotherapy and chemotherapy because of rarity of para-testicular tumors.

CASE REPORT: A 14 years old boy presented in the general surgery OPD with painful swelling in left side scrotum following trauma-14 days back. Physical examination revealed a left sided scrotal swelling which was tender on palpation. It was possible to get above the swelling. Swelling was fluctuant and the Trans illumination test was negative. Right testis was normal.

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No other constitutional signs were present. Patient was advised for USG scrotum which revealed finding suggestive of large heterogenous collection seen in the left sided scrotal sac. Patient was admitted and investigated further. Full blood count, blood sugar, urea, serum creatinine and chest X-ray revealed no abnormality. A differential diagnosis of left sided traumatic haematocele was made based on the examination and USG scrotum findings. An exploratory operation of the left scrotum was scheduled after proper consent from patient and attendants.

During the operation minimal scrotal wall haematoma with large soft swelling with mucous pockets was found. It led to the suspicion of some malignancy and consent was revised for orchiectomy. The incision was extended to left inguinal region and with high ligation of spermatic cord left sided radical orchiectomy was performed (Figure 1). The postoperative period was uneventful and stitches removed on 8th post-op day. Patient was discharged from the hospital in satisfactory condition with advice to come in surgery OPD for collection of HPE report and follow up.

The histology report was suggestive of macroscopic specimen consisting of an irregular greyish-brown cyst like soft tissue piece with testis and mucous pockets measuring 10x 8x6cm in size (Figure 2). Testis was of normal size and shape. Sections showed moderate cellularity consisting of bland spindle shaped cells. Nuclei were small, oval in shape and hyper chromatic with finely clumped chromatin and nucleoli.

Cells had indistinct pale eosinophillic cytoplasm and showed mild nuclear pleomorphism with little mitotic activity. Cells were deposited in fibrous and myxoid stroma showing variation in different areas of tumor. Testis were spared and showed normal looking seminiferous tubules (Figure 3, 4). Immunohistochemically

Vimentin showed focal positivity, Desmin showed focal positivity, S-100 negative, CK negative, Ki-67 positive. On the basis of the histopathological and immunohistochemical features, the tumour was diagnosed as a low grade fibromyxoid para-testicular sarcoma.

Patient was reviewed in the general surgery OPD and investigated further for possible metastasis. CECT whole abdomen was done which revealed no abnormality, no retroperitoneal lymphadenopathy. X-ray chest was also of normal study. Patient biomarkers, LDH, AFP, βHCG also showed no abnormality (AFP- 2.10ηg/ml, LDH–316IU, βHCG -). Patient was referred to higher centre for radiotherapy and advised for regular follow up every month for first six months.

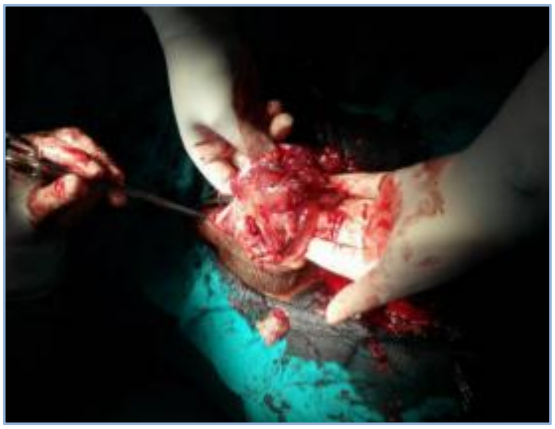

Fig. 1: Intra-Operative Image of the Scrotal Mass

Fig. 2: Macroscopic appearance of the huge para-testicular Tumor

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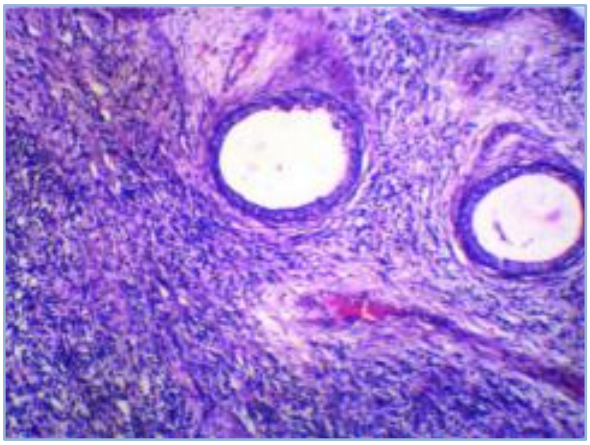

Fig. 3: Low Grade sarcoma of Para-testicular soft Tissues with a Myofibroblastic phenotype (Low field)

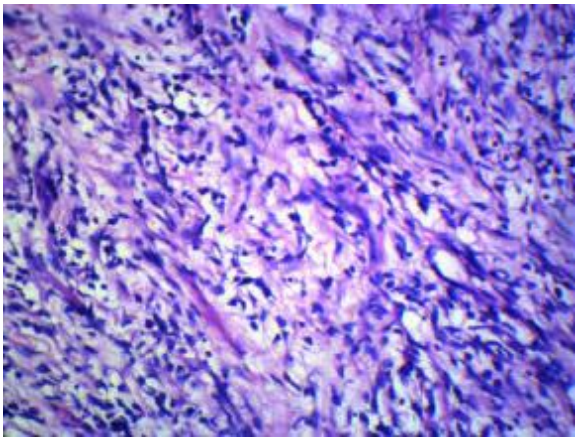

Fig. 4: Low Grade sarcoma of Para-testicular soft Tissues with a Myofibroblastic phenotype (High field)

DISCUSSION: The majority of the masses within the scrotum in adults are of testicular origin. Para-testicular masses account for 2-3% and sarcomas account for ~30% of all scrotal masses,[2,3] The most common type of sarcoma is liposarcoma, followed by leiomyosarcoma (LMS), rhabdo myo-sarcoma (RMS), undifferentiated pleomorphic sarcoma and fibrosarcoma.[1,2,3] Soft tissue sarcomas are heterogeneous group of dense tumours which originate from embryonic mesenchymal cells (Mesoderm), presenting multiple clinical patterns.[1,4,5,6]

Tumours of the para-testicular region most often arise from the soft tissue surrounding the spermatic cord and the epididymis or from the dartos muscle of scrotal wall. It is often difficult, however, to localize the precise origin of these tumours.[1,7,8]

In reviewing the published series of sarcoma, leiomyo-sarcoma followed by rhabdomyosarcoma and liposarcoma are the commonest reported histological subtypes.[1]

Fibromyxoid subtype is rare and typically presents in the extremeties of elderly people.[9-11] Low grade fibromyxoid sarcoma is a relatively rare sarcoma.[12,13] The upper extremities and the torso are the most frequent locations. Low. Grade fibromyxoid sarcoma usually exhibits variable microscopic findings, with bland fibroblasts, whorls, linear sequencing and less cellular myxoid sections in certain areas.[12] Our case was diagnosed with low grade fibromyxoid sarcoma of paratesticular origin and on reviewing the literature it may be the third case ever reported.

Tumours of the para-testicular region usually present as a scrotal mass or swelling, which may or may not be painful and is occasionally accompanied by a hydrocele. These tumours are difficult to distinguish from testicular tumours clinically and differentiation between benign and malignant masses using radiology is challenging.[1]

Our case came with a left sided scrotal swelling with history of trauma. On the basis of clinical examination and USG scrotum finding he was taken up for exploratory surgery of the left side scrotum with a differential diagnosis of hematocele of left side of scrotum. To our surprise patient had scrotal mass with myxoid material suspicious of some malignancy. Incision was extended and left sided high inguinal radical orchiectomy was performed.

As per Coleman et al, the accepted treatment for para-testicular sarcoma is radical inguinal orchiectomy. Patients with an initial incomplete resection should undergo repeat wide excision. Additional therapy is dictated by the presence of regional or distant metastases.[14]

Postoperative radiation therapy may be considered in those in whom the adequacy of local excision is in doubt, although the efficacy of this approach is debated.[14,15] Systemic chemotherapy should be given to patients with evidence of retroperitoneal or distant metastases.[14]

Due to rarity of disease no definitive consensus regarding regional lymph node dissection, radiotherapy and chemotherapy has been reached.

Our case when diagnosed with a low grade fibromyxoid sarcoma was evaluated for distant metastasis by CECT whole abdomen and tumour biomarkers which revealed no abnormality. Patient was referred to higher centre for radiotherapy and advised for regular follow up every month for first six months.

CONCLUSION: Tumors occurring in the para-testicular region may be clinically indistinguishable from testicular tumors, and other scrotal swellings like organized hematocele, thus resulting in initial misdiagnosis. Clinicians must have a high index of suspicion that it is the trauma which has drawn the attention of patient to the scrotal swelling (Testicular or para-testicular tumor).

So para-testicular tumors should also be considered in the differential diagnosis of scrotal masses and investigated accordingly. One simpler and cost effective, easily available imaging technique is ultrasonography. CT, MRI can also be used for further evaluation of these masses. High inguinal orchiectomy and post-op long term follow-up is recommended because of high risk of local recurrence.

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AUTHORS:

1. Mohd. Arshad Raza
2. Ankur Popat
3. Ashutosh Shukla
4. Ranjan Agarwal

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of General Surgery, Rohilkhand Medical College and Hospital, Bareilly.
2. 3rd Year Post Graduate, Department of General Surgery Rohilkhand Medical College and Hospital, Bareilly.
3. 2nd Year Post Graduate, Department of General Surgery, Rohilkhand Medical College and Hospital, Bareilly.
4. Professor, Department of Pathology, Rohilkhand Medical College and Hospital, Bareilly.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Mohd. Arshad Raza,
Assistant Professor,
Department of General Surgery,
Rohilkhand Medical College and Hospital,
Bareilly-243006,
Uttar Pradesh.
E-mail: drarshadraza@gmail.com

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