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SCROTAL LEIOMYOSARCOMA - UNCOMMON SITE FOR A COMMON LESION.

Pathology

Vidhya. V — PG resident, Department of Pathology, Sri Ramachandra Institue of Higher Education and Research, Chennai

Leena Dennis Joseph* — Professor, Department of Pathology, Sri Ramachandra Institue of Higher Education and Research, Chennai *Corresponding Author

M. Susruthan — Associate Professor, Department of Pathology, Sri Ramachandra Institue of Higher Education and Research, Chennai

Mohana Priya — Associate Professor, Department of Pathology, Sri Ramachandra Institue of Higher Education and Research, Chennai

K. Balaji Singh — Professor and HOD, Department of Pathology, Sri Ramachandra Institue of Higher Education and Research, Chennai

J. C. Bose — Professor and HOD, Department of Pathology, Sri Ramachandra Institue of Higher Education and Research, Chennai

ABSTRACT

We report a rare case of leiomyosarcoma of the scrotum in a 62 year old gentleman who underwent edge wedge biopsy followed by wide local excision of the lesion. Soft tissue sarcomas account for 1% of all malignancies and leiomyosarcoma constitute 10-20% of soft tissue sarcomas. Very few cases of leiomyosarcoma of the scrotum have so far been reported in India.

KEYWORDS

INTRODUCTION

Soft tissue sarcomas account for 1% ofallmalignancies1. Leiomyosarcoma of the scrotum, not involving the testis, epididym is and spermatic cord, belong to the group of subcutaneous superficial leiomyosarcoma. Subcutaneous scrotal tumors have been reported to be associated with an increased risk of local recurrence and distant metastasis 2. Usually these tumors present as slow growing firm, rubbery masses. Diagnosis is usually based on histology followed by ancillary studies. Wide local excision is the treatment of choice. Immunohistochemistry for Smooth Muscle Act in (SMA)confirms the diagnosis. Long term regular follow up is important due to the increased chances of local recurrence in the patient. We report a case of 62 year old male presenting with complaints of right sided ulcer oproliferative scrotal mass.

CASE DETAILS

A 62 year old male presented with right sided ulceroproliferative scrotal mass that had been steadily enlarging for last 2 years.It was mobile and non adherent to underlying testis, epididymis and spermatic cord. There was no inguinal or abdominal lymph node enlargement. Testis and epididymis on both sides were normal.

With this presentation, a clinical diagnosis of squamous cell carcinoma was rendered.

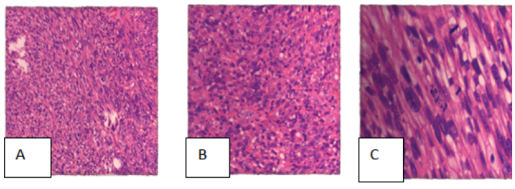
Haematological examination and biochemical investigations were normal.Edge wedge biopsy followed by complete excision of the lesion was done.

Wide local excision specimen included penis and scrotum weighing 1600 gms,measuring
20 x 19 x 18 cm. Focal ulcerated lesion on right lateral aspect measured 8 x 7 x 4 cms.

Multiple lesions seen over scrotum and glans, not involving the underlying parenchyma were firm to hard with no gray black areas.

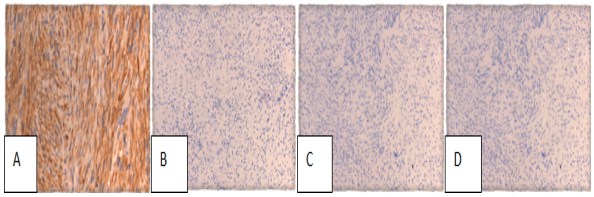
Hematoxylin and Eosin stained sections showed features of high grade spindle cell sarcoma.

Fig.1.(A) Spindle shaped tumor cells (H&E x 40). (B) The spindle shaped cells with nuclear pleomorphism, prominent nucleoli with increased mitosis(H&E x 100) . (C) Atypical mitosis (H&E x 400)



Further Immunohistochemistry confirmation was done by strong positivity for Smooth Muscle Actin(SMA) and negativity for S100, HMB45 and P63 ,which ruled out other diagnostically similar cases.

Fig.2.(A) SMA strongly positive confirming Leiomyosarcoma (IHC x 100).(B) S100 negative ruling out nerve sheath tumors (IHC x 100).(C) HMB45 negative ruling out malignant melanoma(IHC x 100). (D) p63 negative ruling out squamous cell carcinoma(IHC x100)



DISCUSSION

Leiomyosarcoma are malignant mesenchymal neoplasms arising from smooth muscle , most common location in adults being extremities. More frequent malignant sarcomatous tumors in scrotum are rhabdomyosarcoma, leiomyosarcoma and liposarcoma 1. Their location in scrotum is very rare. To date around 40 cases of leiomyosarcoma of scrotum have been reported in literature 1,2,3,4. Etiology is still unknown. However, the risk factors include high dose anabolic steroids, chronic inflammation of the testis, and testicular field irradiation for the treatment of leukemia [2,5].

Grossly they are large, well circumscribed and smooth masses, often showing tumor necrosis, hemorrhage and cystic degeneration. Microscopically they present as spindle cells with cigar shaped nuclei arranged in interweaving fascicles. It is very important to differentiate leiomyoma and leiomyosarcoma.The latter presents with nuclear atypia and high mitotic figures. Leiomyosarcoma of scrotum is a very rare presentation, occurring in the 6th to 7th decade.

It usually presents as painless slow growing skin lesion6. TNM system grades tumors according to their degree of differentiation[7].

Scrotal sarcoma in adults should be managed with complete surgical resection with safe and clear margin [8,9].

Japanese guidelines for the treatment of soft tissue tumor, recommend that soft tissue tumors should be resected with 20mm safety margin [2].

Radiation therapy in leiomyosarcoma has doubtful value, it can help in reducing the chances of local recurrence 1. A recent review on risk of second malignancies following radiation therapy showed that one in seventy patients undergoing radiation to prostate carcinoma in less than 10 years develop second tumor. Leiomyosarcoma of scrotum is one suchtumor 3,5.Tendency of hematogenous spread is high, hence the effect of retroperitoneal lymphadenectomy is unclear and usually not suggested 4. Recurrence most commonly tends to be local but distant metastasis to the bones and lungs have been reported 10. Hence long term regular follow up is recommended.

CONCLUSION

Though leiomyosarcoma is a rare condition, it should be considered in the differential diagnosis of scrotal mass, as this can help in appropriate management of the patient.

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