Case Report

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Intrascrotal Muscular Myxoma - A Case Report

Surgery Section

PRASANNA KUMAR DEBATA[1], VIVEK G NATH[2], RAMAKANT MOHANTY[3], JITENDRA KUMAR BARAD[4], DEBASIS DEBATA[5]

ABSTRACT

Myxomas are gelatinous tumours that commonly appear as circumscribed masses situated within muscles. It can occur at various sites. However, mostly found in cardiac muscles and skeletal muscles of extremities. Published cases of intrascrotal myxoma are rare in literature. A 28-year-old male was admitted to our General Surgery Department with a history of a gradually enlarging mass in the scrotum and scrotal discomfort since two years. After cytological and imaging investigations, a scrotal exploration was performed with plexiform neurofibroma as the preoperative diagnosis. Histopathological examination of the specimen revealed features of intramuscular myxoma. Although a relatively rare diagnosis, intramuscular myxoma should be considered as a differential diagnosis of testicular and paratesticular tumours.

Keywords: Mesenchymal tumour, Myxoid matrix, Scrotal mass, Spindled cells, Stellate cells

CASE REPORT

A 28-year-old male was admitted in the Department of General Surgery, with complaint of a dull aching, gradually enlarging mass in the left scrotum since two years. There was no history of trauma to scrotum, voiding discomforts, intermittent fever, haematuria or any other similar swellings elsewhere in the body. There were no other significant past medical illness and surgical history.

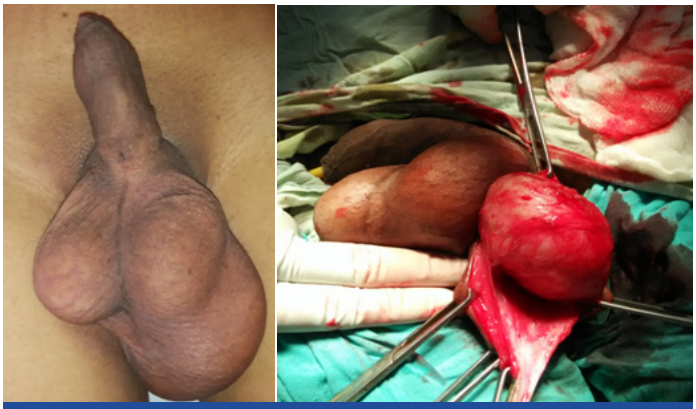
On examination, a firm, non-tender, spherical, mobile, elastic swelling of size 8×6 cm which was non transiluminating was found in the left scrotum. Testis, epidydimis and rest of the chord appeared normal with no attachment to the mass [Table/Fig-1]. Abdominal examination and hernial orifices were normal. No other similar swelling was found elsewhere in the body. All other systems appear within normal limits.

Routine laboratory investigations were within normal limits. Ultra sonography revealed a lobulated well marginated, inhomogenous, hypoechoic mass with multiple internal septas. Internal neovascularity was noted in left side of scrotum in the subcutaneous tissue plane – suggestive of a peripheral nerve sheath tumour.

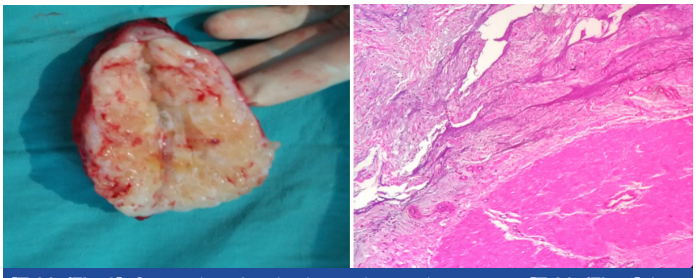
The swelling was subjected to Fine Needle Aspiration Cytology (FNAC) which was suggestive of fibromyxomatous degeneration of neurofibroma (solitary intrascrotal plexiform neurofibroma). A scrotal exploration was planned with plexiform neurofibroma as a preoperative diagnosis, possibly arising from genital branch of genitofemoral nerve. Intraoperatively, a solitary, ovoid, pink mass of size 10×5×5cm, located posterior to the left testis with no testicular or epidydimal involvement was found [Table/Fig-2]. Mass carefully resected out and sent for histopathological examination.

Cut section of the specimen was soft, yellowish and glistening [Table/Fig-3]. Histopathological study revealed fibrocollagenous stroma with wide area of myxoid matrix having spindled and stellate cells, intersecting fibrous septa and striated muscle bundle separating lobules of myxoid material, suggestive of an intrascrotal intramuscular myxoma [Table/Fig-4,5].

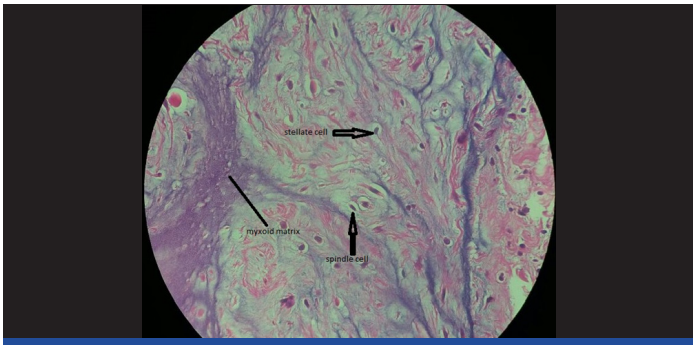
Postoperative period was uneventful with normal wound healing. One year follow up did not reveal any physical findings suggestive of local recurrence or similar swelling elsewhere in the body.



[Table/Fig-1]: Clinical photograph of intrascrotal muscular myxoma.
[Table/Fig-2]: Intraoperative photograph of scrotal muscular myxoma.



[Table/Fig-3]: Cut section of excised scrotal muscular myxoma. **[Table/Fig-4]:** Low power H&E stained histopathological picture of muscular myxoma.



[Table/Fig-5]: A 40x magnified H&E stained histopathological picture of muscular myxoma.

DISCUSSION

The word myxoma is used to describe a tumour that histologically resembles the mucinous substance of the umbilical cord and was first used by Virchow in 1871 [1]. It was first described as a tumour of primitive mesenchyme by Stout in 1948. Intramuscular myxoma is a rare benign tumour of the musculoskeletal system. It has a slight female preponderance. The tumour may occur in isolation or in association with fibrous dysplasia or Albright syndrome. When multiple, and in association with fibrous dysplasia, they are called Mazabraud's syndrome [2]. Clinically intramuscular myxoma is usually a single, painless, firm, fluctuant and mobile palpable swelling. It mostly tends to involve the muscles of the thighs, buttocks, and shoulders, but can be found in any muscle group in the body. Radiological evaluation can be done with an Ultrasound, CT or MRI [3]. In Ultrasound, the intramuscular myxoma may be viewed as a hypo-echoic lesion with margin well-defined and there may also be presence of anechoic cystic foci. [3]. Intramuscular myxoma, in CT, will usually present as a well demarcated homogeneous low density lesion within the skeletal muscle [4]. Low signal intensity on T1 weighted images and high signal intensity on T2 weighted, gradient echo or STIR images are the salient MRI findings [3]. Diagnosis has to be made from histopathological examination of biopsy specimen and not just by imaging. FNAC usually fails to cling to the diagnosis due to the inadequate cellularity on aspiration and abundance of myxoid tissue [5]. Macroscopically, the tumour appears as a well encapsulated oval or spherical mass with minor infiltration to surrounding tissue. Cut section of the specimen will have a white or grey-white mucoid gelatinous surface with small cyst like spaces or traversing trabeculae.

On histopathological examination with H&E staining, there is abundant basophilic proteoglycan matrix material with relative hypocellularity, hypovascularity and loose reticulin fibers [6]. In high power, few cells have a spindle to stellate shape with small hyper chromatic pyknotic nuclei and scanty cytoplasm [6]. Some myxomas may show focal areas of hyper cellularity [6]. Features of malignancy like nuclear atypia, mitotic figures or necrosis will be absent. Immunohistochemical panel shows positive staining for Vimentin, negative for Desmin and S 100. Neurofibromas will be s-100 positive [7].

The differential diagnosis to be considered are aggressive angiomyxoma, myxoid neurofibroma, fibromyxoid sarcomas, metastasis, and other benign intramuscular tumours such as lipoma, haemangioma, haematoma, desmoids tumour [7-9]. The mass has very rare recurrence with surgical excision being the mainstay treatment [4].

CONCLUSION

Though intrascrotal muscular myxoma is extremely rare diagnosis with remote chance of recurrence after excision. General surgeons and Urology surgeons should bear this tumour in mind while dealing with a scrotal swelling.

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PARTICULARS OF CONTRIBUTORS:
1. Professor, Department of General Surgery, SCB Medical College, Cuttack, Odisha, India.
2. Junior Resident, Department of General Surgery, SCB Medical College, Cuttack, Odisha, India.
3. Assistant Professor, Department of General Surgery, SCB Medical College, Cuttack, Odisha, India.
4. Junior Resident, Department of General Surgery, SCB Medical College, Cuttack, Odisha, India.
5. Senior Resident, Department of Anesthesiology, SCB Medical College, Cuttack, Odisha, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Vivek G Nath,
Gajaraj Palace, Flat 4C,11-B Cantonment Road, Cuttack-753001, Odisha, India.
E-mail: drvivekgnath@gmail.com

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