Urology Open Access Open Journal

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Case Report

Fibrous Pseudotumor of Para Testicular Region; A Rare Clinical Entity

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Received: Feb 27th, 2021; **Accepted:** Mar 5th, 2021; **Published:** Mar 5th, 2021

Citation: Smain AM, Bhatti KH, Sohail N, Gomha FS, Shaat AH, Abdelrahman KH, Channa AA, Cheema NA. Fibrous pseudotumor of para testicular region; A rare clinical entity. *Urology Open A Open J.* 2021; 2(2): 62-64. doi: 10.33169/uro.UOAOJ-2-117

ABSTRACT

Background

Para testicular pseudotumor is a rare benign tumour originating most commonly from tunica vaginalis, less commonly from tunica albuginea, epididymis, and the spermatic cord.

Case Presentation

We present a case of a 27- year old Asian male patient who presented with painless palpable mass in the left hemiscrotum. Scrotal ultrasonography showed well-defined lobulated solid left Para testicular lesion closely related to the tunica/epididymis with specks of calcification within the lesion. Scrotal exploration and excision of the tumour was performed. Histopathology Findings revealed fibrous pseudotumor.

Conclusion

Para testicular fibrous pseudotumor is a rare clinical entity in young adults, scrotal swelling mimics testicular tumour. Preoperative diagnosis is a pitfall. Histopathology is the only way to establish diagnosis.

Keywords: *Para testicular; Tumors; Surgical exploration; Orchiectomy.*

INTRODUCTION

Para testicular pseudo tumors have perplexity due to their unknown origin and wide variation in morphology and topographical features. Clinicopathological presentation of fibrous tumour is a pitfall. Para testicular pseudo tumour was first described by Sir Astley Cooper in 1830 & was first reported by Balloch in 1904.[1]

The tumour is a benign lesion, occurs due to reactive fibrous inflammatory hyperplasia.[2] It accounts for 6% of all para testicular lesions and the second most common type of para testicular tumors,[3] usually it presents as painless scrotal mass which can be associated with hydrocele or previous history of infection, trauma or surgery.[4] In 75% of cases tunica vaginalis is involved.[5]

Mostofi and Price in 1973 reviewed the cases of Para testicular fibrous pseudotumor, these tumors may occur as a single or as disseminated nodules. Microscopically noticed that nodules consist of dense, almost acellular and hyalinized collagen.[6]

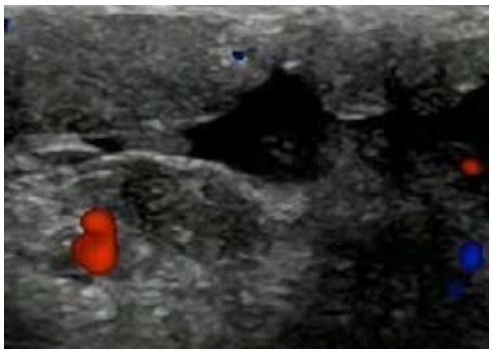
Clinical management of Para testicular fibrous pseudotumor is still unresolved. Intra scrotal mass may mimic as a testicular neoplasm. It is difficult to differentiate Fibrous pseudotumor from malignant lesions via clinical and radiological findings or to establish the diagnosis in preoperative. The diagnostic procedure consists of tumour

markers, ultrasound scrotum, MRI of testes and frozen section if available. Therefore, there is still not a consensus about management. Here we report 27 years old Asian presented with painless mass, all available investigations done then scrotal exploration and excision of the mass performed. Histopathology revealed fibrous pseudotumor.

CASE PRESENTATION

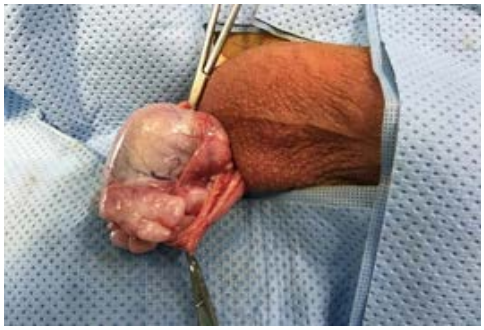
A 27- year old man was presented with a 3 years history of swelling and irregularity of the left testis with no history of trauma, epididymitis, torsion, surgery or infection. The past medical and surgical history was unremarkable. Driver by profession, married, having 2 kids and a non-smoker. Physical examination revealed a solid, irregular, non-tender mass at the upper pole of the left testis & epididymis. Abdominal and inguinal area examination revealed no mass or palpable lymph nodes. The right testis and epididymis were normal. Serum tumour markers (α-fetoprotein & β-human chorionic gonadotropin) were within normal range. Ultrasound Doppler of the testes showed both testes appeared normal, shape and echogenicity. No intra testicular focal lesion, preserved vascularity is seen in colour Doppler imaging. A Well-defined lobulated solid left para testicular lesion, the lesion measured 3.1 × 0.6 cm, has the same echogenicity as that of the testis. No appreciable vascularity. (Figure 1)

Figure 1. Ultrasound of testicular lesion



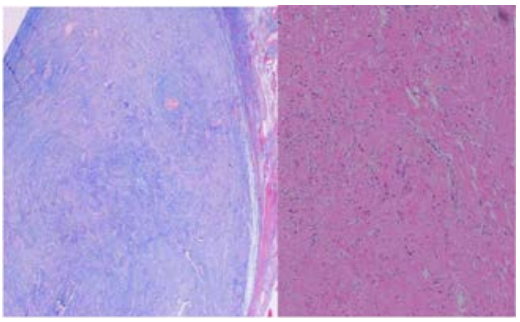
The patient had a surgical exploration via left transverse scrotal approach, the testis taken out of the scrotum; Tunica vaginalis opened, there was multi nodular, well-defined, different sizes para testicular masses closely related to the tunica vaginalis and epididymis. Excision of the masses done with Partial resection of the tunica vaginalis, leaving a margin of one centimetre. Care was taken not to injure testicular vessels, epididymis or ductus deferens. The edge of the tunica vaginalis is over sewn for hemostasis. (Figure 2)

Figure 2. Intra-operative findings of the lesion



Histopathology findings were consistent with fibrous pseudotumor and there was no evidence of malignancy in the specimen. (Figure 3)

Figure 3. Histo-pathological findings of para testicular tumor



The Patient was examined 3 months post-operatively, normal general examination. Follow up at 12th months' ultrasound abdomen and scrotum normal.

DISCUSSION

Para testicular fibromatous lesions recognized by Astley Copper in 1830. Different terminologies are used to describe this condition on the basis of variation in gross and microscopic appearance, the difference in cell origin, location, benign or malignant nature of these lesions. The terminologies include inflammatory pseudotumor, chronic proliferative periorchitis, nodular and diffuse fibrous proliferation, fibromatous orchitis, fibroma, benign fibrous Para testicular tumour, fibrous mesothelioma, and pseudo fibromatous periorchitis.[3] The term Para testicular fibrous pseudotumor is commonly used, and it is thought to be a reactive, non-neoplastic condition.

Fibrous pseudotumor may be seen in every age group, although the peak incidence is in the third decade of life. Of course, 50% of cases may be accompanied by hydrocele and 30% by previous trauma or epididymo-orchitis.[7] Less than 10% of the cases may have originated from the epididymis or spermatic cord.

According to the previous report, fibrous tumours would more commonly arise on the left side.[8] With respect to localization fibrous tumours are observed on the tunica vaginalis, epididymis and tunica albuginea in 76%, 10%, and 14% of the cases, respectively.

Grossly the fibrous pseudo tumours are well circumscribed lesions. Cystic changes, areas of necrosis, haemorrhage, and calcifications are rare, solid single or multiple nodules with sizes differing between 0.5-8 cm, mostly originate from testicular tunica and less frequently from spermatic cord and epididymis. Microscopic examination of Fibrous pseudotumor intermixed hyalinizing and hypercellular areas, heterogeneous inflammatory cells and intense myofibroblastic proliferation are remarkable. In addition, calcification, ossification, myxoid changes and chronic inflammatory infiltration of lymphocytes, plasma cells and histiocytes may be noted.[9]

Scrotal ultrasonography is the initial investigation tool in patients with Para testicular tumours. Ultrasound differentiates between an intra testicular or extra testicular lesion, and it helps to find a lesion either solid or cystic. Fibrous pseudo tumours are usually uniformly hypoechoic but can be hyperechoic depending on the amount of col-

lagen and the presence of calcification. Magnetic Resonance Imaging (MRI) can give additional information when an ultrasound is inconclusive.[10]

Surgical excision is the treatment of choice for Para testicular fibrous pseudotumor. Radical orchiectomy may be needed in cases where the lesion is diffuse & encasing the testis. Intraoperative frozen section biopsy can prevent orchiectomy in a young patient and is recommended when the testis is involved by the lesion.[11] Patients usually present with the complaint of unilateral and painless masses of various sizes.

The prognosis for benign fibrous Para testicular tumour is excellent and recurrence after complete surgical excision has not been reported in literature. This lesion is a consequence of a reactive proliferation of inflammatory fibrous tissue due to infection or trauma.

CONCLUSION

Para testicular fibrous pseudotumor is a rare clinical entity in young adults and two third involve the tunica vaginalis. Preoperative diagnosis is a pitfall. Surgical exploration and radical orchiectomy are indicated because this tumour mimics testicular tumour. Histopathology is the only way to establish diagnosis and to rule out malignant processes.

CONFLICTS OF INTEREST

None.

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