CASE REPORT

DIFFUSE FIBROUS PSEUDOTUMOR OF PARATESTICULAR TISSUE

AIJAZ AHMED MEMON, QURATULAIN SOOMRO

ABSTRACT

Paratesticular tumors are uncommon and comprise less than 5% of all intra-scrotal tumors. Fbrous pseudotumours are reactive fibrous proliferations of inflammatory and fibrous tissue, usually in response to surgery, trauma, infection, or inflammation. We present a case of a 25 years old male patient who presented with an asymptomatic firm non-tender right testicular swelling. Plasma HCG and alpha fetoprotein (AFP) levels were within normal limits. A total right orchidectomy and epididymectomy revealed normal testis completely encased by a thick firm fibrotic band of tissue. A diagnosis of diffuse fibrous pseudo tumor of para testicular tissue was made on histology. The possibility of fibrous pseudotumor of paratesticular tissue should be considered in young patients presenting with testicular swellings and normal tumor markers.

Key words *Para testicular tissue, Fibrous pseudotumor, Scrotal tumors.*

INTRODUCTION:

Fibrous pseudotumors of testicular tunics and paratesticular soft tissue are the second most common type of paratesticular tumors.[1] These are reactive proliferation of inflammatory and fibrous tissue. The initial stimulus may be a previous surgery, trauma, infection, or inflammation. It usually presents as unilateral scrotal swelling in patients of all ages. We herein report a case in a young adult.

CASE REPORT:

A 25 year old man presented with painless testicular swelling that had gradually increased in size over a period of two years. He had no history of trauma, surgery or infection of testes or systemic symptoms associated with it. His medical and surgical histories were insignificant, so were the familial and personal histories. On examination of scrotum, right testis was large (10cm x 6cm in size), firm, non-tender with well defined margins. Left testis, scrotal skin, both spermatic cords, and both inguinal regions were normal. Abdominal examination was also unremarkable. Plasma HCG and AFP levels were within normal limits.

Correspondence:
Dr. Aijaz Ahmed Memon
Department of Surgery, Unit I
Chandka Medical College & SMBBMU
Larkana
Email: aijaznmemon@gmail.com

Ultrasonography revealed an increase in right testicular size, with multiple small isoechoic masses, the largest measuring 2.3cm x 2.0cm, with no free fluid in the scrotum. Paraaortic lymph nodes were not enlarged and liver was normal. Preoperative routine laboratory investigations were in normal limits. Patient underwent a total right orchidectomy and epididymectomy, which revealed a firm gray brown testis measuring about 9cm x 6cm x 5cm and spermatic cord measuring 6cm x 0.5cm both weighing 145 gm (Fig-1). On cut section there was a grossly normal testicular tissue completely encased by a 3 cm thick firm gray brown fibrotic band of tissue. Histology revealed normal testicular tissue in maturation arrest and normal epididymis, while the paratesticular encasement showed diffuse fibrous tissue with lymphocytic and plasma cell infiltration and areas of lymphoid follicle formation. No necrosis, mitotic activity or pleomorphism was seen. Patient made uneventful recovery and remained well in follow up.

DISCUSSION:

Paratesticular tumors are collection of benign and malignant tumors that arise from tunica vaginalis, albuginea, epididymis and spermatic cord. These are uncommon tumors that comprise less than 5% of all intra-scrotal tumors. Lipoma is the most common benign paratesticular neoplasm.[1-3] Fibrous pseudo tumor is reported to be second most common paratesticular tumors and its exact incidence is unknown.[4]

A search of the literature shows few published cases of paratesticular fibrous pseudotumor, however the earliest reference to the case of paratesticular fibromatous mass is by Sir Astley Cooper in 1830, and a case report by Balloch in 1903.[2,4] Because of great variations in gross and microscopic appearance, cell of origin and nature of proliferation various terms have been applied to these lesions like chronic proliferative periorchitis, inflammatory pseudotumor, nodular and diffuse fibrous proliferation, proliferative funiculitis, fibromatos periorchitis, fibroma, benign fibrous paratesticular tumor, fibrous mesothelioma, pseudofibromatos periorchitis, nonspecific peritesticular fibrosis, and reactive periorchitis.[5,6] We prefered to use the term fibrous pseudotumor for the lesions with dense fibrous tissue as in our case.

The fibrous pseudotumor can affect patients of all ages, highest incidence has been reported in third decade of life. They rarely occur under 18 years, (only four cases have been reported in this age group).[7-9] They present as painless scrotal mass usually unilateral, only one bilateral case has been reported.[2] 40-50% cases have been reported to be associated with hydrocoele, 30% with trauma or epididymo-orchitis, while the remainder were idiopathic as in our case.[1,3] Some rare but interesting associations of these lesions have also been reported, including, association with testicular infarction,[7,9] schistosomiasis,[7,10] retroperitoneal fibrosis, Gorlin syndrome [2,7] and HIV particularly the inflammatory variant.[11]

The fibrous pseudotumors have variable appearance on ultrasonography. They may appear as one or more solid masses of variable size and echogenecity. A definite diagnosis of the fibrous pseudotumor cannot be made preoperatively due to nonspecific features. Usually radical orchidectomy or orchidectomy with epididymectomy is planned for these patients, as testilcular sparing surgeries are not possible in most of the cases especially in cases of fibromatous periorchitis and incomplete resection is postulated to lead to recurrence, although no cases of recurrence has been reported.[9] Once resected completely they behave in a benign manner with no malignant potential.[3]

Pathologically they occur as single or multiple white, gray brown firm nodules or masses varying in size, from 0.5 cm to 8 cm. Only one case with a mass measuring 25 cm has been reported as in our case. At the histological level, a fibrous pseudotumor is typically composed of dense hyalinized collagen stroma with para-cellular fibroblastic or myofibroblastic activity. They may sometime show chronic inflammation, patchy granulation tissue, calcification, myxoid change or even ossification.[12]

Our case was an uncommon paratesticular fibrous pseudotumor. It is important to consider the possibility of this lesion in young patients presenting with painless scrotal swelling and the serum tumor markers like serum HCG and AFP are within normal limits.

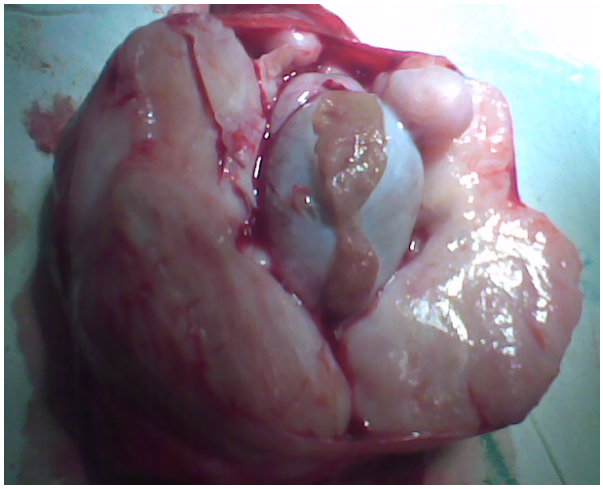

Fig. I: Resected tumor with normal testis encased by fibrous tissue

REFERENCES:

1. Akbar SA, Sayyed TA, Hasan Jafri SZ, Hasteh F, Neill JSA. Multimodality imaging of paratesticular neoplasms and their rare mimics. Radiographics 2003; 23:1461–76.

2. Ulbright TM, Amin MB, Young RH. Tumors of the testis, adnexa, spermatic cord and scrotum. In: Atlas of Tumor Pathology. 3rd series. Fascicle 25. Washington, DC: Armed Forces Institute of Pathology;1997:315–9.

3. Mostofi FK, Price EB. Tumors of the male genital system. In: Atlas of Tumor Pathology. 2nd series. Fascicle 8. Washington, DC: Armed Forces Institute of Pathology; 1973:151–4.

4. Tobias-Machado M, Correa Lopes Neto A, Simardi LH, Borrelli M, Wroclawski ER. Fibrous pseudotumor of tunica vaginalis and epididymis. Urology 2000;56:670.

5. Jones MA, Young RH, Scully R. Benign fibromatous tumors of the testis and paratesticular region: a report of 9 cases with a proposed classification of fibromatous tumors and tumor-like lesions. Am J Surg Pathol 1997; 21:296–305.

6. Srigley JR, Hartwick RWJ. Tumors and cysts of the paratesticular region. Pathol Ann 1990;25:51–108.

7. Seethala RR, Tirkes AT, Weinstein S, Tomaszewski JE, Malkowicz SB, Genega EM. Diffuse fibrous pseudotumor of the testicular tunics associated with an inflamed hydrocele. Arch Pathol Lab Med 2003; 127:742–4.

8. Bostwick DG. Spermatic cord and testicular adnexa. In: Bostwick DG, Eble JN (eds). Urologic Surgical Pathology. St Louis, MO: CV Mosby Co; 1997:647–74.

9. Sonmez K, Turkyilmaz Z, Boyacioglu M et al. Diffuse fibrous proliferation of tunica vaginalis associated with testicular infarction: a case report. J Pediatr Surg 2001;36:1057–8.

10. Elem B, Patil PS, Lambert TK. Giant fibrous pseudotumor of the testicular tunics in association with schistosoma haematobium infection. J Urol 1989;141:376–7.

11. Navai N, Yap RL, Gupta R, Fraser TG, Gonzalez CM. Inflammatory pseudotumor of the testis: a novel presentation of acute retroviral syndrome. Int J Urol 2005; 12: 424–6.

12. Olivia E, Young RH, .Paratesticular tumor like lesions.Semin Diag Pathol 2000;17:358.