

Paratesticular fibrous pseudotumor arising from tunica vaginalis

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ABSTRACT

Intrascrotal benign fibrous proliferations are uncommon and mostly arise from paratesticular region falling into the category of fibrous pseudotumor which is characterized by nodular growth composed of probably reactive proliferation of fibroblasts and inflammatory cells. Although benign, this often clinically mimics intrascrotal malignancy and usually remains undiagnosed preoperatively. Here, we report a case of paratesticular fibrous pseudotumor arising from testicular tunica vaginalis and involving epididymis, in a 32 year male presenting with huge left scrotal mass.

Keywords: Fibrous pseudotumor, intrascrotal mass, tunica vaginalis, epididymis.

The term "Fibrous pseudotumor" is generally accepted for reactive benign lesions of testicular tunics, although multiple names such as inflammatory pseudotumor, proliferative funiculitis, chronic proliferative periorchitis, fibrous mesothelioma and reactive periorchitis are assigned to this tumor.^{1,2} The tumor is very rare and only handful of cases have been reported.^{1,3} The tumor typically arises as painless scrotal masses that may be associated with a hydrocele or history of trauma or infection.³ In most of the cases the tumor involves tunica vaginalis, however, rarely tumor can involve tunica albuginea, epididymis and spermatic cord.¹ Clinically the tumor mimics malignancy which results in treatment by radical and often orchidectomy.² Tumor is often multinodular. Microscopically, tumor is acellular to hypocellular with bland spindle to stellate cells lying in myxoid or collagenous stroma with prominent vessels.⁴

CASE REPORT

This 32 year male complained of swelling in the left side of scrotum for 8 years and related it to a history of trauma 10 years back (two years before the swelling started). He also complained of on and off pain in the swelling. No history of significant weight loss given and his appetite was normal. On local examination there was a swelling of 15x8 cm in the left testis which was mobile, mildly tender. Swelling was hard and overlying scrotal skin was stretched but free from the tumor. General physical examination was unremarkable and none of the lymph nodes were palpable. Abdominal examination did not reveal any mass. Right testis, spermatic cord and scrotum were unremarkable. Ultrasonogram revealed normal size and smooth outline of bilateral testis. Extratesticular irregular mass, suggestive of epididymal granuloma was noted on left side (Fig. 1). Alpha fetoprotein and beta HCG were within normal range, however, lactate dehydrogenase (LDH) was elevated to 596.0 U/L. A left inguinal orchidectomy was performed and submitted for histopathological examination.

Pathological examination: Gross examination revealed an irregular firm to hard multinodular gray white growth

surrounding the testis from three sides (Fig. 2). The growth measured 11x5 cm. Testis was encased in the growth and measured 4X2.5 cm. Cut surface of growth showed multinodular fibrous tumor, gray white in color. Testis was spongy and brownish in color. Spermatic cord was unremarkable. Epididymis was not identified and was replaced by the growth. Growth was well demarcated from the testis by fibrous tissue. Multiple hematoxylin and eosin stained sections from representative areas showed testis with covering tunica vasculosa and tunica albuginea. A multinodular tumor arising from tunica vaginalis involving entire epididymis and surrounding the testis was seen. Tumor was composed of paucicellular hyalinized fibrous tissue (Fig. 3). Some areas showed delicate vasculature and foci of lymphocytic infiltration. Occasional benign fibroblasts are seen scattered within the tumor. Extensive examination did not reveal any features of malignancy. Testis showed markedly diminished spermatogenesis. Rete testis and spermatic cord including vas deferens were normal. With these findings a diagnosis of paratesticular fibrous pseudotumor arising from tunica vaginalis and involving epididymis was given.

Post operative period was uneventful except for small hematoma. After two years of follow up no recurrence was noted.

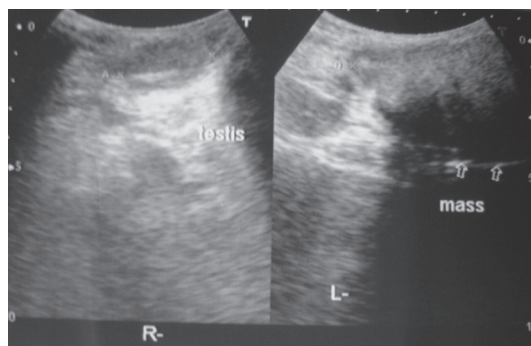


Fig. 1. Ultrasonogram revealed normal size and smooth outline of testis with an extratesticular irregular mass.

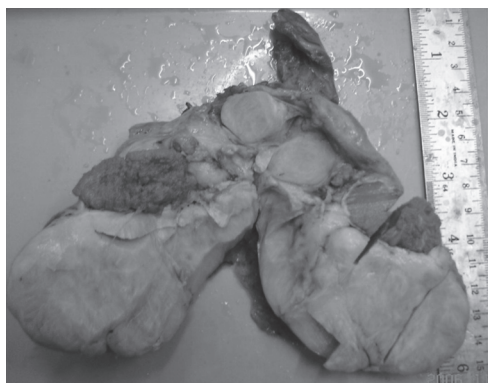


Fig. 2. A left inguinal orchidectomy specimen (bisected), an irregular firm to hard multinodular gray white growth (short arrows) surrounding the testis (long arrows) from three sides. Testis is encased in the growth. Growth was well demarcated from the testis by fibrous tissue. Spermatic cord is shown by bold arrow.

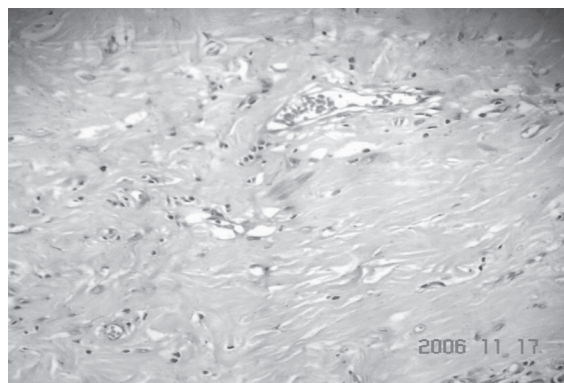


Fig. 3. Paratesticular fibrous pseudotumor: Tumor is composed of paucicellular hyalinized fibrous tissue. Some areas showed delicate vasculature and foci of lymphocytic infiltration. Occasional benign fibroblasts are seen scattered within the tumor. (H&E section, 20X10).

DISCUSSION

Paratesticular fibrous pseudotumor is an uncommon entity, recognized first in 1904 by Balloch.² Although rare, it is second most common benign paratesticular lesion after adenomatoid tumor.^{5,6} The tumor has a peak incidence in third decade of life but can occur at any age.^{5,7,8} Clinically the lesion mimics malignant process and frequently present as painless palpable intrascrotal mass,² however, in present case, patient complained of on and off pain. Discomfort secondary to the lesion has been reported in cases when the tumor involves tunica vaginalis, epididymis and spermatic cord.² Patient may give history of trauma, hydrocele or infection.^{2,3} In present case patient had complained of scrotal trauma two years before development of the tumor. The tumor most commonly arises from tunica vaginalis, with less than 15% arising from the tunica albuginea and spermatic cord.⁹⁻¹¹ In present case the tumor was arising from tunica vaginalis and involving and replacing epididymis. Ultrasonographic appearance of the tumor is widely variable, typically shows single or multiple solid paratesticular or tunica nodule or masses with variable echogenicity, with characteristics depending on the amount of fibrous and cellular tissue constituents, presence or absence of calcification, gross morphological feature and structures involved.¹² Grossly tumors are typically multinodular, whitish and hard as in present case,³ however, tumors can show diffuse fibrous proliferation encasing the testis and involving the tunica vaginalis.³ Microscopically tumor is often paucicellular fibroblastic and myofibroblastic proliferation of cells within a hyalinized collagenous stroma.^{3,4} A sparse chronic inflammatory cell infiltrate, calcification, ossification and myxoid changes can be seen.³ Histological differential diagnosis of this tumor includes solitary fibrous tumor, leiomyoma, neurofibroma, fibroma of the tunics and fibromatosis.³ These lesions were ruled out in present case histologically.

In most of cases of fibrous pseudotumor patient undergo surgery because of the presence of mass and the need to exclude malignancy. Orchidectomy is often performed because of difficulty in removal of the lesion separate from testis.³ Incision biopsy in these cases may not be

contributory because diagnosis is based on both gross and microscopic features; the latter feature may be common to many tumors. However, intraoperative frozen section may be helpful if both the surgeon and pathologist are aware of this entity and may prevent, in some cases, performance of radical orchidectomy.

Paratesticular fibrous pseudotumor is a benign tumor most often arises from tunica vaginalis of testis and can involve epididymis. Tumor is usually large multinodular and clinically mimics malignancy. Familiarity to this tumor can prevent surgeon from unnecessary radical surgery.

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Quality Assurance in Higher Education in Nepal

Before the establishment of the first national university in the country in 1959, higher education (HE) in Nepal was run with the affiliation to foreign (India) university. In 1971, the HE system in Nepal was radically restructured under the National Education System Plan (1971-76) with the aim of improving the quality in education system. But the HE quality objectives could not be achieved as expected. Unfortunately, the 10th plan (2002-2007) program targeted to establish quality assurance and accreditation (QAA) as and institutional system also could not be materialized.¹

Keeping in view of importance of quality education in professional subjects, various professional councils have been working to assure the quality education in respective fields by formulating and implementing the “minimum requirements” for particular course / degrees.

But, there is no such quality regulating body in the field of “liberal sciences”. The World Bank assisted 2nd higher education project (2007-2014), therefore, has focused in the QAA in HE in Nepal. Under this project, university grant commission (UGC) has taken “quality assurance initiative” in higher education in Nepal. Recently, UGC has constituted a “quality assurance and accreditation committee (QAAC)” involving all professional councils and experts. And a “technical committee (TC)” consisting of experts has also been formed under the QAAC.

Very recently, a team of UGC-QAAC-TC attended a two-day “interaction program” organized by National Assessment and Accreditation Council (NAAC) (an autonomous body of the UGC, India) at Bangalore, India on June 3-4, 2009. Chief-Editor Prof. Shiba K Rai (member of UGC-QAA-TC) attended the program.

Other members in the team were: Prof. Hridaya R Bajracharya, Dr. Kusum Shakya, Prof. Upendra B Pradhanang, Prof. Panna Thapa, Ms. Mana Rai and Ms. Sangeeta Luintel. UGC Member-Secretary Prof. Binod K Shrestha joined the team on second of the program.

The program was attended by nearly hundred participants (Vice-Chancellors, Deans, Principals and Professors) from different parts of India including NAAC officers and Nepali delegates. Three presentations made by the experts were followed by group works on reviewing of “self study report (SSR)” (self appraisal report) submitted by an affiliated college.

Most important outcome of attending this interactive meeting was an “exposure” of the of QAAC-TC members to the assessment and accreditation system of NAAC. The present grading system (cumulative grade point average, CGPA) was good system of assessing the university, autonomous institution or college/institution (constituent or affiliated) that grades the academic organizations into four grades, namely, Grade-A (Excellent), B (good), C (Average) and D (Bad).²

Nepali team also visited a local NAAC accredited college (affiliated) that has recently become a deemed university based on the accreditation by NAAC. A MoU was signed between UGC Nepal and NAAC India aiming at QA in higher education in Nepal. It is, therefore, hoped that collaboration help improve quality of higher education in Nepal and in turn, help build prosperous Nepal - the new Nepal.

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Interaction meeting chaired by NAAC Director Prof. Ranganath