Urology Case Reports 2 (2014) 134–136

Contents lists available at ScienceDirect

Urology Case Reports

journal homepage: www.elsevier.com/locate/eucr

Oncology

Fibrous Pseudotumor of the Tunica Vaginalis Associated With Hydrocele and Testicular Atrophy☆

Pande Made Wisnu Tirtayasa [a,b], Ponco Birowo [a,b,*], Agi Satria Putranto [c], Nur Rasyid [a,b]

[a] Division of Urology, Department of Surgery, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia
[b] Department of Urology, Cipto Mangunkusumo Hospital, Jakarta, Indonesia
[c] Department of Surgery, Cipto Mangunkusumo Hospital, Jakarta, Indonesia

ARTICLE INFO

Article history:
Received 24 April 2014
Accepted 6 May 2014

Keywords:
Fibrous pseudotumors
Testicular tunics
Paratesticular tissue

ABSTRACT

Fibrous pseudotumors of the testicular tunics and paratesticular tissue are uncommon lesions. They typically arise as painless scrotal masses that may be associated with hydrocele or history of surgery, trauma, or infection. Although benign, these lesions often clinically indicate malignancy and usually remain undiagnosed preoperatively. Here, we report on a 59-year-old man with fibrous pseudotumor of the tunica vaginalis associated with hydrocele and testicular atrophy.

Introduction

Fibrous pseudotumors are generally known as reactive benign lesions of testicular tunics.[1] These lesions are the second most common type of paratesticular tumors.[2] The tumor is very rare, and to date, only handful of cases have been reported.[1,3] The tumor typically arises as painless scrotal masses that may be associated with hydrocele or history of surgery, trauma, or infection.[1,2] In most of the cases, the tumor involves the tunica vaginalis.[3] Clinically, the tumor indicates malignancy and necessitates radical orchiectomy.[4] We present here a case of fibrous pseudotumor of the tunica vaginalis associated with hydrocele and testicular atrophy. To our knowledge, a similar case has never been reported before in Indonesia.

Case presentation

A 59-year-old man presented with a rapidly growing painless enlargement in right side of scrotum of 3-month duration. There was a surgical intervention performed 3 months previously because of right inguinalis herniation of intestines. There was no history suggestive of testicular trauma, orchitis, or torsion. Clinical examination revealed large, hard, nontender, nontransilluminant mass in the right scrotum. The abdomen was soft with no organomegaly or palpable masses, and inguinal region was unremarkable. At first, we thought that the mass was a recurrent inguinalis herniation of intestines because of previous hernia surgical intervention.

Magnetic resonance imaging examination revealed appearance of right inguinalis herniation of intestines. It showed herniation of intestines and omentum structure to inguinal canal with intrascrotal fluid collection (Fig. 1 ; 8.91 × 6.95 cm [axial]; 8.98 × 8.81 cm [coronal]). Right testicular region demonstrated possible compression or intervention between fluid collection and omentum. There was no indication of lymphadenopathy. Serum alpha-fetoprotein, beta human chorionic gonadotropin, and serum lactate dehydrogenase levels were within the normal limits.

Intraoperatively, no herniation of intestines was observed. However, a large solid testicular-like mass was detected. In view of clinical suspicion of malignancy, the mass was excised and a right high inguinal orchiectomy was performed. Cut section showed multinodular fibrous tumor and revealed the right testicle with an atrophied appearance encased by a fibrotic band of tissue (Fig. 2). Histologic microscopy showed thickened tunica vaginalis containing hyalinized collagenous stroma and chronic inflammatory infiltrate (Fig. 3). Partially atropic seminiferous tubule with thickened walled was seen. Final pathology was reported as fibrous pseudotumor associated with hydrocele and testicular atrophy. Postoperative period was uneventful. After a year of follow-up appointments no recurrence was noted.

* Corresponding author. Tel.: +62-21-315-2892; fax: +62-21-314-5592.
E-mail address: ponco.birowo@gmail.com (P. Birowo).

2214-4420/$ – see front matter © 2014 The Authors. Published by Elsevier Inc. All rights reserved.
http://dx.doi.org/10.1016/j.eucr.2014.05.004

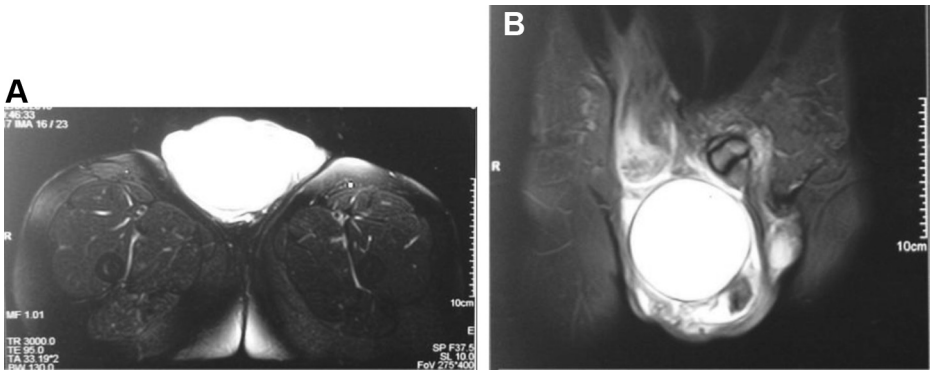

Figure 1. The magnetic resonance imaging examination revealed appearance of intrascrotal fluid collection, with the size of **(A)** 8.91 × 6.95 cm on axial section and **(B)** 8.98 × 8.81 cm on coronal section.

Discussion

Fibrous pseudotumors were first reported in 1904 by Balloch.[1] Many designations for these lesions have been considered synonyms for or variants of fibrous pseudotumors and include the following: chronic proliferative periorchitis, inflammatory pseudotumor, nodular and diffuse fibrous proliferation, proliferative funiculitis, fibromatous periorchitis, fibroma, benign fibrous paratesticular tumor, fibrous mesothelioma, pseudofibromatous periorchitis, nonspecific peritesticular fibrosis, and reactive periorchitis.[2,5] Although fibrous pseudotumors are uncommon, they are reported to be the second most common benign paratesticular lesions after adenomatoid tumors.[1-3,5]

Fibrous pseudotumors have a peak incidence in the third decade of life but can occur at any age.[1,4,5] These lesions may be of varying sizes and frequently present as a unilateral scrotal mass. Clinically, the lesion signifies a malignant process and frequently presents as a painless palpable intrascrotal mass.[3,5] The present case patient had undergone intestinal hernia surgery before the development of tumor, which was detected as a right side painless palpable intrascrotal mass. Approximately, 40% to 50% of cases are associated with a hydrocele, as in the present case, and 30% are associated with trauma or epididymo-orchitis.[1-5] The tumor most commonly arises from tunica vaginalis, with <15% arising from the tunica albuginea and spermatic cord.[1] In the present case, the tumor arose from tunica vaginalis.

In rare instances, fibrous pseudotumors are present as a diffuse fibrous proliferation that encases the testis and involves the tunics.[1] Microscopically, a sparse chronic inflammatory cell infiltrate, calcification, ossification, and myxoid changes can be observed.[2,5] Histologic differential diagnosis of this tumor includes solitary fibrous tumor, leiomyoma, neurofibroma, fibroma of the tunics, and fibromatosis.[1]

Most patients with fibrous pseudotumors are advised to undergo surgery because of the presence of a mass and the need to exclude a malignant process.[5] Orchiectomy may be necessary because of difficulty in removing the lesional tissue while preserving the testis.[4]

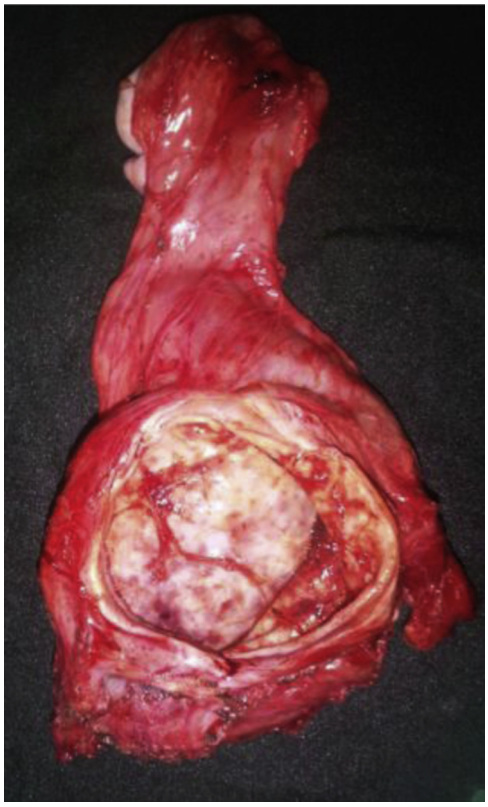

Figure 2. Cut section showed multinodular fibrous tumor and revealed the right testicle with atrophied appearance encased by a fibrotic band of tissue.

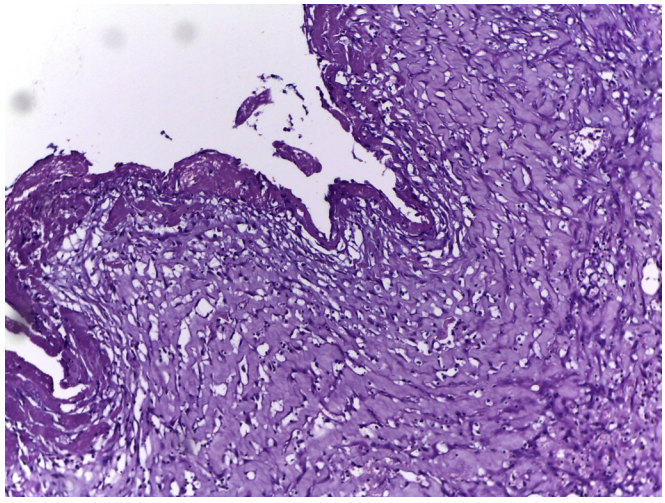

Figure 3. Histologic microscopy showed thickened tunica vaginalis containing hyalinized collagenous stroma and chronic inflammatory infiltrate.

Conclusion

Fibrous pseudotumor of the testicular tunics and paratesticular tissue is a very rare case. The tumor indicates malignancy which often results in treatment with radical orchiectomy. The present case showed similar findings to those presented in previous studies.

Conflict of interest

The authors declare that they have no conflicts of interest regarding the publication of this article.

References

1. Jha A, Baidya JL, Batajoo R. Paratesticular fibrous pseudotumor arising from tunica vaginalis. *Nepal Med Coll J*. 2009;11:145–146.
2. Memon AA, Soomro Q. Diffuse fibrous pseudotumor of paratesticular tissue. *J Surg Pak*. 2009;14:96–98.
3. Sadowski EA, Salomon CG, Wojcik EM, Albala D. Fibroma of the testicular tunics. *J Ultrasound Med*. 2001;20:1245–1248.
4. Mutreja D, Murali M, Arya A. Pseudotumors of paratesticular region mimicking malignancy. *Arch Int Surg*. 2013;3:70–72.
5. Seethala RR, Tirkes AT, Weinstein S, et al. Diffuse fibrous pseudotumor of the testicular tunics associated with an inflamed hydrocele. *Arch Pathol Lab Med*. 2003;127:742–744.