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Large Paratesticular Fibrous Pseudotumor Mimicking Testicular Malignancy: A Case Report

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Abstract **Case Report**

***Background*:** Paratesticular tumors are uncommon lesions arising from structures adjacent to the testis, including the epididymis, spermatic cord, and tunica vaginalis. Although most extratesticular masses are benign, they may clinically mimic testicular malignancy, leading to diagnostic uncertainty. ***Case Presentation*:** A 53-year-old man, an active smoker with a 30 pack-year history, presented with a progressively enlarging right scrotal mass evolving for more than 6 months. Scrotal ultrasonography showed a well-defined solid mass adjacent to the right testis measuring approximately 8 cm in diameter. Tumor markers were alpha-fetoprotein 12.56 IU/mL, beta-human chorionic gonadotropin <1.2 IU/mL, and lactate dehydrogenase 180 IU/L. Surgical exploration through an inguinal approach identified a large paratesticular mass originating from the tunica vaginalis. The lesion measured 9.5 x 8.5 x 6 cm, was completely excised while preserving the testis, and histopathology confirmed an inflammatory fibrous pseudotumor with negative surgical margins. No recurrence was observed after 6 months of follow-up. ***Conclusion*:** Paratesticular fibrous pseudotumor is a rare benign lesion that may mimic testicular malignancy. Complete excision with histopathological examination is essential for definitive diagnosis and may help avoid unnecessary orchiectomy.

Keywords: Paratesticular Fibrous Pseudotumor, Tunica Vaginalis, Scrotal Mass, Testicular Malignancy, Case report.

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Introduction

Paratesticular tumors arise from structures surrounding the testis, including the epididymis, spermatic cord, and tunica vaginalis. Although intratesticular masses are malignant in most cases, extratesticular lesions are more often benign; nevertheless, the distinction may remain difficult on clinical grounds alone [1-3]. Scrotal ultrasonography is the first-line imaging modality for evaluating scrotal pathology and is highly accurate for detecting, localizing, and characterizing scrotal masses [1].

Fibrous pseudotumor is a rare benign fibro-inflammatory lesion that most commonly originates from the tunica vaginalis. It is considered a reactive process rather than a true neoplasm and may be associated with chronic inflammatory conditions; some authors have also discussed a relationship with IgG4-related disease [2-4]. Because of its clinical and radiological overlap with testicular cancer, fibrous pseudotumor may lead to unnecessary radical orchiectomy if not recognized [2-4]. We report a case of a large paratesticular fibrous pseudotumor arising from the tunica vaginalis and initially suspected to be testicular malignancy.

Case Presentation

A 53-year-old man, an active smoker with a 30 pack-year history, presented to the Urology Department of the Military Hospital Oued Eddahab, Agadir, with a progressively enlarging right scrotal mass evolving for more than 6 months. He reported no systemic symptoms. Physical examination revealed a firm right scrotal mass closely related to the testis, making the exact site of origin difficult to determine clinically.

Scrotal ultrasonography revealed a well-defined solid mass adjacent to the right testis, measuring approximately 8 cm in diameter, suggestive of a paratesticular lesion; however, a testicular tumor could not be completely excluded. Laboratory investigations showed alpha-fetoprotein 12.56 IU/mL, beta-human

chorionic gonadotropin <1.2 IU/mL, and lactate dehydrogenase 180 IU/L.

Given the suspicion of testicular malignancy, surgical exploration through an inguinal approach was performed. Intraoperatively, a large paratesticular mass originating from the tunica vaginalis was identified (Figure 2). The lesion measured 9.5 x 8.5 x 6 cm and was completely excised while preserving the testis. Gross examination of the resected specimen is shown in Figure 3.

Histopathological examination demonstrated polymorphous inflammatory cells within collagenous fibrous tissue, consistent with inflammatory fibrous pseudotumor, with negative surgical margins (Figure 1). The postoperative course was uneventful, and the patient remained asymptomatic with no evidence of recurrence after 6 months of follow-up.

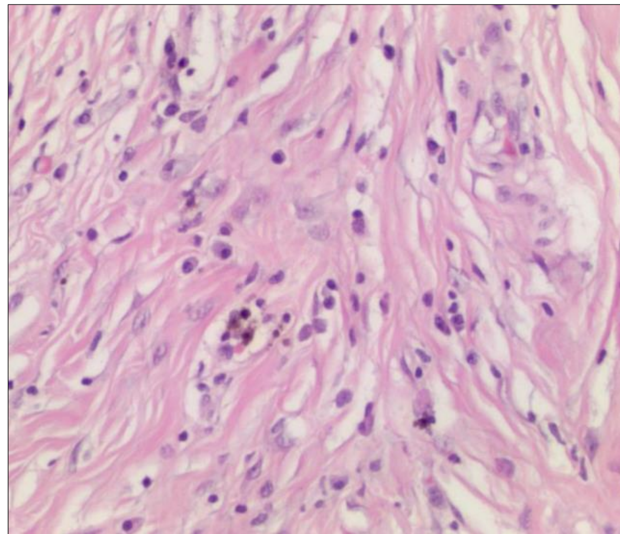

Figure 1: Histological section showing polymorphous inflammatory cells within collagenous fibrous tissue (H&E, x200)

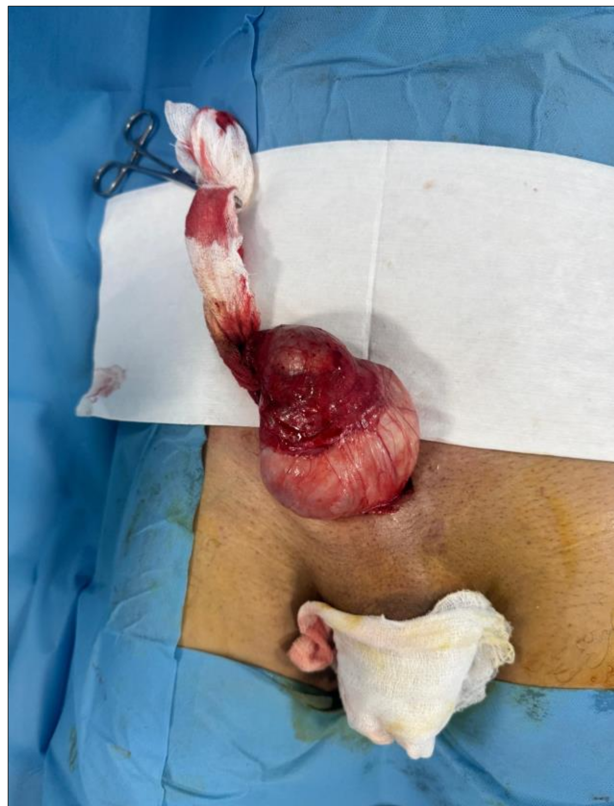

Figure 2: Intraoperative view showing the paratesticular mass arising from the tunica vaginalis

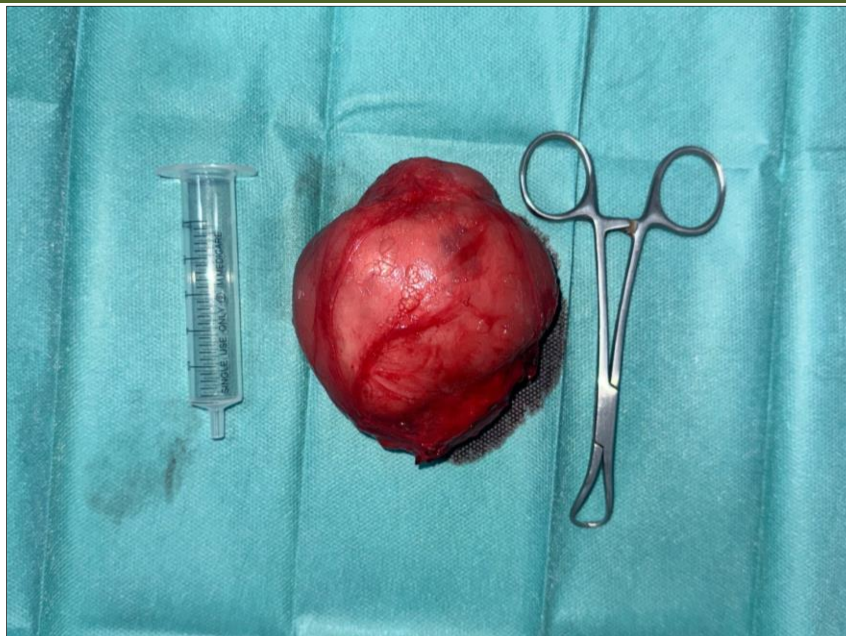

Figure 3: Gross operative specimen of the excised paratesticular tumor

Discussion

Paratesticular fibrous pseudotumor is an uncommon benign fibro-inflammatory lesion arising most frequently from the tunica vaginalis, but it may also involve the epididymis, spermatic cord, or tunica albuginea [2-4]. Recent literature continues to emphasize its rarity: Crestani *et al*., noted that only about 200 cases had been reported and that paratesticular fibrous pseudotumor accounts for approximately 6% of paratesticular masses [4]. In the largest recent clinical and ultrasound series, Yang *et al*., reported that the lesion predominantly affected middle-aged and older men and most often presented as a painless unilateral scrotal mass, which is consistent with the presentation in our patient [2].

Preoperative diagnosis remains challenging because imaging features can overlap with those of malignant disease. Conventional ultrasonography is the main imaging modality for the assessment of scrotal pathology [1]. Fibrous pseudotumor may appear as a well-defined solid extratesticular lesion or as multiple nodules associated with tunica vaginalis thickening and hydrocele [2]. When sonographic findings are indeterminate, MRI can serve as a useful problem-solving tool in the characterization of extratesticular masses [1-3]. However, as highlighted in recent imaging reviews, benign and malignant extratesticular lesions may still overlap radiologically, and careful clinicopathological correlation remains necessary [3].

Histopathology remains the diagnostic gold standard. Typical findings include dense collagenized fibrous stroma associated with fibroblastic proliferation and mixed inflammatory infiltrates, mainly lymphocytes and plasma cells [4]. Our histological findings of polymorphous inflammatory cells within collagenous fibrous tissue are in keeping with this pattern. The possible association between paratesticular fibrous pseudotumor and IgG4-related disease has been increasingly discussed, although this relationship remains incompletely defined and was not specifically evaluated in our case [4].

From a surgical standpoint, awareness of this entity is particularly important because it may enable testis-sparing surgery when the lesion is recognized as extratesticular. Current testicular cancer guidelines stress the importance of appropriate preoperative evaluation, including serum tumor markers and an inguinal surgical approach when malignancy is suspected [5]. In our patient, surgical exploration by the inguinal route allowed safe excision of the mass while preserving the testis. Similar favorable outcomes after complete excision, with very low recurrence rates, have also been reported in recent case reports and small series [2-6].

The main strength of the present case lies in the unusual size of the lesion and its close clinical resemblance to testicular malignancy. Large paratesticular fibrous pseudotumors arising from the tunica vaginalis remain uncommon and may closely mimic malignant testicular tumors both clinically and radiologically. This observation supports the need to include this benign entity in the differential diagnosis of paratesticular and apparently testicular masses.

Conclusion

Paratesticular fibrous pseudotumor is a rare benign lesion that may closely mimic testicular malignancy, particularly when it is large and arises from the tunica vaginalis. Although imaging and tumor

markers are useful in the preoperative work-up, definitive diagnosis relies on histopathological examination. Recognition of this entity may help avoid unnecessary orchiectomy and support testis-sparing surgery whenever feasible.

Patient Consent: Written informed consent was obtained from the patient for publication of this case report and the accompanying images.

Conflict of Interest: The authors declare no conflicts of interest.

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REFERENCES

1. Tsili AC, Bougia CK, Pappa O, Argyropoulou MI. Ultrasonography of the scrotum: Revisiting a classic technique. Eur J Radiol. 2021;145:110000. doi:10.1016/j.ejrad.2021.110000.
2. Yang J, Chen H, Yan H, Zhang Y, Liu J. Clinical and ultrasound features of fibrous pseudotumor of tunica vaginalis of the testis: eight cases and literature review. Front Oncol. 2024;14:1485723. doi:10.3389/fonc.2024.1485723.
3. Edo H, Yagi F, Mizuno M, Okada M, Hyoe E, Ozaki I, et al. Extratesticular masses focusing on MRI findings. Jpn J Radiol. 2024;42(10):1087-1099. doi:10.1007/s11604-024-01605-4.
4. Crestani A, Vassallo L, Amodeo A, Diminutto A, Miglioranza E, Di Gianfrancesco L, et al. Paratesticular fibrous pseudotumor with histological features of IgG4-related disease: two case reports and review of the literature. Gland Surg. 2023;12(3):426-431. doi:10.21037/gs-22-290.
5. Patrikidou A, Cumberbatch MGK, Ralla B, Day J, Albers P, Cathomas R, et al. European Association of Urology Guidelines on Testicular Cancer: 2023 Update. Eur Urol. 2023;84(3):289-301. doi:10.1016/j.eururo.2023.04.010.
6. Mogarrio IC, Jalles F, Knoblich M, Alves R. Paratesticular fibrous pseudotumor in a pediatric patient: a case report. Cureus. 2024;16(10):e71453. doi:10.7759/cureus.71453.