Pseudosarcomatous fibromyxoid tumor of the prostate revealed on suprapubic prostatectomy

Serdar Toksoz[1], Enis Kervancioglu[1], Alev Ok Atılgan[2], Sezgin Güvel[3]

[1]Department of Urology, Baskent University School of Medicine, Ankara, Turkey
[2]Department of Pathology, Baskent University School of Medicine, Ankara, Turkey
[3]Department of Urology, Baskent University School of Medicine, Adana, Turkey

KEY WORDS

inflammatory pseudotumor ◗ fibromyxoid pseudosarcomatous tumor ◗ prostate

ABSTRACT

We report a rare case of inflammatory pseudotumor of the prostate revealed on suprapubic prostatectomy. A 70-year-old man presented with nocturia, urgency and difficulty in voiding. The histopathological examination of the suprapubic adenomectomy specimen reported fibromyxoid pseudosarcomatous tumor (inflammatory prostatic pseudotumor). It is important to take this benign lesion under consideration to avoid unnecessary aggressive radical complementary treatments.

INTRODUCTION

Pseudosarcomatous fibromyxoid tumor of the prostate (PFMT) first reported by Hafiz et al. in 1984, is a benign fibroproliferative process that histologically resembles sarcoma [1]. Although these benign fibroproliferative processes of the prostate are unusual, it is important to recognize these lesions in order to avoid unnecessary radical procedures. Also the pathologist should use special immunohistochemical stains to verify that it is a benign fibroproliferative process. We present a case report in which the disease was diagnosed after open adenomectomy [2].

CASE REPORT

A 70-year-old man has nearly a 2-year history of lower urinary tract symptoms (LUTS) such as nocturia, urgency and difficulty in voiding. Digital rectal examination revealed an enlarged round soft prostate. The volume of post void urine was 220 mL. Due to a high level of prostate specific antigen (PSA), prostate biopsy was performed in another urology department. The result of biopsy had reported benign prostatic hyperplasia. The PSA level was 5.02 ng/mL. The measurement of the prostate volume with pelvic ultrasound was nearly 200 gr. Cystoscopy revealed a normal anterior urethra with a large protruding prostatic mass and normal bladder. Based on these findings, open adenomectomy (suprapubic prostatectomy) was performed nearly 2 years ago. The patient has been followed-up for two years and has no urinary symptoms in this period.

Microscopically the prostate tissue consisted of hyoid stroma with spindle cells proliferations. The inflammatory cells and hyalinization of vascular walls were determined. Small gland proliferations was observed in the limited periphery place and in this place the reaction with HMW CK and p63 antibodies was seen in the basal cells (Fig.1-4). Immunohistochemical staining was positive for smooth muscle actin in the spindle cells (Fig. 3). Staining in the spindle cells was negative for vimentin and CD 34. The overall clinical and pathological features are consistent with pseudosarcomatous fibromyxoid tumor of the prostate.

DISCUSSION

The pseudosarcomatous fibromyxoid tumor of the prostate (PFMT) is a rare lesion, which, despite its resemblance to sarcomas, follows a benign course without the need to perform radical retropubic prostatectomy [2].

Another lesion that has a somewhat similar histological appearance to PFMT is the postoperative spindle cell nodule (POSCN), which was first described by Proppe et al. [3]. POSCN

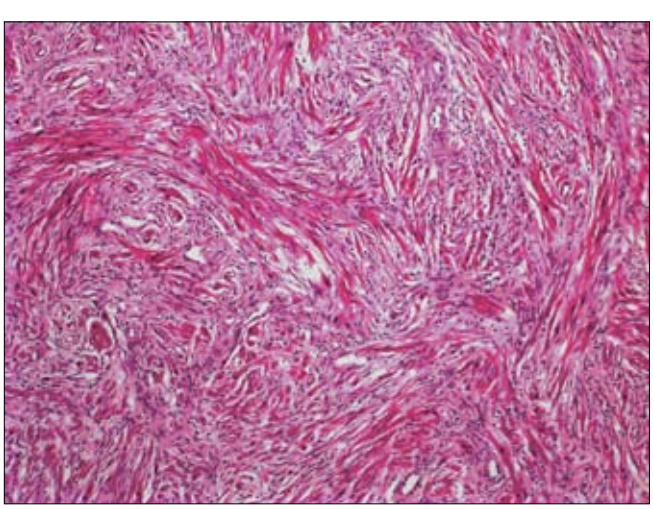

Fig. 1. Overview of the stromal structures (H&E staining original magnification x10).

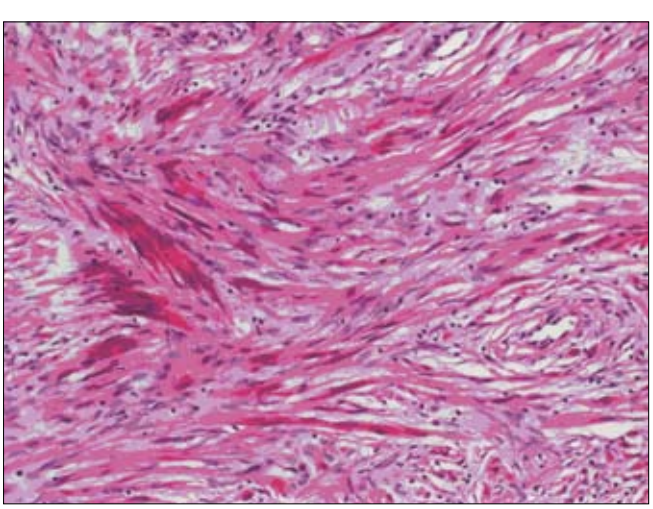

Fig. 2. Myxoid stroma with spindle cell proliferation (H&E staining original magnification x20).

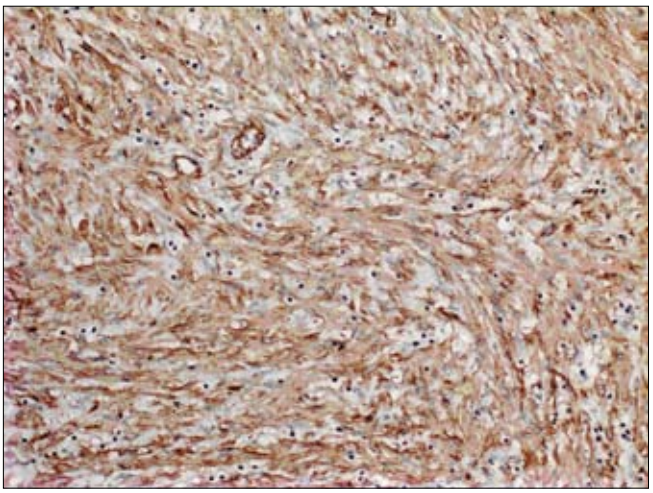

Fig. 3. Staining for smooth muscle actin (original magnification x10).

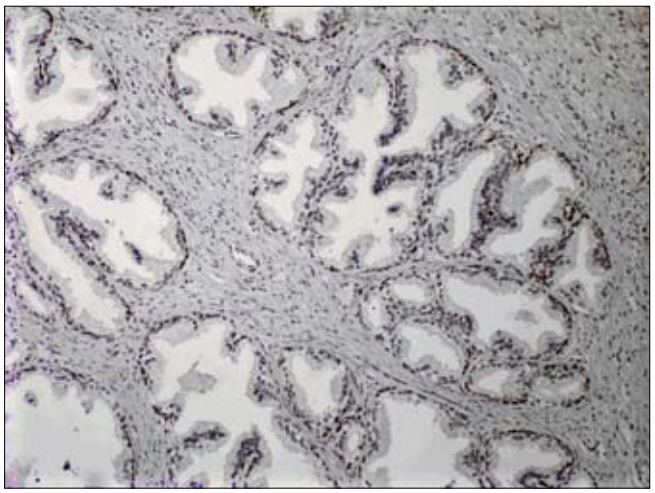

Fig. 4. Staining for p63 in the basal cell (original magnification x10).

originates from invasive trauma, mainly cystoscopies or transurethral prostate resection. Differentiation between POSCN and PFMT is based on the few mitoses in the latter and the history of operative trauma in the former [4].

PFMT is usually characterized by scattered stellate and spindle cells in an edematous, myxoid stroma with large number of capillaries and inflammatory cells. The nuclei of the stellate and spindle cells are hyperchromatic and pleomorphic; few, if any mitoses are seen and none are atypical [2].

Despite the rarity of PFMT, it is important for urologists and pathologists to recognize and be aware of its benign course in order to avoid unnecessary radical procedures.

REFERENCES

1. Hafız MA, Toker C, Sutula M: *An atypical fibromyxoid tumor of the prostate*. Cancer 1984; 54: 2500-2504.
2. Cespedes RD, Lynch SC, Grider DJ: *Pseudosarcomatous fibromyxoid tumor of the prostate. A case report with review of the literature*. Urol Int 1996; 57 (4): 249-251.
3. Proppe KH, Scully RE, Rosai J: *Postoperative spindle cell nodules of genitourinary tract resembling sarcomas. A report of eight cases*. Am J Surg Pathol 1984; 8: 101-108.
4. Jensen JB, Langkilde NC, Lundbeck F, Marcussen N: *Pseudosarcomatous fibromyxoid tumor of the prostate*. Scand J Urol Nephrol 2003; 37: 85-87.

Correspondence

Serdar Toksoz
Department of Urology
Baskent University School of Medicine
5. Sokak, No: 48, Bahcelievler, 06490
Ankara, Turkey
phone: +90 312 2122912
serdartoksoz@gmail.com