Case Report

# Prostatic Cyst Causing Severe Infravesical Obstruction in a Young Patient

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## INTRODUCTION

Prostatic cysts are rare entities, usually asymptomatic, and detected incidentally during transrectal or abdominal ultrasonography. Mostly, they originate from the posterior area of the prostate, such as the mullerian ducts and utricle, as an embryological remnant.[1] Symptomatic prostatic cysts usually present with recurrent urinary tract infections, chronic pelvic pain syndrome, infertility, or ejaculatory pain in addition to low semen volume, hematospermia, and painful testes.[2]

Very few cases have been reported in the English literature (PubMed/MEDLINE) related with symptomatic prostatic cysts. Herein, we report a prostatic cyst causing severe infravesical obstruction in a young patient, discuss its symptoms, diagnostic work-up, and management.

## CASE REPORT

A 25-year-old young healthy man presented to our outpatient clinic with infravesical obstructive symptoms lasted for 1 year. He did not have any history of previous urethral catheterization or urinary tract infection. Physical examination of the genitalia and external urethral meatus were normal. Digital rectal examination revealed a normal prostate. Urine microscopy was normal and culture was negative. International prostate symptom score (IPSS) was 22 and quality of life (QoL) score was 6.

Uroflowmetry showed a peak flow rate (Qmax) of 5 mL/sec with 265 mL urine volume (Figure 1). Abdominal ultrasonography showed a prostate of 22 mL and a 9.3 × 4.4 mm anechoic cyst located on the anterior surface of it bulging into the bladder (Figure 2). The urethra and prostatic lobes appeared normal on cystourethroscopy with increased bladder trabeculations. A 10 × 5 mm prostatic cyst originating from the left prostatic lobe obstructed the bladder neck (Figure 3). Transurethral resection (TUR) of the cyst was performed (Figure 3), which revealed benign prostatic tissues following histopathological evaluation.

On the 1st-month follow-up, he did not have any infravesical obstructive or lower urinary tract symptoms (LUTS). Uroflowmetry demonstrated a Qmax of 11 mL/sec with 428 mL of voided urine volume. His IPSS was 9 and QoL was 6.

## DISCUSSION

Prostatic cysts have been reported to exist in 5% of men with LUTS.[2]

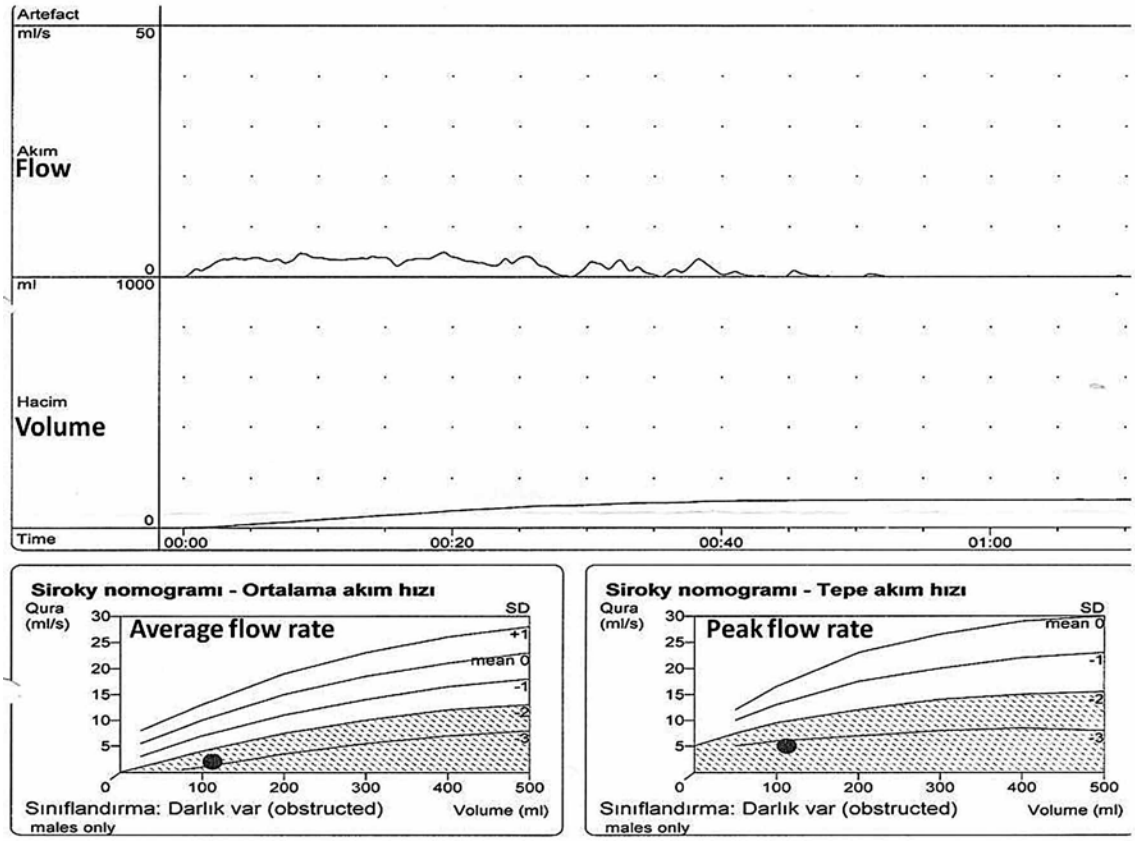


**Figure 1.** Pre-operative uroflowmetry of the patient showing an obstructive pattern, peak flow rate of 5 mL/sec, and voided urine volume of 265 mL.


**Figure 2.** Appearance of the prostatic cyst on abdominal ultrasonography.

**Figure 3.** Cystoscopic appearance of the cyst.

Cysts located in the midline of the prostate are mullerian duct or utricular cysts.[3] Mullerian duct cysts may extend over the base of the prostate forming an obvious projection into the bladder.[4] On the other hand, the ejaculatory ducts could open into the lateral wall of the utricular cysts; therefore, sperm could be found in the cavity.[5]

Anterior location of the prostatic cyst is very rare. Prostatic cysts are commonly located on the posterior surface of the prostate, which might suggest that these cysts could be originated from the prostatic capsule.[6]

Symptoms related to prostatic cysts have been reported to be of irritative and/or obstructive LUTS, decreased ejaculate volume, painful ejaculation, and infertility.[6] A medially located prostatic cyst was suggested to present with prostatitis-like symptoms.[2] In most studies, no relationship between prostatic cysts and serum level of prostate-specific antigen was reported.[7] Our patient had only infravesical obstructive symptoms with obstructive uroflowmetry findings (Figure 1).

Diagnosis can be made through medical history, physical examination, urine analysis, transrectal ultrasonography, uroflowmetry, ultrasonography, cystoscopy, computed tomography scan, and magnetic resonance imaging.[7-9] We used most of these diagnostic work-up in our patient.

Treatment of prostatic cysts include TUR, endoscopic marsupialization, endoscopic urethrotomy and incision, transrectal ultrasound-guided drainage, and open surgery.[7] Although anterior prostatic cysts are commonly non-obstructive,[1] our patient presented mainly with obstructive symptoms. Therefore, we performed only TUR of the cyst and on the 1st-month of follow-up, our patient did not have any obstructive LUTS.

Retrograde ejaculation might occur following TUR of the prostate; however, aspiration of the cyst would be a less invasive procedure and would lessen the risk of retrograde ejaculation.[10] Since we performed resection of the prostatic cyst only, our patient did not experience any retrograde ejaculation postoperatively. Particularly in young patients, transrectal ultrasound-guided aspiration of the cyst might also be performed when possible.

In conclusion, symptomatic prostatic cysts are rarely seen lesions and patients might present to the urology departments with infravesical obstructive symptoms. Therefore, we should consider prostatic cysts particularly in young men with obstructive LUTS. Management of the cyst with TUR seems to be a minimally invasive approach with successful and satisfactory outcomes.

## CONFLICT OF INTEREST

None declared.

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