



Acute Urinary Retention in an Old Male Caused By a Prostatic Urethral Polyp

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Acute urinary retention (AUR) is a common urological emergency characterized by a sudden inability to pass urine. In this manuscript, a 58-year-old male with the history of AUR caused by a prostatic urethral polyp, which is a rare cause of AUR in elderly, was presented. In this patient, polyp resulted in complete urethral obstruction with a mechanism similar to that of posterior urethral valves and transurethral resection of prostate and this polyp improved the infravesical obstruction symptoms completely and rapidly.

Key Words: Acute urinary retention, Prostatic urethral polyp, Posterior urethral valve, Transurethral resection, Cystoscopy.

Yaşlı Bir Erkekde Prostatik Üretral Polipe Bağlı Gelişen Akut İdrar Retansiyonu

Akut idrar retansiyonu işemenin ani ortadan kalkması ile karakterize bir ürolojik acildir. Bu yazıda, akut idrar retansiyonunun yaşlı erkeklerde nadir nedenlerinden biri olan prostatik üretral polipe bağlı olarak 58 yaşında bir erkekte gelişen retansiyon durumu sunulmuştur. Bu hastada polip posterior üretral valvlerinkine benzer bir mekanizmayla tam üretral obstrüksiyona neden olmuş ve prostatın ve polipin transüretral rezeksiyonu infravezikal obstrüksiyon semptomlarını tam olarak ve hızlı biçimde düzeltmiştir.

Anahtar Kelimeler: Akut idrar retansiyonu, Prostatik üretral polip, Posterior üretral valv, Transüretral rezeksiyon, Sistoskopi.

Acute urinary retention (AUR) is a common urological emergency characterized by a sudden inability to pass urine, and invariably but not always associated with lower abdominal pain; painless AUR is rare and is usually associated with central nervous system pathology.^{1, 2} The immediate management of this condition varies among different institutions, but usually involves inserting either a suprapubic or urethral catheter, followed by medical therapy, a subsequent trial without catheter, and treatment of the provoking etiology. It has many etiologies, including obstructive, neurogenic, pharmacologic, and extraurinary causes. Among these, the most important ones for old males are of the lesions resulting in the obstruction of bladder neck and urethra, such as benign prostate hyperplasia, which is most commonly seen, and urethral pathologies (strictures). For the emergency physician, the key lies in recognizing and treating its underlying cause. Neurologic and pharmacologic causes need to be considered in all patients. Urinary incontinence that is not caused by a neurologic emergency can be referred for further outpatient evaluation. In this report, an old male with a stalked polypoid lesion of prostatic urethra, which was diagnosed incidentally in cystoscopy examination and caused to complete obstruction with a mechanism similar to that of posterior urethral valves, has been presented as a rare cause of acute urinary obstruction.

CASE REPORT

A 58-year-old male presented with infravesical obstruction symptoms (dysuria, frequency, nocturia, hesitancy, loss of force and decrease of caliber of the stream, sense of residual urine) lasting for long-term period. He had a history of acute urinary retention belonging to 1 month before. At the time of presentation, his IPSS (international prostate symptom score) was 18 (moderate obstruction). He had undergone gastric operation for ulcer in 1977, appendectomy in 1997 and lumbar disk operation in 2000. Digital rectal examination revealed grade 1 benign

prostate enlargement. Urine and serum biochemistry analyses were normal. No bacterial growth was established in urine culture. Serum free and total PSA values were 2.30 and 0.59 ng/ml, respectively. Sonographically bilateral kidneys, ureters and bladder were normal, prostate volume was approximately 32 cc and residual urine was approximately 80 cc. An uroflowmetry examination revealed 19 mL/s of maximum flow rate and 7 mL/s of average flow rate in 449 cc of voided volume. Intravenous pyelography was assessed as normal. With these findings, we planned an urethroscopy examination under spinal anesthesia. Cystoscopy defined normal distal urethra, minimally-moderately enlarged prostate lobes and normal bladder appearance. Interestingly, a white color polypoid mass approximately 1-2 cm in size, with free-moveable proximal end (which was proved by hooking it with resectoscope loop in order to distinguish it from urethral folding), extending from posterior edge of verumontanum to the bladder neck, and causing to the complete obstruction of posterior urethra during the outflow of the serum from the bladder into the urethra with the maneuver of suprapubic compression, as in congenital posterior urethral valves, was determined incidentally (figure). This lesion and approximately 30 grams of prostate tissue were resected transurethrally. Pathological examination of resected specimens defined minimal nonspecific chronic inflammation in polypoid lesion and nodular prostate hyperplasia. Patient was discharge home at postoperative day 3 with no problem. In postoperative 3 month control, normal uroflowmetric parameters with normal pattern and complete emptying of the bladder were determined.

DISCUSSION

AUR is an important problem of aging males. It has an increasing prevalence with the age. Ten year cumulative incidence is estimated as 4% to 73%.³ The prevalence rates of AUR vary from 0.004 person-years to 0.015 and 0.13, depending on the patient group studied.¹ In the Olmsted county study of the natural history of BPH performed in Minnesota, USA, the cumulative incidence of AUR (the proportion of individuals who develop the condition over a certain period) increased with age.⁴ In this study, AUR in men less than 60 years old, as in our patient, was rare. However, in the older age groups the risk increased with age. Men aged 70-79 years had a 1 in 10 chance of developing AUR in the subsequent five years. The risk for men in their 80s was nearly 1 in 3.

Figure. Cystoscopic appearance of prostatic urethral polyp extending from verumontanum to the bladder neck.



Among the different causes of AUR published in the literature, polypoid lesions of prostatic urethra have been rarely reported in adults.^{5, 6} Moreover, the ages of reported cases are lower than present patient. In the present case, it is not possible to determine definitely whether the cause of AUR was the presence of prostatic enlargement or concomitant prostatic urethral polyp. However, cystoscopic appearances of prostate lobes and polyp led us to conclude that AUR resulted more probable from the valve-like movement of the polyp. Although gross appearance of it was very distinct from the congenital posterior urethral valves, prostatic urethral polyp in our patient had possible caused to AUR by acting like a true valve. The normal appearance of patient's urinary system and bladder on imaging studies and cystoscopy, normal values of serum urea and creatinine, age of presentation, and pathologic examination results suggested us that this polyp was not congenital but was probable an acquired lesion. Although the cause of urethral polyps has been thought to be a developmental error in the invagination process of the submucous glandular material of the inner zone of the prostate,⁷ inflammatory processes probably caused by previous urethral catheterizations performed in patient's different operations or by urinary infections might be the cause of the prostatic polyp development in our patient. This case puts forward the fact that if an old patient presented with AUR does not have significant obstruction proven by IPSS and uroflowmetric studies, a prostatic urethral polyp, although rare, must be taken into consideration as a cause of AUR.

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