Male Lower Urinary Tract Symptoms

Osteitis Pubis After TURP: A Rare Complication Difficult to Recognize

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\textbf{Abstract}
TURP is a widespread urologic procedure that is performed by many urologists. This report describes a rare complication that causes serious morbidity because it is not recognized in time. This is also the first report of a prostatosymphyseal fistula treated without major surgery. Eventually diagnosis is made by an MRI 5 months after surgery. Decompressive surgery was necessary to treat pubic osteitis with invalidating pain. Culture results revealed \textit{Escherichia coli} but eventually the diagnosis was made by fistulography. Treatment consisted of bladder drainage and long-term antibiotic treatment and these could eventually heal the fistula.

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\textbf{Case presentation}
A 62 year old men, with a history of psoriatic arthritis for which he took leflunomide and methotrexate, underwent a transurethral resection of the prostate in December 2013 for benign prostate enlargement. After the procedure he had progressive pain in his left groin which made him limping. He also complained of urgency with miction every 20 minutes and nycturia each 2 hours. Several anticholinergic drugs (mirabegron, fesoterodine) were tried without result.

\textbf{Diagnosis}
His main concern was a disabling pain in the left groin for which he had several orthopedic evaluations in different hospitals. Several imaging studies were performed and eventually 5 months postoperatively MRI showed inflammation of the left iliopectineal branch, a radiologic sign of pubic osteitis. The orthopedic surgeon planned a decompression and bone biopsy through suprapubic incision, resulting in immediate pain relief. He developed fever, refractory to intravenously started antibiotics. The culture of the bone biopsy revealed an \textit{Escherichia coli}, a common uropathogen. Antibiotics were changed accordingly to the antibiogram but fever persisted. The infected wound drained clear liquid, which was analyzed for culture and creatinine. We also performed a fistulography with contrast inserted through a drainage catheter in the suprapubic wound (Fig. 1).

Contrast was seen in the decompression tract and in the bladder. The analysis of the wound liquid showed a high creatinine, another proof of the prostatic fistula.

\textbf{Therapy}
Our initial treatment was bladder catheterization and drainage of the suprapubic wound. This treatment in combination with the antibiotics kept our patient free of fever. After a few days we performed a cystoscopy, which showed an edematic mucosa at the anterior side of the urethra prostatica at the base of the prostate. We suspected a hint of the os pubis lying under necrotic tissue. The bladder was intact. The drainage of the suprapubic wound remained important the first weeks. Leflunomide and methotrexate were stopped in consultation with his treating rheumatologist because these immune suppressants can adversely affect healing. Cystography 4 weeks after treatment start showed no leakage (Fig. 2). Cystoscopy illustrated good healing of the mucosa near the fistula, only a small pinhole remained. After 5 weeks drainage suddenly became significantly less. Therefore the suprapubic drainage was removed. A few weeks after removal of the suprapubic drainage he developed more prominent irritative symptoms. He was treated with several antibiotics according to urine cultures. Bladder catheter was eventually removed at 9 weeks after diagnosis.

\textbf{Discussion}
A fistula between prostate or bladder and symphysis pubis is a very rare complication after TUR prostate. It has only been described in a few case reports published in the nineties.\textsuperscript{1,2}

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Posterior fistula or rectourethral fistula is more known but also very rare after TURP. In the reports the initial treatment were conservative measures like transurethral catheterization but eventually surgery was needed because the bone fistula persisted. In one report they performed surgery 8 weeks after TURP, they performed a median laparotomy and did an omental interposition for a larger defect in the roof of the prostatic urethra. In the older report they performed surgery after 3 months, they did a retropubic fistulectomy with also an omental interposition.

There was a window of a few months between the TURP and the diagnosis of osteitis and eventually prostatosympyseal fistula. Different explanations were given for the orthopedic and urologic symptoms but were not linked to one another. Furthermore, this patient was already treated for psoriatic arthritis.

The diagnosis of osteitis came apparent on MRI. In this case the decompression surgery was the key for his recovery from the disabling pain. The underlying cause of the osteitis symphysis was the prostatic fistula after TURP. This is the first report to describe the fistula can heal with conservative measures like transurethral catheterization and prolonged antibiotics. Due to the rareness of the complication time of diagnosis was delayed. With this case report we want to bring attention to this rare entity.

**Conflict of interest**

There is no conflict of interest to declare.

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