Olgu / Case

Paraplejik erkek hastada dev kazanılmış üretral divertikül ve rekürren ürolityazis: Olgu sunumu ve literatürün incelenmesi

Acquired giant urethral diverticulum and recurrent urolithiasis in a male paraplegic patient: a case report and review of literature

Selçuk Sarıkaya, Çağrı Şenocak, Ersin Atabey, Murat Yıldırım, Ömer Faruk Bozkurt

Keçiören Eğitim ve Araştırma Hastanesi, Üroloji Kliniği, Ankara, Türkiye

Geliş tarihi (Submitted): 18.05.2015
Kabul tarihi (Accepted): 17.08.2015

Yazışma / Correspondence
Dr. Selçuk Sarıkaya
Keçiören Eğitim ve Araştırma Hastanesi Üroloji Kliniği,
Ankara, Türkiye
Tel: +90 531 627 4819
E-mail:drselcuksarikaya@hotmail.com

Özet

Üretral divertikül nadir görülen bir patolojik durumdur. Kırk yaşında erkek hasta kliniğimize sol flank ağrı, dizüri, sık idrara çıkma, tıkanma semptomları ve idrarı tam boşaltamama hissi nedeniyle başvurdu. Hastada parapleji ve trafik kazası sonrası gelişen beyin kanaması öyküsü mevcuttu. İntravenöz pyelografide sol staghorn böbrek taşı gözlendi. Hastaya sol perkütan nefrolitotomi operasyonu planlandı. Öncesinde yapılan sistoskopide hastada üretral divertikül olduğu gözlendi. Üretrografide 8 cm çaplı üretral divertikül izlendi. Divertiküle yönelik olarak divertikülektomi ve primer tamir operasyonu planlandı.

Tanı ve tedavi yönteminin seçimi özellikle semptomatik divertikül için önemlidir.

Anahtar Kelimeler: Kazanılmış, parapleji, staghorn, üretral divertikül, urolitiyazis

Abstract

Urethral diverticulum is a rare pathologic entity. A 40 year-old male patient admitted to our clinic with left flank pain, dysuria, frequency, obstructive symptoms and sensation of incomplete emptying of urine. He was paraplegic and had a history of cerebral hemorrhage arising after an automobile accident. IVU(Intravenous urography) revealed staghorn left kidney stone. Left percutaneous nephrolitotomy was planned. Prior to cystoscopy, a urehtral diverticulum was diagnosed. Urethrography revealed a diverticulum 8 cm in diameter. Open diverticulectomy and primary repair were performed. Diagnosis and treatment methods are important especially for treating symptomatic urethral diverticula.

Keywords: Acquired, paraplegia, staghorn, urethral diverticulum, urolithiasis

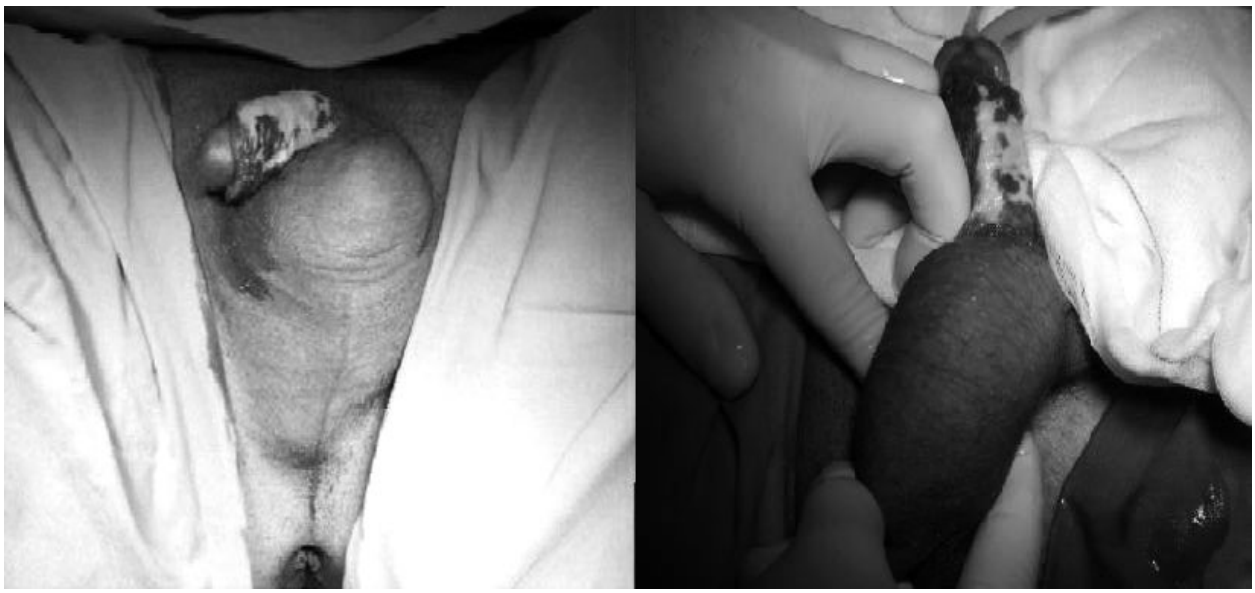

Figure 1: Physical examination view

Introduction

Urethral diverticulum is a rare pathologic entity with the incidence of 1-6%.[1,2] It can be divided as congenital and acquired. [3,4] There are some risk factors for acquired type like infection,trauma and obstruction. [4] Medical history and physical examination are very important for the diagnosis and also opacification and cystoscopy can be used. [5] Diverticulum may be seen in anterior and posterior parts of urethra. Anterior type is a common cause of obstruction in especially pediatric population. [6] Also anterior type is mostly seen in peno-scrotal junction. [1] Frequency, dysuria, urgency, obstructive symptoms, sensation of incomplete emptying of urine and postvoid dribbling are the main complaints [2,7,8,9] Micturation cystourethrography(MCUG), urethrography and magnetic resonance imaging are some of radiologic techniques that can be used for the diagnosis. [9] Open diverticulectomy, urethroplasty and endoscopic techniques are the main treatment methods for urethral diverticulum. [1,4,9,10] In this case we present a male paraplegic patient with a history of recurrent urolithiasis and anterior urethral diverticulum.

Case Report

A 40 year-old male patient admitted to our clinic with left flank pain, dysuria, frequency, obstructive symptoms and sensation of incomplete emptying of urine. The patient was paraplegic and had a history of cerebral hemorrhage arised after an automobile accident. Also he had a history of endoscopic cystolithotomy for bladder stone and right percutaneous nephrolithotomy for right kidney stone. Physical examination revealed a serious swelling in anterior part of scrotum(Figure 1) and on compression the urine was dribbling out of urethra. The patient was previously diagnosed as neurogenic bladder syndrome and was using intermittent catheterization 4 times a day.

Urinalysis showed pyuria but no microbial isolation from the urine culture. Ultrasonography indicated a staghorn left kidney stone. IVU revealed staghorn type left kidney stone. Left percutaneous nephrolitotomy was planned and prior to this, a cystoscopy was performed for the insertion of ureteral catheter. A urehtral diverticulum was detected in urethra. Urethrography that was performed on postoperative 2nd month revealed a urethral diverticulum 8 cm in diameter. An open diverticulectomy and primary repair was performed. Eight cm-diameter urethral diverticulum was excised (Figure 2). Urethral catheter and drain were removed on postoperative 5th day and the patient was discharged on the next day No surgical complication was detected on routine follow-up.

Discussion

Urethral diverticulum in males is more rare than females. Most of the male diverticula are acquired.[1] And usually male diverticula are asymptomatic. [4] A well-taken history and physical examination is so important

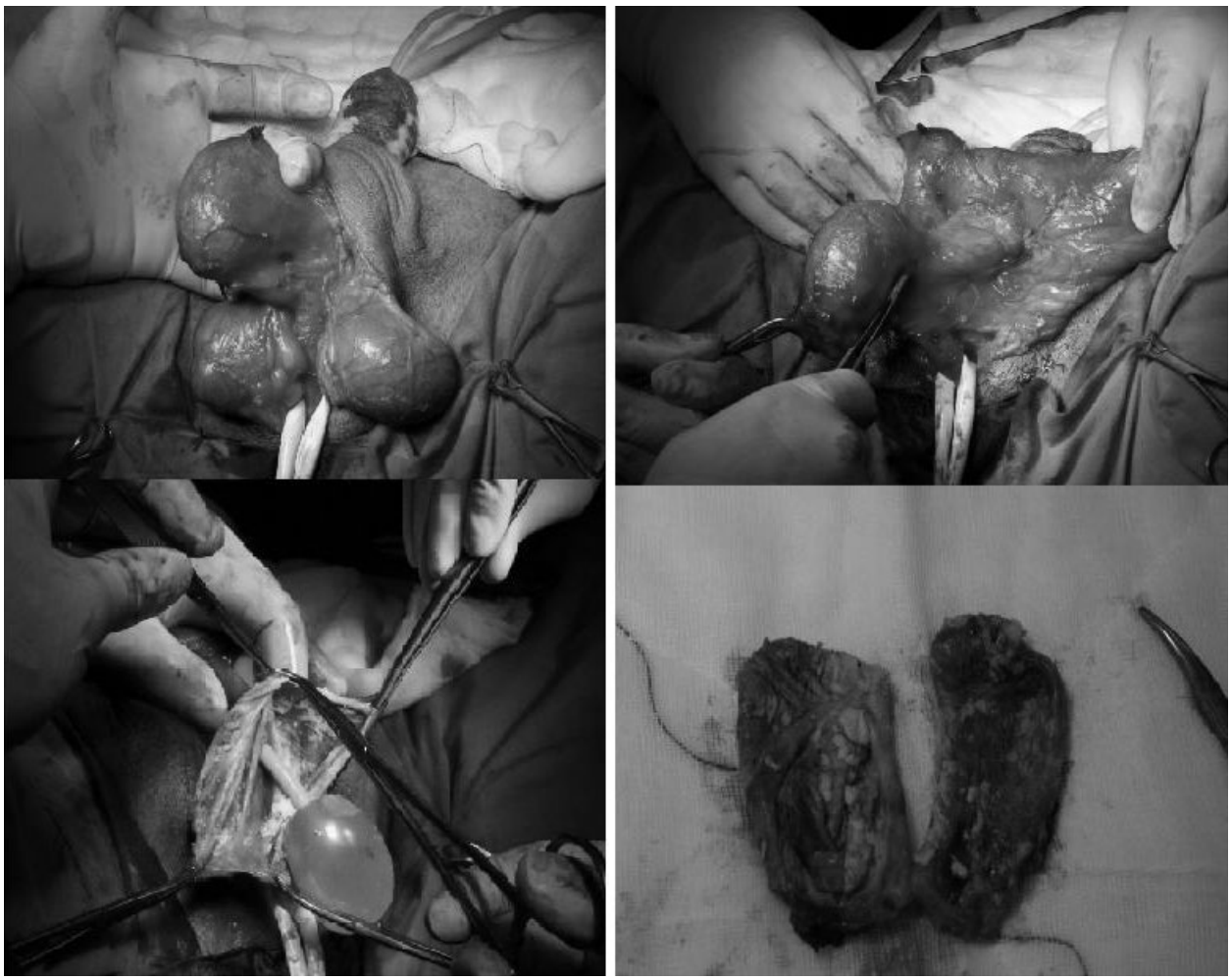

Figure 2: Excised urethral diverticulum

for the diagnosis of symptomatic diverticula. Huge male diverticula especially anterior types may present as scrotal abscess or inguinal hernia. [6,9] Differential diagnosis is important as it may be confused with anterior urethral valve and dilated Cowper's gland ducts. [10] MCUG or urethrography are usually necessary for the diagnosis. [10] Urethral diverticula may be caused by the elevated urethral pressure due to the blockage of periurethral galnds or the regularly used condom sheats.[1,11] These reasons may also be a predisposing factor for calculus formation. Also in paraplegic patients calcium and other minerals tend tor ise due to the irregular bowel movements. This condition causes stone formation in paraplegic patients. Chan et al. [9] reported a case with calculi in diverticulum. The diverticula may be treated with endoscopic or open approaches. And also some cases may be managed nonoperatively especially the asymptomatic diverticula. But in our case, we performed open diverticulectomy and detected no complication on postoperative period. The diagnosis and choice of treatment method is very important especially for symptomatic urethral diverticula. There are nonoperative or operative approaches and several operative techniques that can be used for treatment. But the techniques and approaches must be carefully selected by considering the patient's status.

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