

Development of Unilateral Thigh Hematoma and Abscess Formation After Transobturator Midurethral Sling Operation: Case Report

Transobturator Midurethral Sling Operasyonu Sonrası Gelişen Unilateral Uyluk Hematom ve Apsesi

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ABSTRACT This report describes the case with a very early onset of cellulitis due to hematoma after the transobturator tape placement for stress urinary incontinence. A 35-year-old woman underwent a transobturator tape operation for stress urinary incontinence. Twelve hours after the operation, she complained of high fever and an erythematous and painful area in the medial region of her right thigh. White blood cell count, erythrocyte sedimentation rate, and C-reactive protein levels were elevated. Infection did not resolve despite piperacillin/tazobactam administration. Magnetic resonance imaging demonstrated an abscess formation in the adductor region of the thigh. The drainage of the abscess was performed. The symptoms of the patient resolved after the drainage. She was discharged 20 days after the operation. Although the transobturator midurethral sling operation is a minimally invasive surgical procedure, clinicians must be very careful about the rare but serious complications of the procedure. We recommend a very close follow-up of these patients in terms of bleeding from the obturator vasculature during the early postoperative period.

Key Words: Urinary incontinence, stress; hematoma; thigh; suburethral slings

ÖZET Bu yazıda stress üriner inkontinansına yönelik transobturator bant replasmanı sonrası hematoma bağlı çok erken dönemde selülit gelişen bir olgu tanımlanmaktadır. Otuz beş yaşında bir kadında stress üriner inkontinans için transobturator bant replasmanı uygulandı. Hasta operasyondan 12 saat sonra sağ uyluğunun mediyalinde eritemli ve ağrılı bir alanın ortaya çıkması ve yüksek ateş yakınması bildirdi. Beyaz küre, eritrosit sedimentasyon hızı, C-reaktif protein düzeyleri yükseldi. Enfeksiyon bulguları piperasilin/tazobaktam verilmesine karşılık gerilemedi. Manyetik rezonans görüntülemeye sağ uyluk addüktör bölgesinde apse formasyonu olduğu görüldü. Apsenin drenajı yapıldı. Apsenin drenajı sonrası hastanın semptomları geriledi. Operasyondan 20 gün sonra hasta taburcu edildi. Transobturator midurethral sling operasyonu küçük bir cerrahi girişim olsa da klinisyenler bu durumda da nadir ama ciddi komplikasyonlar gelişebilme tehlikesi yönünden dikkatli olmalıdırlar. Biz burada erken postoperatif dönemde obturator damarlarından kanama riski yönünden çok yakından izlemi önermekteyiz.

Anahtar Kelimeler: Üriner inkontinans, stres; hematoma; uyluk; subüretral askılar

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Midurethral slings have been widely used for the management of stress urinary incontinence (SUI). In surgery, the obturator foramen approach is preferred over retropubic approach to decrease the risk of bladder, digestive system or vascular injuries. Although the potential advantage of the procedure is avoidance from the retro-pubic space, it may cause a variety of other complications like obturator hematoma, obturator cellulitis and abscess in adductor muscles.

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Additionally, unusually high incidence of vaginal erosion rates can be seen when compared to transvaginal tape (TVT). To date, there have been anecdotal reports related to pelvic and perineal hematoma and/or abscess after transobturator tape (TOT) procedures. In this case report, we present a case of thigh hematoma and cellulitis which progressed very rapidly after the TOT procedure.

CASE REPORT

A 35-year-old parous woman had a transobturator tape procedure under epidural anesthesia due to urodynamically confirmed stress urinary incontinence. The transobturator tape (Unitape t-plus; Promedon, Pgue Industrial Ferreyra, Cba, Argentina) was inserted through the obturator foramina, from outside to inside. The patient was administered 1 g cephazolin one hour prior to surgery as surgical antimicrobial prophylaxis.

On preoperative evaluation, she had no underlying diseases including immunosuppressive diseases, AIDS and diabetes mellitus.

Twelve hours after the operation, she developed an erythematous and painful area on the medial aspect of her right thigh. This was initially diagnosed as an 'allergic rash' by a consultant dermatologist, however, later on it was recognized that it was obviously an area of hematoma and cellulitis spreading to the surrounding tissues. The white blood cell count, erythrocyte sedimentation rate and C-reactive protein levels were 10 500/mL, 29 mm/hr and 14.89 mg/L, respectively. The vital signs were stable and the body temperature was 38.1°C. An empirical broad-spectrum antibiotic (Piperacillin/tazobactam 4.5 g IV q 8h) was started. Fever resolved after administration of piperacillin/tazobactam. The inflammatory markers and erythema decreased partially, representing an incomplete response to the therapy. Infectious diseases specialist was reconsulted, however a change in the antibiotic therapy was not recommended. On the postoperative ninth day, a painful abscess developed on the medial aspect of the thigh and appeared to be contained by the muscle

attachments of the adductors of the thigh, with the base of the triangle along the medial aspect of the femur. Magnetic resonance imaging scan was performed in order to delineate the anatomic borders of the abscess formation in the pelvic region unilaterally. The images were characteristic for cellulitis and abscess formation (Figures 1, 2). Additionally, there was no evidence of vaginal erosion. Moreover, bacteriological cultures did not yield any pathogen. When the fluctuation was obviously formed on the 10th day, the abscess was drained completely by an incision on the skin under local anesthesia.



FIGURE 1: Post-gadolinium T2-weighted coronal magnetic resonance image demonstrates expansion of the lesion.

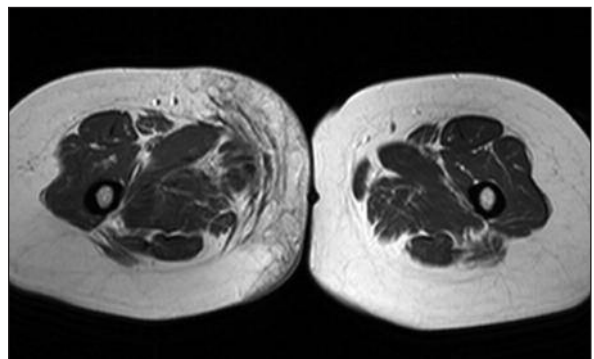


FIGURE 2: Post-gadolinium T2-weighted horizontal magnetic resonance image demonstrates expansion of the lesion.

Antibiotherapy was continued for 14 days in total. After the recovery of all symptoms, the patient was discharged on the postoperative 20th day. She remained continent during 18-month follow-up period.

DISCUSSION

Transobturator midurethral slings are accepted as one of the surgical options for the management of stress incontinence. Risks and complications are rare, however, it includes the same risks associated with any tension-free mesh sling such as bleeding, infection, voiding dysfunction, urinary retention, mesh erosion (in the vagina or urethra) and pain in the vagina or groins.

In the related literature, there are a few published complications concerning febrile morbidities. However, we believe that a number of the surgeons underreport postoperative febrile complications. Most of the cases with late-onset infections were considered to be related to unrecognized vaginal erosions.¹ Prolonged exposition of the tape was mentioned to cause infection of the tape/perineum. The vagina was likely the source of the infection.

Microorganisms cultured from the abscess specimens support this source. The surgical removal of the extruded, therefore potentially colonized portion of the tape is necessary for optimal healing to avoid further erosion and to prevent potentially serious infections such as obturator abscess. Rapid regression of the symptoms are common after the removal of the tape.²⁻⁴ However,

since there was no vaginal erosion and tape infection, the tape was not removed in the presented case.

Our patient was young and did not have any other risk factors which could compromise tissue healing. Surprisingly, the complication occurred as early as in 12 hours postoperatively after the placement of the sub-urethral tape. A painful hematoma formed at the right upper thigh and groin. As the onset of symptoms was earlier than one week postoperatively, it was supposed that the etiology could be different.⁵ We may speculate that the infection could have originated at the time of insertion.

We intervened to the patient as quick as possible with a broad-spectrum antibiotic in order to control infection, and applied cold compression in order to prevent spreading of hematoma through the adjacent anatomic spaces. However, the patient developed an abscess which was cured with drainage and antibiotics.

In the urogynecologic practice, it has been clearly shown that transobturator midurethral sling is a very safe and satisfactory surgical procedure in the treatment of female stress urinary incontinence, can be performed as an ambulatory surgery, is minimally invasive and can be carried in out-patient clinics. However, clinicians must be very careful for the rare but serious complications of the procedure. We recommend a very close follow-up of these patients in terms of bleeding from the obturator vasculature during the early postoperative period.

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