Olgu Sunumu / *Case Report*

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Painful Intercourse After Transobturator Tape Operation, Two Cases With Similar Symptoms But Different Managements

Transobturator Tape Operasyonu Sonrası Ağrılı İlişki, Benzer Semptomları Ancak Farklı Yönetimleri Olan İki Vakanın Sunumu

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Abstract **Aplication:** 27.05.2013 **Accepted:** 16.07.2013

The risk of stress urinary incontinence (SUI) is tremendously increasing in adult females. Midurethral slings (MUS) are the preferred way of treatment for SUI. Transobturator tape (TOT) and transvaginal tape (TVT) operations are the types of MUS procedures and they can be performed with high success rates. Dyspareunia, pain, mesh exposure and vaginal erosion, infection and voiding dysfunction are all possible complications of synthetic slings. Mesh exposure and erosion is the greatest reason of the sling revision/removal operation. Preoperative usage of topical estrogen creams may decrease the incidence of erosion. Surgical excision of the eroded part is still the best way if vaginal erosion occurs.

Keywords: transobturator tape, mesh erosion, sling

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Erişkin kadınlarda stress üriner inkontinans (SÜİ) riski giderek artmaktadır. Midüretral slingler (MÜS) SÜİ için tercih edilen tedavi yöntemidir. Transobturator teyp (TOT) ve transvaginal teyp (TVT) operasyonları midüretral sling yöntemleridir ve yüksek başarı oranları ile uygulanabilirler. Disparoni, ağrı, meş görülmesi ve vaginal erozyon, infeksiyon, ve işeme disfonksiyonu sentetik slinglerin olası komplikasyonlarıdır. Meş görülmesi ve erozyon sling revizyon ve çıkarma operasyonları için en büyük nedendir. Operasyon öncesi topikal estrojen kremlerin kullanımı erozyon riskini azaltabilir. Erode olan bölgenin cerrahi eksizyonu vaginal erozyon durumunda en iyi seçenek olacaktır.

Anahtar Kelimeler: *transobturator teyp, meş erozyonu, sling*

Introduction:

The risk of stress urinary incontinence (SUI) is tremendously increasing in adult females and SUI is seen with a prevalence of nearly 25%.[1] Urinary incontinence (UI) can cause women to have emotional and social problems. Nowadays midurethral slings (MUS) are the preferred way of treatment for SUI. Transobturator tape (TOT) and transvaginal tape (TVT) operations are the types of MUS procedures and they can be performed with high success rates; additionally TOT is a good way of avoiding complications that are a bit more in TVT operation; like urinary, vascular and bowel injuries.[2] There are various mesh slings for SUI. Vaginal erosion and mesh exposure are important and bothersome complications of mesh procedures and TOT has a superiority for mesh erosion than TVT.[2] Here we describe two patients with vaginal erosion and mesh exposure after the TOT procedure; admitting with similar symptoms but having different initial managements.

Case report 1

A 52 years-old, parous (3 children), postmenopausal woman who was operated 5 months ago (vaginal hysterectomy, anterior colporrhaphy and TOT) came with the complaint of pain in sexual intercourse especially for her husband. She had only impaired glucose tolerance, no other systemic diseases or symptoms. She was overweight with a 29 kg/m2 body mass index. Her laboratory levels were normal. Her pelvic examination showed a vaginal eroded mesh (figure), approximately 2 cm in long axis and no other abnormality. There were not any bad smelling vaginal discharge or erythematous appearance or local tenderness. At the operation the eroded mesh material was excised with 0.5 cm marginal side within the anterolateral vaginal wall. Afterwards we closed the anterior vaginal wall. The cystoscopy was negative for bladder and urethral injury. Postoperatively the patient was treated with (topical) vaginal estrogen cream for 3 weeks long. The patient did not have any voiding problem postoperatively. While the routine conrol 6-8 weeks and 3 months after the operation the pelvic examination showed us a well healed vaginal wall, no suture or mesh material in the vagina. The patient also did not state a disturbing stress urinary incontinence.

Case report 2

A 36 years-old gravida 2, para 2 woman, admitted to our clinic with the complaints of stress urinary incontinence. She did not desire a future pregnancy and her symptoms were negatively affecting her life quality. A transobturator tape procedure performed and she was discharged at the postoperative 2nd day without any complaints and with a satisfactory voiding ability.[2] months after the operation the patient came with the symptoms of dyspareunia. Pelvic examination showed a minimally (approximately 1 cm maximum) exposured mesh. There were not any other symptom and the examination did not show any other abnormality. We treated the patient with (topical) vaginal estrogen creams for 3 weeks long and at the end of that period the pelvic examination showed no improvement in the vaginal wall defect. So we decided a surgery and excised the exposured mesh parts; less than 1 cm length and did not excised the other parts of mesh. The cystoscopy was negative for bladder and urethral injury. 6 weeks after the second operation pelvic examination showed us a good healed anterior vaginal wall, no strictness and no incontinence.

Figure 1: Figure shows the erosion of the anterior vaginal wall and mesh exposure (Case 1)

Discussion

Continence is the result of some dynamic mechanisms between urethra, bladder, sphincters, neuro-muscular compartments and pelvic floor. Although incontinence is seen in many ways, stress urinary incontinence is very high in women who has multiple deliveries. So far reconstruction for pelvic floor is needed for the optimalization of urinary functions.

Midurethral slings are very popular in SUI surgery and whether retropubic approach or transobturator method does not have significant differences in subjective cure rates and both have an efficacy of approximately 80-90%.[3] Transobturator tape can be performed in two types, outside-in and inside-out method. Inspite of some variations across studies, both has similar efficacy and complication rates.[2] At our institute we generally perform the outside-in method with synthetic meshes and have a very low complication rate with extremely high patient satisfaction prevalences.

Dyspareunia, pain, mesh exposure and vaginal erosion, infection and voiding dysfunction are all possible complications of synthetic slings. 188,454 women who underwent a midurethral sling procedure between 2001 and 2010 was evaluated from operation codes and the 9 year cumulative risk of sling revision/removal was 3.7%. The risk of removing the mesh in the first year was found to be 2.2%. Mesh exposure and erosion was the greatest reason of the sling revision/removal operation. Moreover having a concomitant operation for anterior prolapse was found to increase the risk of mesh revision/removal operation.[4] Our first patient had vaginal hysterectomy and anterior colporrhaphy with TOT procedure nevertheless the second patient had only TOT procedure.

Dyspareunia and mesh exposure are important complications of TOT procedure especially for the quality of life. Dyspareunia has been reported up to 9% after TOT procedure.[5] And also it should be kept on mind that dyspareunia could also be a symptom of vaginal mesh exposure like our patients.

Mesh exposure after mid-urethral sling operation has a higher existing rate especially after the usage of synthetic meshes.[6] Mesh exposure could present like vaginal pain, vaginal discharge, bleeding, recurrent urinary tract infection and voiding irregularities[6]. Dyspareunia was the outstanding symptom for our patients and we did not notice any bleeding, discharge or a sign of an infection. Although it is rarely seen; bladder perforations and bladder or urethral erosions could be seen after TOT procedure.[7] For vaginal erosion cases we suggest doing a cystoscopy at the time of sling revision procedure; however in case of other signs related to bladder complications, an urgent cystoscopy should be performed.

Preoperative usage of topical estrogen creams may decrease the incidence of erosion and also an additional entity that if the anterior vaginal wall is excised too much, there might be a tension at the anterior vaginal wall which causes the mesh to be pressed between the vagina and bladder, resulting in erosion or a fistula formation.[8,9] Poor surgical technique, damaging blood supplies of the tissue, extensive tension or local infection could also be the reason of vaginal erosion.6 We prefer using topical estrogen creams preoperatively before TOT procedure for postmenopausal patients with vaginal atrophy, however in case of vaginal erosion and mesh exposure topical estrogen creams should be the first choice if the defect is not very large.

Monofilament-macroporous, polypropylene meshes are the preferred type of sling materials. Macroporous meshes will allow macrophage migration so far they could blockade bacterial escape. Additionally polypropylene meshes have benifits on erosion prevention.[10] An important part of vaginal mesh exposure cases show no symptoms; Hammad et al.[10] found most cases at the first three months period after the operation. For our patients the time interval was also nearly like that. Although Kobashi and Govier[11] offered a conservative approach for mesh exposure; surgical excision of the eroded part is still the best method.[10] We also finally excised the eroded mesh parts for our patients.

Conclusion

Vaginal erosion, mesh exposure cases may not show symptoms, however the postoperative outpatient examination is very important especially at the first three months. There is a debate on using topical estrogen creams; but for disturbing resistant cases surgical removal of the mesh is the gold standart. Gynecologists should notice performing cystoscopy in need.

References

1. Yamanaka O, Hobbs RE. Coronary artery anomalies in 126,995 patients undergoing coronary arteriography. Cathet Cardiovasc Diagn 1990;21: 28-40
2. Popma JJ, Bittl J. Coronary angiography and intravascular ultrasonography. In: Braunwald E, Zipes DP, Libby P, eds. Heart Disease: A Text Book of Cardiovascular Medicine. 6th ed. Philadelphia, WB Saunders, 2001,387-421
3. Tedeschi C, De Rosa R, Ratti G, Sacco M, Borrelli F, Runza G, et al. [Anomalous origin of the circumflex artery from the right aortic sinus: assessment with conventional coronary angiography and multislice computed tomography]. G Ital Cardiol (Rome) 2008;9:421-4.
4. Datta J, White CS, Gilkeson RC, Meyer CA, Kansal S, Jani ML et al. Anomalous coronary arteries in adults: depiction at multi-detector row CT angiography. Radiology. 2005;235(3):812–818.
5. Aydinlar A, Çiçek D, Sentürk T, Gemici K, Serdar OA, Kazazoglu AR, et al. Primary congenital anomalies of the coronary arteries: a coronary arteriographic study in Western Turkey. Int Heart J. 2005;46:97–103.
6. Roberts WC, Shirani J. The four subtypes of anomalous origin of the left main coronary artery from the right aortic sinus (or from the right coronary artery). Am J Cardiol. 1992;70(1):119–21.
7. Burke AP, Farb A, Virmani R, Goodin J, Smialek JE. Sports-related and non-sports-related sudden cardiac death in young adults. Am Heart J. 1991;121:568–575.
8. Taylor AJ, Rogan KM, Virmani R. Sudden cardiac death associated with isolated congenital coronary artery anomalies. J Am Coll Cardiol. 1992;20(3):640–647.
9. Tekbas EO, Cakici M, Yuce M, Alici H, Davutoglu V. Twin circumflex arteries with left sinus of valsalva origin: a case report. Int J Angiol. 2011;20:101-2
10. Karabay KO, Uysal E, Bağırtan B, Vural M. A case of twin circumflex arteries associated with acute myocardial infarction. Turk Kardiyol Dern Ars. 2010;38:496-8
11. Attar MN, Moore RK, Khan S. Twin circumflex arteries: a rare coronary artery anomaly. J Invasive Cardiol. 2008;20:E54-5