



www.figo.org

available at www.sciencedirect.com

 ScienceDirect

www.elsevier.com/locate/ijgo



SPECIAL EDITORIAL

Midurethral synthetic slings: A social revolution



Ismail Mete Itil, MD
University of Ege
Izmir, Turkey

Dr Ismail Mete Itil is Professor of obstetrics and gynecology at the University of Ege, Izmir, Turkey. He practices at the University Hospital and at a private clinic in Izmir. His specialty is urogynecology, which he studied at the University of Gratz as a fellow of Dr Karl Tamussino. Dr Itil is the Secretary General of the Turkish Society of Gynecology and Obstetrics, a position he has held for the past 4 years. He is also a member of the FIGO Executive Board and the Editorial Board of IJGO Turkey, which published its first issue in March 2008. Dr Itil has published numerous books on urogynecology and over 70 papers.

Stress urinary incontinence (SUI) is a common health problem affecting millions of women worldwide. Incidence rates for SUI vary in the current medical literature. The Norwegian EPINCONT study reported an incidence of 12.2% in women who had undergone vaginal delivery [1]. In a cross-sectional multicenter study in Turkey, 5565 women who had

been referred with complaints other than urinary incontinence (UI) or overactive bladder symptoms were surveyed using the International Consultation on Incontinence Questionnaire–Short Form (ICIQ-SF). The crude prevalence of UI was 35.7%, and the prevalence of frequent and severe UI was 8.2% and 6.8%, respectively [2].

Life expectancy has increased in the last century and women anticipate that they will live longer than their mothers, and will continue to lead active and healthy lives.

SUI can cause depression, bone fractures, and sexual dysfunction—all of which lead to low quality of life. The burden of the disease means that SUI can be considered a social problem.

Surgeons have created over 200 different procedures for permanent resolution of SUI, but few have been highly effective. Sling procedures are one of the effective solutions. Slings were first described at the beginning of the 20th century and are all based on the theories behind colposuspension and needle suspension [3].

In the 1990s, Ulmsten and Petros [4] proposed a new theory to explain female urinary incontinence, and this was followed by the development of tension-free vaginal tape (TVT)—the first synthetic sling. To date, over 1 million operations have been performed throughout the world using this technique, which is highly effective and has a low complication rate. Although some serious complications have been reported, their incidence is very low. The rate of vascular complications has been reported as 0.007% [5], while the rate of bowel complications was 0.04% [6].

In 2001, Delorme introduced the transobturator procedure [7]. This alternative method gained the interest of many surgeons and quickly became popular. It mimics the “hammock” hypothesis of DeLancey [8], and avoids potential complications in the retropubic space. Other benefits of the transobturator tape (TOT) procedure include shorter operating times, lower average blood loss, and a lower risk of bladder injury. In a survey, one-third of responding surgeons felt that the TOT approach is the way forward in the management of SUI, while the majority of respondents were waiting for the results of long-term clinical trials [9]. Indeed, there are no randomized, prospective clinical trials that show the effect of TOT in cases of obesity, mixed incontinence, and intrinsic sphincter deficiency. However, the experience with TVT encourages us to think positively.

There was resistance by some to use these meshes in our practice, and I believe this was because we had rarely used them before, and it was a significant change to our clinical practice. However, these meshes have been routinely used by general surgeons for many years despite the complications. I think that the so called "industrial push" [10], or the easy technique and low learning curve cannot solely explain the widespread use of these synthetic slings. Credit must be given to their high efficacy and low complication rate, which lead to high patient and clinician satisfaction.

Many women feel that they can begin to live again after the operation. Once relieved of SUI-related depression, many women have been able to redevelop normal social and sexual relations, and their quality of life has improved significantly. This has allowed many women to return to their previous lives, and give their best to society. From this point of view, midurethral synthetic slings can be seen as an important social revolution rather than a medical one.

References

- [1] Hannestad YS, Rortveit G, Sandvik H, Hunskaar S. A community-based epidemiological survey of female urinary incontinence: the Norwegian EPINCONT study. *Epidemiology of Incontinence in the County of Nord-Trøndelag*. *J Clin Epidemiol* 2000;53(11): 1150–7.
- [2] Cetinel B, Demirkesen O, Tarcan T, Yalcin O, Kocak T, Senocak M, et al. Hidden female urinary incontinence in urology and obstetrics and gynecology outpatient clinics in Turkey: what are the determinants of bothersome urinary incontinence and help-seeking behavior? *Int Urogynecol J Pelvic Floor Dysfunct* 2007;18(6):659–64.
- [3] Rock JA, Thompson JD, editors. *TeLinde's Operative Gynecology*. 8th ed. Philadelphia: Lippincott Williams & Wilkins; 1997. p. 1081.
- [4] Petros P, Ulmsten U. An integral theory of female urinary incontinence. Experimental and clinical considerations. *Acta Obstet Gynecol Scand Suppl* 1990;153:7–31.
- [5] Sivanesan K, Abdel-Fattah M, Ghani R. External iliac artery injury during insertion of tension-free vaginal tape: a case report and literature review. *Int Urogynecol J Pelvic Floor Dysfunct* 2007;18(9):1105–8.
- [6] Kroon ND, Smith KM, Gill J. Bowel injury at TVT: an issue of consent. *J Obstet Gynaecol* 2007;27(7):741.
- [7] Delorme E. Transobturator urethral suspension: mini-invasive procedure in the treatment of stress urinary incontinence in women [in French]. *Prog Urol* 2001;11(6):1306–13.
- [8] DeLancey JO. Structural support of the urethra as it relates to stress urinary incontinence: the hammock hypothesis. *Am J Obstet Gynecol* 1994;170(6):1713–23.
- [9] Abdel-Fattah M, Ramsay I. Transobturator tension free vaginal tapes: are they the way forward in the surgical treatment of urodynamic stress incontinence? *Int J Surg* 2007;5(1):3–10.
- [10] Petri E, Kölbl H. Eminence, or rather eloquence, or rather economy-based medicine? *Int Urogynecol J Pelvic Floor Dysfunct* 2004;15(3):147–8.

Ismail Mete Itil
 University of Ege, Izmir, Turkey
 E-mail address: meteitil@gmail.com.