



Editorial

Mid-urethral sling in the management of women with stress urinary incontinence after pelvic organ prolapse treatment



In this August issue of the *Taiwanese Journal of Obstetrics and Gynecology*, an interesting original article entitled “Comparison between tension-free vaginal tape and transobturator tape in treating stress urinary incontinence after vaginal mesh surgery [1]. The authors retrospectively enrolled a total of 87 women who were treated with anterior mesh repair before and had occurrence of stress urinary incontinence (SUI) postoperatively [1]. Among these, 50 women underwent transobturator tape (TOT) therapy and the remaining 37 women were treated with tension-free vaginal tape (TVT), and the results showed that the success rate was statically significantly higher in the TVT group than that in the TOT group at the median follow-up of 18.5 months, and of most importance, patients treated with TVT had a lower risk of repeated surgery than patients treated with TOT did [1]. Therefore, the authors concluded that TVT might be a more effective surgical opinion than TOT in women with SUI after vaginal mesh repair [1]. This study is interesting and worthy of discussion.

First, the current study focused on the special population because the authors enrolled patients who have already received vaginal mesh repair for their pelvic organ prolapse (POP), and in addition, these patients after surgery subsequently developed SUI [1]. As shown by authors, POP commonly coexists with SUI (20%) and de novo SUI after surgery for POP occurred frequently with the range between 12% and 35% [1], suggesting that POP surgery should consider the subsequent sequelae-occurrence of SUI. It also hints that preoperative and postoperative evaluation for POP patients might be required [2]. Furthermore, combination therapy, including POP surgery and anti-SUI surgery might be taken into account.

Complete and thorough evaluation is critical for the initiation of surgery in the management of women with POP and/or pelvic floor disorders (PFD), since this category of disease is a broad range of clinical scenarios, and some of them can be managed successfully by non-surgical approach [3]. Surgery is often used in the severe form of anatomic defect; however, surgery might not improve the existence of symptoms, especially urinary tract problems. Therefore, the relevance of the assessment of health-related quality of life (HR-QoL) and functional status, such as the International Consultation on Incontinence-Vaginal Symptoms (ICIQ-VS) questionnaire and the International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF) are important adjuvants to standard clinical outcome [4], which is also performed by the authors' publication [1]. However, more quantitative parameters, such as urodynamic evaluation might also be required to clarify what category of the disease patterns is

[5,6]. To perform the above-mentioned procedure, it might minimize the risk of persistent or occult SUI in women with POP and/or PFD after surgery, because it is well-known that women with POP and/or PFD are considered at risk of having persisting or de novo postoperative SUI once the prolapse has been repaired [7–9]. Liang and colleagues found that preoperative maximal cystometric capacity less than 300 mL, severe bladder trabeculation, and duration of POP symptoms more than 60 months were associated with persistent urgency urinary incontinence (UUI) after prolapse repair [9]. Without urodynamic study, Ugianskiene and colleagues found that the assessment of functional status and previous anti-SUI surgery were identified as risk factors for persisting urinary incontinence (UI) after POP surgery. All suggested that preoperative evaluation either by questionnaire or by objective parameters-urodynamic study could predict the lower urinary tract symptoms (LUTS) after POP surgery. If the patients are classified as a risk for persistent or de novo UI, some modified strategies might be considered.

One of modified strategies is combination surgery with simultaneous POP surgery and anti-incontinence surgery. Although there is strong evidence supporting the reduction of the risk of postoperative SUI in women treated with combination surgery of POP and UI, the risks and benefits should be balanced for individual woman [7]. A recent meta-analysis confirmed the reduced risk of postoperative SUI in combination surgery of POP and UI, but also revealed the harmful effects on women treated with combination surgery [7]. The data showed that vaginal prolapse surgery with concomitant anti-SUI surgery reduces the risk of postoperative SUI in women with SUI symptoms or occult SUI before surgery with relative risk (RR) of 0.0 (95% confidence interval [CI] 0.0–0.2) and 0.1 (95% CI 0.0–0.6), respectively; however, severe adverse events (SAEs) occurred more frequently in combination POP and anti-SUI surgery, such as bladder perforations, ureteral injuries, tape exposures, mid-urethral sling (MUS)-related pain, long-term voiding difficulties and tape loosening with RR of 1.7 (95% CI 1.1–2.7) [7]. If concerning much about the principle of “first, do no harm” for these women with POP [7], shared decision-making between physicians and patients should be emphasized [10].

Finally, it is important to discuss the surgery methods (TOT and TVT) in the management of women with SUI. In fact, both surgeries were minimally invasive procedures, and the most common bothersome problem is the vaginal erosion and tape exposure [11], although some papers are against this [12]. Since estrogen plays an important role during the wound healing [13,14], and these women with POP are often elderly population, the delicate surgical

technique and adequate postoperative care, including topical use of estrogen might be needed. To assess the effectiveness of mini-sling procedure in women with SUI, a Cochrane review reported no difference in clinical outcomes between TVT and TVO [11]. However, in term of economic consideration, TVT may be more cost-effective than TOT in the management of women with SUI based on one-year follow-up [11]. Dr. Lin's current study also supported that TVT is a better choice in the management of SUI of women with previous POP surgery [1].

In conclusion, with an increasing elderly population, age-related disability, including POP, SUI as shown in the August issue of the *Taiwanese Journal of Obstetrics and Gynecology* are dramatically and significantly increasing [1]. Every effort should be made to provide a better care based on clinical evidence.

Conflicts of interest

The author declares no conflict of interest.

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