# SIMULTANEOUS TOT WITH CLASSICAL VAGINAL REPAIR OF POP AND UTERO-SACRAL LIGAMENT AUGMENTATION - RETROSPECTIVE STUDY

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SPLOŠNA

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# Hypothesis / aims of study

Pelvic organ prolapse (POP) and stress urinary incontinence (SUI) are prevalent pelvic floor disorders that can significantly affect a woman's quality of life. While these conditions frequently coexist they may require separate surgical interventions for optimal management. However, in specific cases, simultaneous transobturator tape (TOT) placement with classical repair of POP and uterosacral ligament (USL) augmentation may be considered as a comprehensive approach to address both POP and SUI concurrently. This integrated surgical strategy aims to provide robust pelvic floor support, improve continence outcomes, and streamline the treatment process for patients. Schematic representation showing postoperative mesh position can be seen in Figure 1. In this study, we explore the specific indications, benefits, and considerations surrounding the simultaneous approach to TOT placement with classical repair of POP and USL augmentation.



Figure 1: Schematic representation showing postoperative mesh position.

### Study design, materials and methods

The study retrospectively evaluated the efficacy and safety of simultaneous transobturator tape (TOT) placement with classical repair of pelvic organ prolapse (POP) and uterosacral ligament (USL) augmentation in patients with stage II-IV POP. Conducted at a monocentric institution by a single experienced surgeon, the study reviewed medical records and outcomes of 78 female patients (median age 61 years [38-80 years]) undergoing the procedure between January 2017 and February 2023 (shown in Table 1). Patients had stage II-IV POP-Q (pelvic organ prolapse quantification system) with anterior and central compartment prolapse. Surgical interventions involved TOT placement with self-cut tape-implants for USL augmentation using non-absorbable polypropylene mesh. Ethical approval was obtained, adhering to the Declaration of Helsinki. The surgical technique evolved based on previous experience, with mesh size reduction and modification of the operative approach. Clinical outcomes were assessed using the International Continence Society (ICS) staging system and questionnaires for continence and sexual function, and postoperative complications monitoring.

#### **Results and interpretation**

The study outcomes demonstrated the efficacy and safety of simultaneous TOT placement with classical POP repair and USI augmentation Anatomical restoration evaluated using the International Continence Society (ICS) staging system, showed a high success rate, with 98% of patients achieving ICS stage zero at both 3 and 12 months postoperatively. This indicates strong pelvic floor support and effective management of POP. The procedure showed a low complication rate, with only one serious complication, involving peritonitis with ileus and subsequent removal of the tissue implant. Intraoperative complications were absent, and there were no cases of POP recurrence during the study period. Minor postoperative complications occurred in 5% of cases, including two instances of implant material exposure and one case of de-novo overactive bladder symptoms with borderline urine retention. All minor complications were successfully managed, further supporting the safety and efficacy of the procedure. Patient satisfaction rates were high, reflecting the positive impact of the comprehensive surgical approach on quality of life.

These results highlight the innovation and effectiveness of the TOT placement combined with classical POP repair and USL augmentation. This technique offers an advanced alternative to traditional POP treatments by utilizing tension-free insertion of apical tapes towards the USL, reducing risks of postoperative dyspareunia and complications related to tape materials, similar to the benefits seen with TVT-O procedures. Aesthetic benefits are also notable, with discreet skin incisions in the femoral-genital folds, contributing to higher patient satisfaction. The simultaneous approach provides a thorough solution for patients with mixed urinary incontinence or moderate to severe POP with stress urinary incontinence, offering anatomical support across multiple pelvic compartments. It can be customized to individual patient needs, addressing both apical and anterior prolapse while enhancing urethral support and continence. However, this approach requires careful patient selection and counseling due to its increased surgical complexity, potential for meshrelated complications, and the need for long-term monitoring to mitigate recurrence risks.

#### Table 1: The number of TOT + USL augmentation performed for POP correction.

	Vaginal cuff prolapse	Without hysterectom y	With hysterectom y	Together
TOTs+USLs augmentation	8	9	61	78
Median age	66	49	63	61
Age range	54-77	38-62	40-80	38-80

USLs augmentation = Uterosacral ligaments augmentation TOTs = Transobturator tapes

### Conclusions

Simultaneous TOT placement with classical repair of POP and USL augmentation is a safe and effective surgical approach for addressing both SUI and POP concurrently. While the procedure offers numerous benefits, careful patient selection, thorough counselling, and obtaining informed consent are essential. Further research is needed to assess long-term effectiveness and safety outcomes. This study contributes to the growing body of evidence supporting the use of simultaneous procedures for pelvic floor disorders and highlights the importance of individualized treatment approaches in optimizing patient outcomes and satisfaction.