

## **Role of Preoperative and Postoperative Endovaginal Ultrasound and 24-Hour Pad Test in Evaluation of Efficacy of Various Treatment Modalities for Stress Urinary Incontinence**

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**Abstract :** Background: Stress urinary incontinence (SUI) is a common problem affecting the quality of life of women. Methods: It is a prospective study conducted over 40 women of SUI by endovaginal ultrasound on rest and Valsalva preoperatively and six months postoperatively for levator hiatus, pubovisceral thickness, urethral length, and bladder neck position. A 24-hour pad test was also performed on all women at the same time for grading of SUI. Treatment given was medical in 4 (10%), Burch colposuspension in 18 (45%), and tension-free obturator tape in 18 (45%). Results: Mean age, parity, and body mass index in the study were 41.60 years, 2.73, and 24.2 kg/m<sup>2</sup>, respectively. All 40 (100%) patients had SUI, with the mean duration of symptoms being 4.04 years. On the 24-hour pad test, mild SUI was in 4 (10%), moderate SUI in 33 (82.5%), and severe SUI in 3 (7.5%), with mean preoperative 24-hour pad test being 36.69 gm which significantly reduced to 9.79 gm postoperatively (p 0.001). There was a significant change in levator hiatus and pubovisceral thickness with the treatment of SUI. Overall urethral length increased, but there was a significant decrease in urethral length on Valsalva after the treatment (0.40 versus 0.28 cm, p 0.04) and a significant reduction in bladder neck descent after Valsalva after treatment (0.41 cm versus 0.27 cm, p 0.001). Conclusion: Endovaginal ultrasound and 24-hour pad test are useful diagnostic modalities for SUI diagnosis and to see the impact of treatment.

**Keywords :** stress urinary incontinence, endovaginal ultrasound, 24-hours pad test, pubovisceral muscle thickness

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