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**Title:** DOES HORMONE REPLACEMENT THERAPY AFFECT TVT SUCCESS RATES?

### **Aim Of Study:**

Oestrogens are known to increase urethral resistance and to increase  $\alpha$  adrenoreceptor sensitivity in the urethral smooth muscle (1). In addition oral oestrogen therapy has been shown to increase maximum urethral closure pressure (2). Available evidence does not support their sole use in the management of genuine stress incontinence (3) although they may have a synergistic role with other treatment modalities. When considering the outcome of colposuspension previous work has suggested that menopausal status has no effect on success rates (4) although other authorities suggest it may (5) To date there are no reported data assessing the use of oestrogen supplementation on the outcome of the TVT procedure. The aim of this study was to try and determine the impact of hormonal status on the success rate of the TVT procedure.

### **Methods:**

A retrospective observational study of all women undergoing the TVT procedure in three hospitals: a tertiary referral urogynaecology unit, a teaching hospital and a district general hospital. The hospital case notes were reviewed and data collected on a standardised form before being databased for analysis. Menopausal status and HRT use were recorded pre-operatively. Patients were then reviewed 3 months post-operatively. Success was based on subjective cure as defined as no reported leakage by the patient at clinic review.

### **Results:**

There were 321 sets of notes available for review. 226 women were post-menopausal, 89 pre-menopausal and the menopausal status was not documented in 6 cases. Outcome of the TVT procedure with regard to HRT use is shown below (**Table 1**).

	Pre-menopausal		Post-menopausal	
	HRT	No HRT	HRT	No HRT
<b>Number of cases</b>	4	85	143	55
Cure n (%)	4 (100)	82 (96)	126 (89)	49 (90)

**Table 1: Outcome following TVT procedure.**

When considering the women in the postmenopausal group there was no difference in voiding difficulties between those women taking HRT and those not, the incidence being 8% and 9% respectively. In addition there was no difference in healing of the vaginal incision, with only 3% having problems in both groups.

**Conclusions:**

Theoretically endogenous oestrogen withdrawal following the menopause may be associated with lower success rates following the TVT procedure due to effects on urethral resistance and the pelvic floor musculature. It is reassuring that data from this cohort of women does not support this hypothesis and this may prove useful when counselling patients regarding HRT use.

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