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## TVT-SECUR: SECURE OR INSECURE?

### Hypothesis / aims of study

The purpose of this study was to assess the feasibility of using 3D/4D ultrasound to visualise mid-urethral tapes after insertion<sup>(1)</sup>. The surgical management of female stress urinary incontinence (SUI) has been revolutionized since the introduction of the tension free vaginal tape in 1995. The tension-free vaginal tape (TVT) has been a highly efficacious surgical treatment for female stress urinary incontinence with the longest follow up of 7.6 years, demonstrating cure rate of 81% and improvement in 16%.

With the growing popularity of this procedure, many other versions of the mid-urethral tapes were introduced with minor variations. Another minor leap in the progress is tunneling the tape through the obturator foramen instead of the retropubic region, for example, Tension free vaginal tape-Obturator (TVT-O)<sup>(2)</sup>. This has the added advantage of avoiding entry into the pelvis, hence reducing the likelihood of injury to the bladder, intraperitoneal viscera and major vessels. Medium term cure rates are similar to that of TVT.

Recently a newer and shorter tape (Tension free vaginal tape-Secur (TVT-S)) was introduced.

We performed 3D/4D ultrasound on 5 patients who had TVT-S inserted for SUI<sup>(3)</sup>.

### Study design, materials and methods

3D/4D U/S was performed using Voluson 730 Expert on 5 patients who had TVT-S inserted more than 6 months ago. The patient's bladder was filled to 300mls with normal saline for the U/S.

### Results

We were able to see the placement of TVT-S easily. The position of the tape yielded important reasons that could substantiate the failure of mid-urethral sling surgeries.

### Interpretation of results

Some of the tapes were placed with unequal arms. Some tapes were twisted.

### Concluding message

Trans-perineal 3D/4D ultrasound provides a unique and revolutionary technique to visualize the mid-urethral tapes after insertion.

### References

1. Novara G., Ficarra V., Boscolo-Berto R et.al. (2007) Tension-free midurethral slings in the treatment of female stress urinary incontinence: a systematic review and meta-analysis of randomized controlled trials of effectiveness. Eur Urol. 52(3): 663-78
2. De Leval (2003) Novel surgical technique for the treatment of female stress urinary incontinence: transobturator vaginal tape inside-out. Eur Urol. 44:724
3. HP Dietz (2004) Ultrasound imaging of the pelvic floor. Part II: three-dimensional or volume imaging. Ultrasound Obstet Gynecol; 23: 615-625

<b>Specify source of funding or grant</b>	<b>Yes. KK Research Grant</b>
<b>Is this a clinical trial?</b>	<b>Yes</b>
<b>Is this study registered in a public clinical trials registry?</b>	<b>Yes</b>
<b>Specify Name of Public Registry, Registration Number</b>	<b>Centralised Institutional Review Board, EC200703042</b>
<b>Is this a Randomised Controlled Trial (RCT)?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>Centralised Institutional Review Board</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>