

## THE USE OF AUTOLOGOUS RECTUS FASCIA AND POLYPROPYLENE MESH AS A COMBINED SLING FOR TREATMENT OF FEMALE STRESS URINARY INCONTINENCE

### Hypothesis / aims of study

The use of synthetic materials as mid-urethral slings for treatment of stress urinary incontinence is associated with a non negligible risk of urethral and / or vaginal erosions. In this study we report the 12-month results after the use of a new transobturator tape which is composed of autologous rectus fascia that is attached to a polypropylene mesh on its either side.

### Study design, materials and methods

We included 26 female patients with a non recurrent stress urinary incontinence (SUI). In all of them the same technique was applied. This technique involved harvesting a transverse strip (1.5 x 5 cm) from the patient's rectus fascia through a small Pfannenstiel incision. One of the short edges of this strip was sutured to an isolated segment (1.5 x10 cm) of polypropylene mesh. The same was repeated in the other short edge to form a 25 cm tape. This combined sling was then inserted as a mid-urethral sling via the usual transobturator technique (outside – in) with its middle part (rectus fascia) related to the urethra. All patients were evaluated by Urogenital Distress Inventory-Short Form (UDI-6), Incontinence Impact Questionnaire-Short Form (IIQ-7), 1-hour pad weight test (PWT) and cough stress test (CST). This assessment was carried out in the pre-operative work up and at 6 & 12 months post-operatively.

### Results

Two patients were not available at the 1-year follow up. The mean age for the available cases was 43.9 ± 10.3 years (range 26 to 63, median 46). At 1 year 91.7% of patients had a negative CST and 87.5% had PWT less than 1 gm. Also, at that time the scores for the UDI-6 and IIF-7 had a statistically significant decrease ( $p < 0.001$ ) compared to those of the baseline. No cases of vaginal or urethral erosions were reported in this follow up period. The recorded complications included: temporary urinary retention in one patient who required an extra week of Foley's catheterization, dyspareunia in one patient and de-novo urge incontinence in two cases.

### Interpretation of results

This new technique seems to be effective and durable on short term follow up. It has few side effects with no intraoperative complication. The most attractive issue of this new technique that there was no incidence of erosion postoperatively by replacing the polypropylene part in direct contact with the delicate urethra and vagina by an autologous rectus fascia strips through a small Pfannenstiel incision.

### Concluding message

This new technique is an effective procedure for treatment of female SUI. It has the advantage of the low cost and less side effects. However, a longer follow up is needed to test the durability of this technique and a randomized controlled trial with the original tape is also needed before the final conclusion.

<b>Specify source of funding or grant</b>	<b>No external fund or 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>No</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>Local institutional ethical committee</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>