# Abstract # 554

# A Prospective Study on Autologous Rectus Fascia Pubovaginal Sling Surgery in the Surgical treatment of Women with Urodynamic Stress Urinary Incontinence

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## Introduction

Stress urinary incontinence (SUI) is the involuntary loss of urine with activities causing increased intra-abdominal pressure. Prevalence varies from 18% in India to 26.4% in USA. Diagnosis is made by symptoms assessment including frequency volume chart and assessing quality of life questionnaire, abdominal and pelvic examination, cough test, voluntary pelvic floor muscle contraction and post void residual urine. International Consultation on Incontinence Questionnaire (ICIQ) calculates the score by asking the patient how often she leaks, how much she leaks and on a scale on 0-10 the impact on her quality of life.

Thus, the study access the short term results of autologous rectus fascia pubovaginal sling surgery in treatment of female stress urinary incontinence.

## Methods and Materials

It was a prospective study on 27 women between 25-65 years of age with urodynamic proven SUI who underwent autologous rectus fascia pubovaginal sling surgery. Preoperative and postoperative ICIQ- SF (International Consultation on Incontinence Questionnaire short form) score and urodynamic studies were done in all women.

**Table 1. Preoperative evaluation of patients (n=27)**

| S.no | Characteristic | Group I (n=27) (Autologous rectus fascia pubovaginal sling surgery) |
|---|---|---|
| 1. | Demonstrable SUI on cough | 27 (100%) |
| 2. | Bonney's test | 27 (100%) |
| 3. | Preoperative ICIQ-SF score<br>Range<br>Mean ± SD | 13 - 20<br>16.27 ± 2.78 |
| 4. | Preoperative Pdet at Qmax (cm H2O)<br>Range<br>Mean ± SD | 4.8 – 35.6<br>24.15 ± 7.05 |

**Table 2. Operative details (n=27)**

| S.no | Characteristic | Group I (n=27) (Autologous rectus fascia pubovaginal sling surgery) |
|---|---|---|
| 1. | Additional surgery<br>Total abdominal hysterectomy<br>Left salpingo-oopherectomy<br>Cystocele repair | <br>3<br>1<br>0 |
| 2. | Operative time (mins)<br>Range<br>Mean ± SD | <br>48-65<br>55.60 ± 5.77 |
| 3. | Blood loss (ml)<br>Range<br>Mean ± SD | <br>100-500<br>220 ± 15 |
| 4. | Postoperative hospital stay (days)<br>Range<br>Mean ± SD | <br>5- 12<br>7.1 ± 1.2 |
| 5. | Postoperative catheterization (days)<br>Range<br>Mean ± SD | <br>4- 50<br>5.8 |

## Results

**Table 3. Postoperative complications in two groups (n=30)**

| S.no | Characteristic | Group I (n=27) (Autologous rectus fascia pubovaginal sling surgery) No. (%) |
|---|---|---|
| 1. | Urinary retention | 7 (26%) |
| 2. | Urgency | 2 (7.40%) |
| 3. | Urinary tract infection | 1 (3.7%) |
| 4. | Wound hematoma | 2 (7.40%) |
| 5. | Surgical site infection | 4 (14.8%) |
| 6. | Groin pain | 0 (0) |
| 7. | Vesicovaginal fistula | 1 (3.7%) |
| 8. | Urinary retention needing cutting of sling | 1 (3.7%) |

**Table 4.** Success rate and postoperative parameters

| S.no | Parameters | Group I (n=27) (Autologous rectus fascia pubovaginal sling surgery |
|---|---|---|
| 1. | Success<br>(tape was cut in 1 case and VVF developed in 1 case) | 27 (100 %) |
| 2. | ICIQ score | 0 |
| 3. | Urodynamic study<br>Pdet at Qmax (cm $H_2O$)<br>Range<br>Mean | 1 (3.7%)<br><br>15.4 – 35.3<br>29.54 ± 6.03 |

## Discussion

Athanosopouloset al (28) also observed high success rate (75.8% complete success, 9.1% partial successs) and a low complication rate of 29.2% in rectus fascia sling surgery. Lee et al (29) in their study of 7.4 years follow up on primary and secondary pubovaginal sling surgery observed favourable functional outcome and low morbidity but lower success rate of secondary pubovaginal sling surgery.

## Conclusions

Autologous rectus fascia sling appears to be highly effective operative for surgical management of SUI.

## References

1. Athanasopoulos A, Gyftopoulos K, McGuire EJ. Efficacy and Preoperative Prognostic Factors of Autologous Fascia Rectus Sling for Treatment of Female Stress Urinary Incontinence. Urology. 2011;78(5):1034–8.
2. Lee D, Murray S, Bacsu CD, Zimmern PE. Long-term outcomes of autologous pubovaginal fascia slings: Is there a difference between primary and secondary slings?: Long-Term Outcomes of Autologous Pubovaginal Fascia Slings. Neurourol Urodyn. 2015;34(1):18–23