

## INFRACOCYGEAL SACROPEXY FOR VAULT PROLAPSE WITH MODIFICATIONS FOR UTEROVAGINAL PROLAPSE: AN INITIAL EXPERIENCE.

### Hypothesis / aims of study

The Infracoccygeal sacropexy, or the Intravaginal Slingplasty (IVS), is a new minimally invasive procedure introduced by Petros in 1997 to correct vault prolapses (1). In our series we have modified the technique of IVS to correct uterovaginal prolapses and have thus negated the need for removal of the uterus prior to the repair. We also analyse and compare the results with vault prolapses and thus the aim of this study is to report our early experience and short term results with IVS, in vault prolapses as well as in uterovaginal prolapses.

### Study design, materials and methods

A total of 14 Posterior IVS procedures were performed between June 2004 and May 2005. This study involved retrospective analyses of the indications, intra-operative and post-operative complications and early post-operative results as documented in the case-notes. This was combined with a telephone survey to evaluate post-operative symptomatology and quality of life. The standardised questionnaire related to prolapse symptoms, urinary, bowel and sexual functions. The cure rates for each of the presenting complaint were determined by evaluation with the questionnaire. The quality of life questionnaire used was the SF-36 proforma (2).

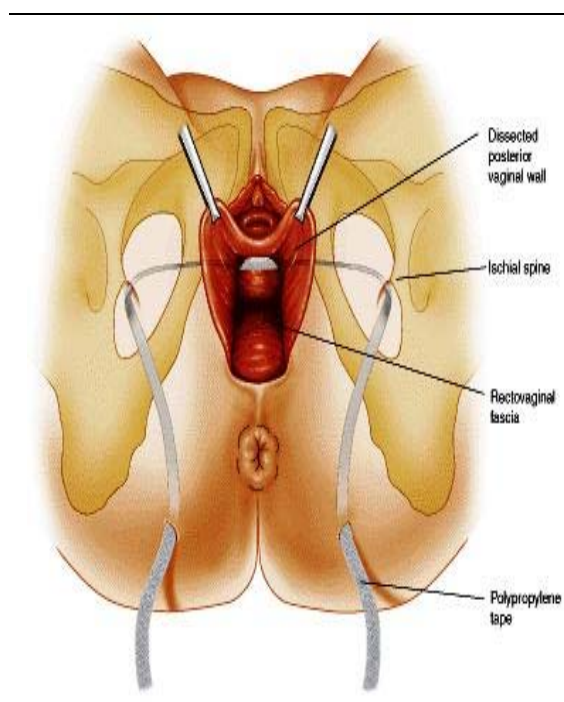
**Statistical analysis** was performed using SigmaStat 3.0 (SPSS Inc).

### Results

#### **Modification of the procedure In Uterovaginal Prolapse:**

A transverse incision was made in the posterior fornix and the vaginal wall opened up to 1 cm proximal to the external os. The incision is opened further and a rectocele if present is dissected out and reduced. The IVS Tunneller (Tyco Health Care, USA) is used to place the polypropylene tape. After the first insertion on the right side, the tip of the tape is treaded through a Mayo needle and inserted through the pericervical ring posteriorly at the apex of the vaginal wall dissection. The insertion of the tape is then completed on the left side. The apical portion of the tape passes through the cervix and restores the uterus to its anatomical position, acting as a neo uterosacral ligament.

Of the total 14 patients, seven patients presented with vault prolapses and seven with uterovaginal prolapses. The degree of prolapse was assessed intra-operatively using the POP-Q scoring system.



#### **Complications:**

The rate of intra-operative complication was 0%. Two cases of early post-operative complications were of urinary tract infections.

**Table 1: Patient symptomatology.**

Variable	Total number of patients, n= 14
Feeling of a lump	14 (100%)
Pelvic pain	11 (78.5%)
Urgency	10 (71.4%)
Nocturia	10 (71.4%)
Difficulty in voiding	6 (42.8%)
Stress incontinence	8 (57.1%)
Urge incontinence	6 (42.8%)
Difficulty in defecation	6 (42.8%)
Dyspareunia	4 (28.5%)

**Table 2: Patient Demographics.**

Variable	n=14
Mean age	72.5 years
Menopausal status	14 (100%)
Mean weight	75.6 kg
Mean Parity	2
Previous hysterectomy (5 vaginal route, 2 abdominal route)	7(50%)

Symptoms	Total no: of Patients	Vault Prolapse	Uterovaginal prolapse
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	No: of patients cured (n = pts with symps) Percentage cured	No: of patients cured (n = pts with symps) Percentage cured	No: of patients cured (n = pts with symps) Percentage cured
Cure of prolapse	13 (n=14)=92.8%	10 (n=10)=100%	3 (n=4)=75%
Cure of pelvic pain	10 (n=11)=90.9%	6 (n=7)=85.7%	4 (n=4)=100%
Cure of urgency	8 (n=10)=80%	5 (n=6)=83.33%	3 (n=4)=75%
Cure of nocturia	7 (n=10)=70%	4 (n=6)=66.6%	3 (n=4)=75%
Cure of voiding difficulty	5 (n=6)=83.3%	2 (n=3)=66.6%	3 (n=3)=100%
Stress incontinence	6 (n=8)=75%	3 (n=4)=75%	3 (n=4)=75%
Urge incontinence	5 (n=6)=83.3%	3 (n=3)=100%	2 (n=3)=66.6%
Cure of defecation difficulty	5 (n=6)=83.3%	2 (n=3)=66.6%	3 (n=3)=100%
Dyspareunia	3 (n=4)=75%	1 (n=2)=50%	2 (n=2)=100%

**Table 3:**  
Cure Rates:  
Vault Prolapse and Uterovaginal prolapse. Total cure rates (vault

**and uterovaginal prolapses):** 83.3% (p = <0.001).

Vault cure rates: 80% (p = 0.018). Uterovaginal prolapse cure rates: 80% (p = 0.018).

**Quality of life assessment:** All patients reported improvement of physical activities, role activities, social activities, vitality (energy and fatigue), and general mental health following the procedure as assessed by the SF-36 questionnaire.

#### Interpretation of results

The minimally invasive technique of IVS insertion obviates the increased morbidity and complication rates of abdominal or open procedures. The efficacy of this procedure was very high in our experience and both the groups showed a statistically significant success rates for all the presenting complaints (Table 4). This study confirms previous reports of high rate of improvement in symptoms of prolapse, urgency, nocturia, pelvic pain, difficulty in voiding (3).

The cure rates between the two groups of vault and uterovaginal prolapse (Table 4) was not statistically significant and hence further larger studies are necessary. The quality of life assessment by the SF36 questionnaire proved to have a 100% improvement in all the aspects questioned.

#### Concluding message

Prolapse surgery necessitates a more thorough understanding of the anatomical mechanisms of prolapse with a view to developing the least invasive procedure to restore the natural anatomy. The surgical method used in IVS is minimally invasive, safe, simple and has a high cure rate. The surgical modification described negates the need to perform a hysterectomy prior to the repair and is a significant step in developing lesser invasive, but equally effective techniques.

#### References

- (1) Int Urogynecol J 1997; 8:270-278.
- (2) Int Urogynecol J 2001; 12:296-303.

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**HUMAN SUBJECTS:** This study was approved by the BHR NHS TRUST and followed the Declaration of Helsinki Informed consent was obtained from the patients.