

## **SINGLE INCISION TECHNIQUE USING RSD-NEY FOR INSERTION OF TITANIUM COATED EXTRA-LIGHT MESH YIELDS MORE FAVOURABLE CLINICAL OUTCOMES IN PATIENTS SUFFERING FROM VAGINAL VAULT PROLAPSE RESULTING FROM PREVIOUS PELVIC TUMOR SURGERY.**

### Hypothesis / aims of study

The treatment of vaginal vault prolapse in patients who have undergone surgical removal of pelvic malignancies or have received pelvic radiotherapy are hampered by local conditions that create an unsuitable environment for regular polypropylene mesh insertion and this is reflected in the higher rates of dyspareunia and sexual dysfunction among these patients. Therefore, in order to avoid these unpleasant side effects we instituted a titanium coated extra-light mesh in this particular sub-set of patients. We chose this specific type of mesh due to its inert characteristics that do not provoke excessive scar formation as seen with regular polypropylene meshes.

### Study design, materials and methods

A total of 45 women (mean age 63,4 years) underwent vaginal cuff prolapse surgery with Titanium coated extra-light meshes between February 2009 and December 2010. All meshes were inserted via a single vaginal incision and using a reusable suturing device (RSD-Ney) in all cases. 31 patients had vaginal cuff prolapse POP-Q stage IV while 14 patients had POP-Q stage III with a subjective feeling of prolapse. Prior to surgery, 23 patients were diagnosed with stress urinary incontinence and 7 with mixed incontinence while 15 patients did not complain of any urinary incontinence. Furthermore, Bladder emptying difficulties were experienced by 41 patients and chronic infection was reported in 38 patients.

### Results

38 patients which accounted for approximately 84% of the total study group were available for follow up visits after 3 and 6 months post-operatively. Only 2 patients within the study group had recurrence of cystocele. This gives an efficacy rate of approximately 95% in terms of anatomical restoration of the prolapse. The following complications were encountered among our study group:

- 9 x Post operative stress incontinence or de-novo urge syndrome
- 2 x Severe pelvic pain causing difficulty with walking and moving.
- 2 x Dyspareunia
- 3 x Vaginal Erosion of the material

### Concluding message

Titanium coated extralight meshes offered superior outcomes for reconstructive treatment of vaginal vault prolapse among patients with complicated pelvic anatomy following tumor surgery or pelvic irradiation. By using these inert titanium-coated meshes we were able to reduce typical complications like dyspareunia and chronic pelvic pain that adversely effect the lifestyle of these patients following regular polypropylene mesh insertion. We recommend that a larger experimental group of patients need to be followed-up for a longer period of time in order to reach more conclusive evidence of the superiority of this material.

<b>Specify source of funding or grant</b>	<b>Retrospective Study</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>No</b>
<b>This study did not require ethics committee approval because</b>	<b>Retrospective Analysed Data</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>