

## OUTCOMES OF ABDOMINAL AND LAPAROSCOPIC SACROCOLPOPEXIES USING GYNEMESH PS MESH

### Hypothesis / aims of study

The purpose of this study was to evaluate the outcomes and complications of abdominal and laparoscopic sacrocolpopexies using the Gynemesh PS mesh assessing objective and subjective measures from these procedures.

### Study design, materials and methods

This was a retrospective study of patients who underwent abdominal and laparoscopic sacrocolpopexies (SCP) for symptomatic pelvic organ prolapse between January 2004 and June 2008 at a single institution. All procedures were performed by a single surgeon. A low weight, soft, polypropylene mesh PS (ETHICON, INC, Somerville, NJ, USA) was used to attach the vaginal apex to the sacrum. Pre and postoperative POPQ measurements were obtained at baseline and at subsequent follow up visits. Objective failure was defined as POPQ stage 2 or greater. Validated questionnaire on pelvic floor dysfunction was assessed by the subjects.

STATISTICS: Descriptive statistics were used to analyze the demographic details, and all results are presented as frequencies, percentages and standard deviations. Non parametric tests and the Friedman test were used to compare each point of reference of the POP-Q score over time and the Wilcoxon signed rank test was used to measure change in POP-Q. The McNemara- Bowker Test using a normal distribution curve was used to analyze symptoms over time.

### Results and interpretation

Thirty three patients underwent SCP; 28 had abdominal SCP, 4 laparoscopic SCP and 1 cervicohystero-sacropexy. Patients had a mean age of 62.7 years (32-81 years), parity 3.2 (0-7), BMI 27.3 (20.8-35.7) and POPQ stage prolapse 2.82 (2-4). 75% had co-morbid medical problems with diabetes, hypertension and arthritis being most common. Seventeen had previous abdominal hysterectomies and 15 previous vaginal hysterectomies. Eighteen patients (55%) had previous pelvic reconstructive surgery.

Concomitant surgery was performed in 85% of cases and included TVT, Burch colposuspension, paravaginal and incisional hernia repair. 82% required adhesiolysis. Intraoperative complications included 1 anaesthetic problem, 3 cystotomies and 1 small bowel injury which were repaired. Postoperative complications occurred in 21% of patients (atrial fibrillation, myocardial infarction, ileus, wound infection and febrile morbidity). The mean operative time was 132.4 minutes (96-231) and hospital stay 6.2 days (4-10). Two deaths were recorded – one from undiagnosed tight aortic stenosis with myocardial infarction on day 2, and the other from cardiac failure (diabetic, hypertensive and previous myocardial infarction) on day 1.

Follow up data with postoperative POPQ measurements were available on 31/33 patients (93.9%) at 3 months, 29/33 (87.9%) at 6 months and 25/33 (76 %) at 12 months. One patient had a vaginal mesh exposure at 5 months (abdominal-vaginal approach). There was significant changes in the mean POPQ scores (Aa, Ba, C, Ap, Bp) from preoperative to 3 months post surgery and this was maintained at 6 and 12 months ( $P < 0.001$ ). There was no failures at POPQ point C. There was one reoperation at 9 months for symptomatic cystocele after laparoscopic SCP. The most common symptom "something or lump coming down from vagina" was identified in 93.9% of patients and resolved in all patients ( $P < 0.001$ ). Backache ( $P = 0.125$ ) and constipation ( $P = 0.122$ ) did not show statistical improvement post surgery.

### Concluding message

SCP procedures (abdominal and laparoscopic) using Gynemesh PS propylene is an effective procedure for the management of symptomatic apical vaginal prolapse and is associated with good anatomical and functional outcome. There was no associated mesh erosion. The single case of mesh exposure was from the abdominal/vaginal approach. Subjective assessment of outcome coincided with objective outcomes. Careful patient selection is required for patients undergoing SCP because of the associated morbidity and mortality that can arise.

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<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>University of KwaZulu-Natal Biomedical Research Ethics Committee</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>No</b>