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A COMPARISON OF SHORT TERM SEXUAL FUNCTION OUTCOMES FOR PATIENTS UNDERGOING THE TRANSVAGINAL MESH PROCEDURE USING THE STANDARD POLYPROPYLENE MESH VS A HYBRID POLYPROPYLENE/POLIGLECAPRONE MESH

Hypothesis / aims of study
To assess sexual function outcomes in patients undergoing the transvaginal mesh (Prolift) procedure using either the standard polypropylene mesh or a hybrid mesh composed of polypropylene and absorbable poliglecaprone 25 (Monocryl) fibers (Prolift+M) for pelvic organ prolapse through a comparison of pre- and post-operative responses to the Pelvic Organ Prolapse Urinary Incontinence Sexual Questionnaire (PISQ-12).

Study design, materials and methods
This is a retrospective cohort study assessing short-term sexual health as measured by the PISQ-12 following surgical correction of pelvic organ prolapse. Patients that underwent the Prolift+M surgery between 8/13/08 and 6/06/09 were included and compared to age-matched, sexually active controls that underwent the standard Prolift procedure between 2/14/05 and 6/06/09. All patients completed the PISQ-12 questionnaire and had POPQ measurements taken preoperatively and at 4 months postoperatively.

Results
Out of a total of 102 patients who met inclusion criteria, 71 patients had completed both preoperative and postoperative PISQ forms (n=39 standard mesh, n= 32 +M mesh). There is no significant difference in preoperative PISQ scores, age, BMI, POPQ points Ba, Bp, C and tvl (total vaginal length). There is also no significant difference in change in vaginal length from pre-op to post-op between the two groups. There is a significant improvement in postoperative sexual desire (PISQ #1), comfort with intercourse (PISQ #5), and overall sexual function (Total PISQ Score)with the hybrid mesh compared to the standard mesh at 4 months postoperatively.

Table 1 Comparison of Preoperative Variables

Pre-op Variables	**Standard Mesh Mean (SD) N=39**	**Hybrid Mesh Mean (SD) N=32**	**P Value***
Age	56.53 (±8.33)	56.67 (±8.02)	0.93
BMI	27.65 (±6.41)	26.17 (±4.025)	0.17
POPQ Ba	1.20 (±2.01)	0.95 (±1.72)	0.51
POPQ Bp	3.18 (±0.83)	3.32 (±0.64)	0.37
POPQ C	-3.51 (±3.72)	-3.74 (3.59)	0.75
POPQ tvl	8.67 (±1.23)	9.09 (±1.23)	0.09

**P* values calculated using Independent-Samples T Test

Table 2 Differences in Postoperative and Preoperative PISQ Scores after Transvaginal Mesh Placement

PISQ Question #	**Standard Mesh Mean (SD) N=39**	**Hybrid Mesh Mean (SD) N=32**	***P* value ***
1	0.10 (±0.78) ***P*=0.42**+	0.54 (±0.79) ***P*=0.001**+	**0.03**
2	0.13 (±0.99)	0.44 (±0.97)	0.20
3	0.17 (±0.77)	0.27 (±0.87)	0.63
4	0.16 (±0.90)	0.13 (±0.90)	0.88
5	-0.38 (±1.71) ***P*=0.17**+	0.56 (±1.31) ***P*=0.04**+	**0.02**
6	0.39 (±0.92)	0.61 (±0.95)	0.32
7	0.38 (±1.19)	0.66 (±0.97)	0.30
8	1.41 (±1.52)	1.58 (±1.36)	0.63

9	0.5122 (±1.18579)	0.7500 (1.14)	0.39
10	0.0000 (±1.02470)	0.19 (±1.00)	0.44
11	0.0750 (±0.91672)	0.17 (±0.38)	0.59
12	0.5278 (±0.99960)	0.76 (±0.87)	0.33
Total PISQ Score	3.00 (±5.40) ***P*=0.001**+	6.25 (±5.57) ***P*<0.001**+	**0.02**

P values calculated using:

* Independent-Samples T Test,

+paired T test

Interpretation of results

In this cohort, overall sexual function (Total PISQ score) improves with the use of transvaginal mesh. This improvement is greater with the use of a hybrid mesh compared to the standard mesh. There is also a significant improvement in postoperative sexual desire (PISQ #1), comfort with intercourse (PISQ #5) with the hybrid mesh compared to the standard mesh at 4 months postoperatively.

Concluding message

Pelvic floor-related sexual health as defined by changes in the PISQ-12 improves with treatment of prolapse using the transvaginal mesh technique. This improvement appears to be greater in the short-term when a hybrid mesh composed of permanent and absorbable fibers is used when compared to the traditional all-polypropylene mesh in this small cohort study.

References

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Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**St. Luke's Hospital and Health Network Institutional Review Board**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**