RESULTS: Between 2011 and 2016, a total of 175 patients underwent robotic sacrocolpopexy for POP-Q Stage IV VVP. 50 patients undergoing repair with a heavy mesh weight (52 g/m2, 527 microns thick, and a suture pull out strength of 18.3 N) were matched to 50 patients undergoing repair with a lighter weight mesh ( 25 g/m2, 200 microns thick, and suture pull out strength of 23.3 N). At two year follow-up, anatomic success for apical prolapse was 100% and 2 patients (4%) in each group were found to have residual Grade 2 anterior prolapse and 2 patients (4%) in each group found to have Grade 2 posterior prolapse. De novo SUI was found in 5 patients (10%) in the heavy mesh group and 4 patients (8%) in the lighter mesh group. All de novo SUI patients did not have a mid urethral sling, MUS, placed at the time of the procedure. There was one mesh erosion in the light weight mesh group in a salvage patient that underwent concomitant pre-existing mesh removal at the time of surgery.

CONCLUSIONS: Although the two Y-meshes are markedly different in their weight, surface area, thickness and suture pullout strength, there was no observed significant difference in the anatomic success of repair, the rate of de novo stress urinary incontinence or mesh erosion. The rates of de novo SUI seen in this study, have led us to perform a MUS procedure at the time of sacrocolpopexy for all Grade IV prolapse patients.

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## PD17-04
### POLYVINYLDENFLUORID (PVDF) VERSUS POLYPROPYLENE (PP) MESH FOR SACROCOLPOPEXY

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INTRODUCTION AND OBJECTIVES: The aim of this study was to compare a polymer mesh made of Polyvinyldenfluorid to polypropylene, the mesh material most commonly used in pelvic organ prolapse (POP) surgical repair, in terms of anatomical and functional results as well as safety, in patients who underwent sacrocolpopexy (SC)

METHODS: This series included women who underwent SC for stages III or IV POP, according to the POP- Quantification (POP-Q) system, from 2005 to 2015, using either PP (Cousin Biotech Sacromesh®) or PVDF (DynaMesh®-PRS) mesh. All women were preoperatively evaluated with history, physical examination and urodynamics. Urinary and sexual symptoms were assessed with the Urogenital Distress Inventory (UDI), the Incontinence Impact Questionnaire (IIQ-7) and the Female Sexual Function Index (FSFI) questionnaire. At the follow-up all patients were recalled and re-assessed with physical examination and the same questionnaires also used at baseline. Patients' satisfaction was recorded with the VAS score and the Patient Global Impression−Improvement (PGI-I) questionnaire.

RESULTS: Between January and May 2016, 136 patients with at least 1 year follow-up were re-assessed: 73 who had polypropylene mesh POP repair (PP group) and 63 who had PVDF mesh repair (PVDF group). The only significant difference between the two groups was duration of follow-up: 94.9±21.7 months for the PP and 29.8±13.8 months for the PVDF group because the last one was marketed later. Postoperative anatomical correction rates (success: POP stages 0 or I), voiding and storage symptoms, urgency and stress incontinence, questionnaire scores and mesh erosion rates are reported in Table 1. Most outcomes were not significantly different between the two groups with the exception of storage symptoms, sexual symptoms and UDI-6 scores that were better in the PVDF group. Subjective patient satisfaction was high in both groups with no significant differences between them

CONCLUSIONS: Our results suggest that PVDF is at least as safe as polypropylene when used in POP repair. PVDF filaments have an excellent biocompatibility reducing adverse foreign body reactions such as granuloma formation, are associated with reduced bacterial colonization and maintain their tensile strength longer than polypropylene, that may explain the better results of PVDF in storage and sexual symptoms

**Table 1: Postoperative outcome for PP and PVDF groups**

| Outcomes | PP group | PVDF group | P value |
|---|---|---|---|
| Apical compartment stages 0 & I [n (%)] | 73/73(100) | 63/63(100) | n.v |
| Anterior compartment stages 0 & I [n (%)] | 67/73(91.7) | 55/63(87.3) | 0.67 |
| Posterior compartment stages 0 & I [n (%)] | 70/73(95.8) | 62/63(98.4) | 0.20 |
| Storage symptoms (SS) [n (%)] | 6/73 (8.2) | (0) | 0.02* |
| Voiding Symptoms (VS) [n (%)] | 5/73 (6.8) | 7/63(11.1) | 0.38 |
| Urgency Urinary Incontinence (UUI) [n (%)] | 5/73 (6.8) | 10/63 (15.8) | 0.09 |
| Stress Urinary Incontinence (SUI) [n (%)] | 14/73 (19.1) | 6/63 (9.5) | 0.5 |
| Sexual dysfunction (SD) [n (%)] | 12/73 (16.4) | (0) | 0.001* |
| UDI-6 score [median(range)] | 1 (0-14) | 0 (0-4) | 0.04* |
| IIQ-7 score [median(range)] | 0 (0-17) | 0 (0-10) | 0.12 |
| FSFI score [median(range)] | 15.0 (1.2-30.3) | 16.3 (1.2-34.8) | 0.70 |
| Mesh erosion rate [n (%)] | 1/73 (1.3) | 2/63 (3.1) | 0.47 |
| PGI-I score [mean± SD] | 1.5±1.0 | 1.8±0.5 | 0.40 |
| VAS score [mean± SD] | 8.6±1.5 | 9.0±1.4 | 0.10 |

*Significant p-value <0.05

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## PD17-05
### LAPAROSCOPIC VERSUS ROBOTIC ASSISTED SACROCOLPOPEXY: A RANDOMIZED, CONTROLLED TRIAL

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INTRODUCTION AND OBJECTIVES: The present randomized study compares Laparoscopic sacropexy (LSC) and Robotic assisted sacropexy (RASC) in women with advanced pelvic organ prolapse (POP) to demonstrate the equivalence between the two techniques

METHODS: Consecutive patients affected by symptomatic POP stage>II according to the POP-Q classification were prospectively randomized to test the clinical equivalence of RASC and LS. All women were preoperatively evaluated with history and physical examination. Urinary and sexual symptoms were assessed with the Urogenital Distress Inventory (UDI), the Incontinence Impact Questionnaire (IIQ-7) and the Female Sexual Function Index (FSFI) questionnaire. As primary outcome we evaluated the anatomical results considering as failure a POP>2 stage. Then we evaluated the difference between the two groups in terms of hospital stay length, blood loss, operating time, presence of voiding or storage symptoms and sexual function through the aforementioned questionnaires

RESULTS: To date 21 patients have been randomized to RASC and 19 to LSC. The mean follow-up was 23,36 months. No significant inter-group differences emerged in the pre-operative evaluations of age (mean 63.5 vs 58.82 yrs for RASC and LSC, p=0.06) and BMI (mean 24.59 vs 25.41 kg/m2 for RASC and LSC, p=0.55). The objective success rate was 81% for RASC vs 78,9% for LSC (p=0.6), 85% for RASC vs 63,2% for LSC (p=0.8) and 100% for RASC vs 94,7% for LSC (p=0.57) for cystocele, rectocele and point c/D repair respectively. Although not significant, operating time was longer for LSC (mean 213 min for LSC vs 184 min for RASC, p=0.11) and intraoperative blood loss was higher in RASC (mean 32 ml for RASC vs 47 ml for LSC, p=0.46). No difference emerged in hospital stays (mean 3.8 days for LSC vs 3.9 days for RASC, p=0.8). Functional results are reported in table 1. No major complications were detected, only 2 grade III complication according to Clavien-Dindo classification has been reported in the LSC group (1 bladder injury and 1 mesh exposure). The subjective success rate was very high, 100% of patients of both groups