

**TABLE 1: PATIENT BASELINE CHARACTERISTICS & SATISFACTION COMPARISON**

PARAMETER	XI	SP	P VALUE
MEDIAN AGE, YEARS (IQR)	64 (57-67)	64 (57-69)	0.6
MEDIAN PSA, NG/ML (IQR)	5.3 (4.3-6.8)	5.5 (4.3-7.8)	0.8
MEDIAN BMI, KG/M <sup>2</sup> (IQR)	25.2 (24.1-26.7)	25.3 (23.2-27.3)	0.4
CHARLSON COMORBIDITY INDEX, N (%)			
0-1	22 (31)	23(32)	1
2-3	46 (65)	46 (65)	1
≥4	3 (4.2)	2(2.8)	1
RESPONSE RATE, N (%)	61/71 (86)	52/71 (73)	
MEDIAN SSQ1 (IQR) <sup>a</sup>	5 (4-5)	5 (4-5)	0.76
MEDIAN SSQ2 (IQR) <sup>a</sup>	5 (4-5)	5 (4-5)	0.27
MEDIAN SSQ3 (IQR) <sup>a</sup>	5 (4-5)	5 (4-5)	0.21
MEDIAN SSQ4 (IQR) <sup>a</sup>	4 (4-5)	5 (4-5)	0.45
MEDIAN SSQ5 (IQR) <sup>a</sup>	5 (4-5)	4.5 (4-5)	0.53
MEDIAN SSQ6 (IQR) <sup>a</sup>	5 (4-5)	5 (4-5)	0.25
MEDIAN SSQ7 (IQR) <sup>a</sup>	5 (4-5)	5 (5-5)	0.11
MEDIAN SSQ8 (IQR) <sup>a</sup>	5 (5-5)	5 (5-5)	0.20
MEDIAN SSQ TOTAL SCORE (IQR) <sup>b</sup>	38 (32-40)	38 (34-40)	0.24
MEDIAN GRI-1 (IQR) <sup>c</sup>	5 (4-5)	5 (5-5)	<0.001

<sup>a</sup>Score ranges from 1-5 <sup>b</sup>Score ranges from 8-40  
 Interquartile Range (IQR), Prostate Specific Antigen (PSA), Body Mass Index (BMI),  
 Surgical Satisfaction Questionnaire (SSQ-8), Global Robotics Institute Question (GRI-1).

**Source of Funding:** NA

**MP15-03  
 A SURGEON FEEDBACK SYSTEM (AMPLIO) ASSESSING FUNCTIONAL AND ONCOLOGICAL OUTCOMES FOR RADICAL PROSTATECTOMY**

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**INTRODUCTION AND OBJECTIVE:** The outcomes of radical prostatectomy (RP) are intimately influenced by subtle changes in surgical technique. Achieving an optimal outcome implies a complete cancer excision with preservation of urinary and sexual function, which sometimes comes into confrontation. This is associated with a steep learning curve and therefore great variation amongst surgeons. We hypothesize that providing the surgeons with continuous feedback on their outcomes and that of their peers could help reduce variation and improve performance.

**METHODS:** We present a feedback platform (AMPLIO) that shows surgeons their functional and oncological outcomes compared to that of peers after RP. We prospectively collect demographic, clinical, pathological and quality of life data on the approximately 5400 radical prostatectomies performed at our center from 2013 to 2019. The AMPLIO platform captures and analyzes this data providing surgeons with an individual feedback on their outcomes.

**RESULTS:** Feedback is provided through graphs in an anonymous way with comparison to that of peers. Surgeons can voluntarily review their personal surgical performance, assess their patients' outcomes and compare their outcomes to the group's median and to each participating surgeon. The AMPLIO platform uses statistical modeling to adjust for patient and disease characteristics and displays outcomes after risk adjustment. Performance can be tabulated to show the rate of

biochemical vs rates potency and full continence. This allows surgeon to gauge their decision making and provides them with insights regarding how well their surgical decision making balances oncological outcomes and quality of life preservation both individually and as group. The AMPLIO platform display showed variation between surgeons.

**CONCLUSIONS:** We have developed a surgeon performance feedback system. This concept is widely used as a quality improvement tool in other fields. We hope to find that, once surgeons are aware of their outcomes, they will find ways to improve them.

**Source of Funding:** No

**MP15-04  
 THE EFFECT OF MICROPOROUS POLYSACCHARIDE HEMOSPHERES ON PATIENT OUTCOMES FOLLOWING ROBOT-ASSISTED RADICAL PROSTATECTOMY**

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**INTRODUCTION AND OBJECTIVE:** Controlling bleeding without disturbing the anatomy and function of the structures in the prostate bed remains a significant challenge during radical prostatectomy (RP).

**METHODS:** The outcomes of 862 patients having robot-assisted RP (RARP) during a 5-year period were analyzed from a prospective database. The last 422 patients in the series had 5 g powdered microporous polysaccharide hemospheres (MPH) (Arista (TM), Becton Dickinson, USA) applied to the prostate bed at the end of surgery and the first 440 patients (control group) did not. Continence was defined as no pads and potency as the ability to have penetrative sex with or without PDE5 inhibitors in previously potent, non-diabetic men aged <70 years following bilateral intra- or inter-fascial neurovascular bundle (NVB) preservation.

**RESULTS:** The control group contained higher-risk patients who had less nerve sparing done with a greater use of the Retzius-sparing approach (p=<0.01) but the two groups otherwise had similar demographic characteristics. Patients who received MPH had a trend towards a lower post-op. transfusion rate (p=0.12) and fewer total complications from post-operative bleeding (p=0.07) but these differences did not reach statistical significance. However, they had a significantly shorter operating time (p=<0.01), lower intra-operative blood loss, (p=<0.01), shorter hospital stay (p=<0.01), better continence and potency (p=<0.01) at 4 weeks, and better potency (p<0.01), trifecta (p=<0.01) and pentafecta (p=<0.01) rates at 1 year.

**CONCLUSIONS:** The mechanism of the superior potency observed in the MPH group is unclear and may be due to less damage to the NVB following its preservation by clips and sutures, less local inflammation due to coating of the NVBs by a gel matrix, greater surgical experience or most likely a combination of these factors. The better early continence observed in the MPH group may be a consequence of better NVB preservation and its recognized beneficial effect on external urinary sphincter function. These results await further investigation within a randomized controlled trial

	control	+ Arista	P
n	440	422	
age (years)	63 (34-78)	62 (35-79)	0.30
BMI (kg/m <sup>2</sup> )	27.4 (19-40)	27.5 (19-41)	0.97
<u>d'Amico risk group</u>			
low	47 (10.7%)	51 (12.1%)	0.52
intermediate	227 (51.6%)	268 (63.5%)	<0.01
high	179 (40.7%)	103 (24.4%)	<0.01
<u>Approach</u>			
anterior	98 (22.2%)	156 (37.0%)	<0.01
posterior (RS)	342 (77.8%)	266 (63.0%)	<0.01
<u>NVB preservation</u>			
0	58 (13.2%)	20 (4.7%)	<0.01
1	81 (18.4%)	69 (16.4%)	0.47
2	301 (68.4%)	333 (78.9%)	<0.01
op. time (min)	188 (95-360)	142 (85-320)	<0.01
blood loss (ml)	236 (30-2800)	201 (30-1250)	<0.01
hospital stay (n)	1.8 (1-12)	1.7 (1-5)	<0.01
catheterization (d)	10 (6-28)	12 (3-42)	<0.01
Post-op. tx	6	1	0.12
<u>Symptomatic pelvic hematoma</u>			
pain	1	1	1.00
infection	2	1	1.00
disrupted anastomosis	4	1	0.37
total	7	1	0.07
FU (months)	25.2 (12-60)	18.0 (3-24)	
<u>Continent</u>			
+4 weeks	273/440 (62.0%)	315/422 (76.4%)	<0.01
+ 1 year	423/437 (96.7%)	211/216 (97.7%)	0.63
<u>Potent</u>			
+4 weeks	16/253 (6.3%)	62/223 (27.8%)	<0.01
+1 year	65/193 (33.7%)	75/96 (78.1%)	<0.01
Trifecta +1 year	63/193 (35.8%)	51/96 (53.1%)	<0.01
Pentafecta +1 year	51/193 (26.4%)	44/96 (45.8%)	<0.01

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### MP15-05

#### PREOPERATIVE PARAMETERS TO PREDICT THE DEVELOPMENT OF SYMPTOMATIC LYMPHOCELES AFTER RADICAL PROSTATECTOMY

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**INTRODUCTION AND OBJECTIVE:** To investigate, if preoperative parameters exist for the development of symptomatic lymphoceles (SL) after radical prostatectomy (RP) and pelvic lymph node dissection (PLND) and thereby to optimize the therapeutic regimen by modifying the surgical technique for these patients.

**METHODS:** Pre- and postoperative clinical and pathological data of 592 patients who underwent RP and PLND were retrospectively evaluated. Included parameters were age, BMI, PSA, PSA ratio, PSA density, number of resected and/or positive lymph nodes, previous abdominal surgery, previous pelvic radiotherapy, previous anticoagulation and surgical approach. The statistical analysis was performed by binary logistic regression.

**RESULTS:** 59 patients (10%) developed an SL, of which 57 underwent open retropubic prostatectomy (RRP) and 2 underwent robot-assisted radical prostatectomy (RARP). Multivariate logistic regression revealed the following parameters as statistically significant independent risk factors: PSA (Odds Ratio [OR]=2.23, 95% CI [1.25; 5.04], p=0.04), number of resected lymph nodes (OR = 1.47, 95% CI [1.10; 1.97], p<0.01), previous abdominal surgery (OR=2.58, 95% CI [1.38; 4.91], p<0.01) and surgical approach (OR = 0.08, 95% CI [0.01; 0.27], p<0.01). Previous anticoagulation with warfarin or NOACs almost showed statistically significant results (OR = 2.39, 95% CI [0.92; 5.51], p=0.05).

**CONCLUSIONS:** The risk for SL formations might be predictable considering preoperative risk factors such as PSA, previous abdominal surgery and anticoagulation. The surgical approach

represented a significant risk so that RARP should be the procedure of choice if possible. If RRP is considered, patients at increased risk for SL may benefit from peritoneal fenestration during RP to reduce the postoperative complications.

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### MP15-06

#### LONGER RESIDUAL URETHRAL LENGTH IN ROBOT-ASSISTED RADICAL PROSTATECTOMY SIGNIFICANTLY CONTRIBUTING TO POSTOPERATIVE URINARY CONTINENCE RECOVERY

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**INTRODUCTION AND OBJECTIVE:** Prostate cancer is a malignant tumor that most commonly occurs in men. In Japan, 91,215 men developed prostate cancer in 2017. Among all carcinomas, the number of patients with prostate cancer was the highest. In 2018, 12,250 men died of prostate cancer, making it the sixth among all cancer deaths. Surgery or radiation therapy is considered for the treatment of localized prostate cancer. In Japan, robot-assisted radical prostatectomy (RARP) has been performed in the health insurance since 2012, and the number of cases is increasing. Compared with conventional open surgery, RARP allows delicate surgical procedures with non-shaky forceps in an enlarged field of view. Despite improvements in such surgical techniques, incontinence occurring after RARP remains a significant, quality-of-life complication. Previous studies have examined factors associated with achieving urinary continence after a radical prostatectomy, including patient selection; preoperative pelvic floor muscle exercises; operative procedures such as intraoperative preservation, reconstruction, and reinforcement; postoperative pelvic floor muscle exercises; and duration of urinary catheter placement. Therefore, this study aimed to clarify factors associated with urinary continence recovery using clinical records and RARP video databases including patient characteristics and surgical skill outcomes such as preservation of cavernous nerves of the penis, puboprostatic ligament, endopelvic fascia, and urethral length; bunching suture of the dorsal vein complex; and vesicourethral anastomotic leakage in our department. It is hoped that the analysis results will lead to an improved urinary continence recovery rate.

**METHODS:** Among 213 patients with preoperatively diagnosed localized prostate cancer who underwent RARP in our institution, we retrospectively reviewed their medical records and RARP video database. Urinary continence recovery was defined as the use of <1 sheet of 20-ml pad per day. Urethral length was semiquantitatively measured using the lateral width of a 16-Fr urethral balloon catheter while cutting the urethra on a video screen. In addition, by reviewing intraoperative RARP video database, other surgical skill outcomes such as preservation of the cavernous nerves of penis, puboprostatic ligament, and endopelvic fascia; bunching suture of the dorsal vein complex; and vesicourethral anastomotic leakage were also collected. In univariate analysis, the Kaplan–Meier method was used to draw the urinary continence recovery rate curve, and the log-rank test was used. Multivariate analysis was performed using the Cox proportional hazards model, and p < 0.05 was significant.

**RESULTS:** In univariate analysis, the residual urethral length of >16 mm was a statistically significant factor that influenced urinary continence recovery (p=0.026). It also remained statistically significant in the multivariate analysis (hazard ratio 1.377, p=0.042). One year postoperatively, the recovery rate from urinary continence was 79.0% for patients with >16 mm and 66.5% for patients with ≤16 mm.

**CONCLUSIONS:** These results suggest that patients with longer residual urethral length in RARP have a significantly higher rate of postoperative urinary continence recovery.

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