821

Kim H W¹, Kim S H¹, Choi J B², Kim H G³, Seo J T⁴, Kim J C⁵, Lee S⁶, Cho S Y¹, Lee D H⁵

1. The Catholic University of Korea, St. Paul's Hospital, 2. Department of Urology, Ajou University School of Medicine, Suwon, Korea, 3. Department of Urology, Konkuk University School of Medicine, Seoul, Korea, 4. Department of Urology, Cheil General Hospital & Women's Healthcare Center, Kwandong University College of Medicine, Seoul, Korea, 5. Department of Urology, College of Medicine, The Catholic University of Korea, 6. Department of Urology, School of Medicine, Kyung Hee University

THE EFFECT OF SURGICAL OUTCOME IN HOLEP ACCORDING TO BOOI AND BCI

Hypothesis / aims of study

This study aims to analyse how bladder outlet obstruction index(BOOI) and bladder contractility index (BCI) affect on surgical outcome for BPH patient who were treated Homium Laser Enucleation of the Prostate (HoLEP).

Study design, materials and methods

We classified the 166 patients, who were treated HoLEP and observed more than 6 months, into group I (BOOI ≥ 40 and BCI ≥ 100,

n=45), group II (BOOI \geq 40 and BCI<100, n=24), group III (20<BOOI<40 and BCI \geq 100, n=18) and group IV (20<BOOI<40 and BCI<100, n=79) based on urodynamic study result. Patient's characteristics including volume of prostate, PSA, IPSS, maximum urinary flow rate and residual urine volume compared in each group. And we also compared IPSS, maximum urinary flow rate, residual urine volume before and 6 months after surgery.

Results

There was no significant difference comparing age, PSA, IPSS, maximum urinary flow rate and residual urine volume among each group. The prostate volume, ranked in ascending order of group, are as follows: 71.9 ± 37.1 ml, 61.5 ± 21.9 ml, 41.2 ± 13.7 ml

and 40.9 ± 14.9 ml, it had significantly disparity between group I and III (p=0.004), group I and IV (p=0.000), and group II and IV 9p=0.018).

Using repeated measure ANOVA, we found that IPSS, maximum urinary flow rate and residual urine volume were significantly improved within group in each group after surgery except IPSS storage subscore between group II and group III and residual urine volume. And the degree of improvement among each group was not different. (Table 1).

Concluding message

HoLEP improved significantly IPSS, maximum urinary flow rate and residual urine volume. Comparison of surgical outcome according to degree of BOOI and BCI was not significantly different.

IPSS-total GI 20.24±7.42 8.80±9.42 0.000' GI GII GII GIV IPSS-total GI 16.75±7.95 9.94±6.73 0.013' 0.934 0.839 0.991 0.835 GII 17.20±7.40 7.60±4.65 0.003' 0.839 0.991 - 0.724 GIV 19.13±7.40 10.28±8.46 0.000' - 1.000 0.972 0.956 IPSS-voiding GI 11.86±5.11 4.63±6.59 0.000' - 0.983 0.969 GIV 12.12±5.14 5.69±5.21 0.000' 0.972 0.983 0.969 GIV 12.12±5.14 5.46±5.79 0.000' 0.972 0.983 - 0.853 GIV 12.12±5.14 5.46±5.79 0.000' 0.956 0.969 0.853 - IPSS-storage GI 8.8±3.87 4.17±3.52 0.000' 0.473 0.420 0.957 0.578 - IPSS-QoL GII 3.40±1.50				Postop 6month	P-value					
IPSS-total G I 20.24±7.42 8.80±9.42 0.000' - 0.934 0.839 0.995 G III 16.75±7.95 9.94±6.73 0.013' 0.934 - 0.991 0.835 G III 17.20±7.40 7.60±4.65 0.003' 0.839 0.991 - 0.724 G IV 19.13±7.40 10.28±8.46 0.000' 0.995 0.835 0.724 - IPSS-voiding G I 11.86±5.11 4.63±6.59 0.000' - 1.000 0.972 0.983 0.969 IPSS-voiding G II 11.20±4.59 4.10±2.38 0.000' 0.972 0.983 - 0.853 G IV 12.12±5.14 5.46±5.79 0.000' 0.956 0.969 0.853 - IPSS-storage G I 8.38±3.87 4.17±3.52 0.000' 0.956 0.969 0.853 - IPSS-QL G II 5.88±3.91 4.25±2.52 0.107 0.473 - 0.992 0.578			Preoperative		within	between group				
IPSS-totalG II16.75±7.959.94±6.730.013'0.9340.9910.835G III17.20±7.407.60±4.650.003'0.8390.9910.724GIV19.13±7.4010.28±8.460.000'0.9950.8350.724-IPSS-voidingG II11.86±5.114.63±6590.000'1.0000.9720.9830.969IPSS-voidingG II10.88±4.765.69±5.210.000'0.9720.9830.8530.853IPSS-voidingG III11.20±4.594.10±2.380.000'0.9560.9690.853G II5.88±3.914.25±2.520.000'0.9560.9690.8530.578IPSS-voidingG III5.88±3.914.25±2.520.1070.4730.4200.5780.578G II5.09±3.1360.000'0.9570.5780.5780.578IPSS-QoLG II3.09±1.502.06±1.340.001'0.9570.590.578G II3.40±1.502.06±1.340.000'1.0000.9940.4320.432IPSS-QoLG III4.24±0.892.65±1.580.000'1.0000.9940.4320.432IPSS-QoLG III7.31±4.5611.54±7.040.028'0.4730.4200.9570.578IPSS-QoLG III6.14±0.892.65±1.580.000'0.1020.4520.578IPSS-QOLG III </th <th></th> <th></th> <th></th> <th></th> <th>group</th> <th>GI</th> <th>GII</th> <th>GIII</th> <th>GIV</th>					group	GI	GII	GIII	GIV	
IPSS-totalG III17.20±7.407.60±4.650.003*0.8390.991.0.724GIV19.13±7.4010.28±8.460.000*0.9950.8350.724.IPSS-totalG I11.86±5.114.63±6.590.000*.1.0000.9720.9830.969IPSS-total0.108±4.765.69±5.210.000*0.9720.983.0.9630.969IPSS-total1.10±4.594.10±2.380.000*0.9720.983.0.853.IPSS-total1.20±4.594.10±2.380.000*0.9560.9690.853.IPSS-total6 III11.20±4.594.10±2.380.000*0.9560.9690.853.IPSS-total6 III3.8±3.874.17±3.520.000*0.9560.9690.853.IPSS-total6 III5.88±3.914.25±2.520.1070.473.0.9920.578G III5.88±3.914.76±3.490.000*0.9670.6590.578.G III5.88±3.911.93±1.360.000*0.9670.6590.578.JPSS-QoLG II3.78±0.931.93±1.360.000*1.0000.9941.0240.432JPSS-QoLG II4.14±0.892.65±1.580.000*1.0000.9941.920.432JPSS-QoLG III4.14±0.892.65±1.580.000*1.0020.1620.4320.432JPSS-QoLG III4.14±0.892.65±1.58	IPSS-total	GΙ	20.24±7.42	8.80±9.42	0.000+	-	0.934	0.839	0.995	
G III 17.20±7.40 7.60±4.65 0.003 ⁺ 0.839 0.991 - 0.724 GIV 19.13±7.40 10.28±8.46 0.000 ⁺ 0.995 0.835 0.724 - IPSS-voiding G I 11.86±5.11 4.63±6.59 0.000 ⁺ - 1.000 0.972 0.983 0.969 IPSS-voiding G II 11.86±5.11 4.63±6.59 0.000 ⁺ 0.000 ⁺ 0.983 0.969 G II 11.20±4.59 4.10±2.38 0.000 ⁺ 0.972 0.983 0.969 G IV 12.12±5.14 5.46±5.79 0.000 ⁺ 0.975 0.853 - IPSS-storage G I 8.38±3.87 4.17±3.52 0.000 ⁺ 0.473 0.420 0.992 0.578 G II 5.88±3.91 4.25±2.52 0.107 0.473 0.420 0.992 0.578 G III 3.78±0.93 1.93±1.36 0.000 ⁺ 0.420 0.994 0.102 0.152 JPSS-QoL G II 3.40±1.50 <		G II	16.75±7.95	9.94±6.73	0.013+	0.934	-	0.991	0.835	
IPSS-voiding G I 11.86±5.11 4.63±6.59 0.000 ⁺ - 1.000 0.972 0.956 IPSS-voiding G II 10.88±4.76 5.69±5.21 0.009 ⁺ 1.000 - 0.983 0.969 G II 11.20±4.59 4.10±2.38 0.000 ⁺ 0.972 0.983 - 0.853 G IV 12.12±5.14 5.46±5.79 0.000 ⁺ 0.956 0.969 0.853 - IPSS-storage G I 8.38±3.87 4.17±3.52 0.000 ⁺ 0.473 - 0.992 0.659 G III 6.00±4.32 3.50±3.41 0.195 0.420 0.992 - 0.578 G IV 7.02±3.79 4.76±3.49 0.000 ⁺ 0.996 0.578 - IPSS-QoL G II 3.40±1.50 2.06±1.34 0.031 ⁺ 0.996 - 0.994 0.152 G III 4.20±0.79 1.60±1.35 0.000 ⁺ - 0.473 0.420 0.994 - G IV 8.48±3.		G III	17.20±7.40	7.60±4.65	0.003+	0.839	0.991	-	0.724	
IPSS-voidingG II10.88±4.765.69±5.210.009'1.000·0.9830.969G III11.20±4.594.10±2.380.000'0.9720.983·0.853G IV12.12±5.145.46±5.790.000'0.9560.9690.853·JPSS-storageG I8.38±3.874.17±3.520.000'·0.4730.4200.957G II5.88±3.914.25±2.520.1070.473·0.9920.5780.578G III6.00±4.323.50±3.410.1950.4200.9920.5780.102G IV7.02±3.794.76±3.490.000'0.9570.6590.5780.102JPSS-QoLG II3.40±1.502.06±1.340.031'0.996·0.9940.152G III3.40±1.502.06±1.340.000'1.0000.994·0.4320.432G III3.40±1.502.06±1.340.000'1.0000.994·0.4320.432G III3.40±1.502.06±1.350.000'1.0000.994·0.4320.432G III3.40±1.502.06±1.580.000'0.1020.1520.4320.578·GIIII10.61±3.322.00±8.700.001'0.4200.992·0.578·GIIII10.61±3.322.00±8.700.001'0.4200.992·0.578·GIIII10.61±3.322.00±8.700.001'0.4200.999·· <th< th=""><td>GIV</td><td>19.13±7.40</td><td>10.28±8.46</td><td>0.000+</td><td>0.995</td><td>0.835</td><td>0.724</td><td>-</td></th<>		GIV	19.13±7.40	10.28±8.46	0.000+	0.995	0.835	0.724	-	
IPSS-voiding G III 11.20±4.59 4.10±2.38 0.000 ⁺ 0.972 0.983 - 0.853 G IV 12.12±5.14 5.46±5.79 0.000 ⁺ 0.956 0.969 0.853 - IPSS-storage G I 8.38±3.87 4.17±3.52 0.000 ⁺ 0.473 0.420 0.992 0.659 G II 5.88±3.91 4.25±2.52 0.107 0.473 0.992 0.659 G II 6.00±4.32 3.50±3.41 0.195 0.420 0.992 - 0.578 G IV 7.02±3.79 4.76±3.49 0.000 ⁺ 0.420 0.992 0.578 - IPSS-QoL G I 3.40±1.50 2.06±1.34 0.000 ⁺ 0.996 0.578 - IPSS-QoL G II 3.40±1.50 2.06±1.34 0.001 ⁺ 0.996 - 0.432 IPSS-QoL G II 4.14±0.89 2.65±1.58 0.000 ⁺ 0.102 0.152 0.432 - G IV 4.44±0.89 2	IPSS-voiding	GΙ	11.86±5.11	4.63±6.59	0.000+	-	1.000	0.972	0.956	
IPSS-storage G I 1.1.21±4.55 4.10±1.55 0.000 0.956 0.969 0.853 - IPSS-storage G I 8.38±3.87 4.17±3.52 0.000 ⁺ 0.473 0.420 0.957 G II 5.88±3.91 4.25±2.52 0.107 0.473 0.992 0.659 G III 6.00±4.32 3.50±3.41 0.195 0.420 0.992 0.578 G IV 7.0±3.79 4.76±3.49 0.000 ⁺ 0.957 0.659 0.578 - IPSS-QoL G I 3.78±0.93 1.93±1.36 0.000 ⁺ 0.996 1.000 0.102 G III 3.40±1.50 2.06±1.34 0.031 ⁺ 0.996 0.432 G III 4.25±0.79 1.60±1.35 0.000 ⁺ 1.000 0.994 0.432 Qmax G I 8.48±3.50 17.10±9.17 0.000 ⁺ 0.102 0.420 0.992 0.659 G III 10.61±3.32 22.00±8.70 0.001 ⁺		G II	10.88±4.76	5.69±5.21	0.009+	1.000	-	0.983	0.969	
IPSS-storage G I 8.38±3.87 4.17±3.52 0.000 ⁺ - 0.473 0.420 0.957 G II 5.88±3.91 4.25±2.52 0.107 0.473 0.992 0.659 G II 6.00±4.32 3.50±3.41 0.195 0.420 0.992 - 0.578 G IV 7.02±3.79 4.76±3.49 0.000 ⁺ 0.957 0.659 0.578 - IPSS-QoL G I 3.78±0.93 1.93±1.36 0.000 ⁺ - 0.996 1.000 0.102 G II 3.40±1.50 2.06±1.34 0.031 ⁺ 0.996 - 0.994 0.152 G III 4.20±0.79 1.60±1.35 0.000 ⁺ 1.000 0.994 0.432 - G IV 4.14±0.89 2.65±1.58 0.000 ⁺ 0.473 0.420 0.992 - 0.432 - G II 8.48±3.50 17.10±9.17 0.000 ⁺ - 0.473 0.420 0.992 0.659 0.578 - <		G III	11.20±4.59	4.10±2.38	0.000+	0.972	0.983	-	0.853	
IPSS-storage G II 5.88±3.91 4.25±2.52 0.107 0.473 0.992 0.659 G III 6.00±4.32 3.50±3.41 0.195 0.420 0.992 - 0.578 G IV 7.02±3.79 4.76±3.49 0.000 ⁺ 0.957 0.659 0.578 - IPSS-QoL G I 3.78±0.93 1.93±1.36 0.000 ⁺ - 0.996 1.000 0.192 0.192 0.432 IPSS-QoL G II 3.40±1.50 2.06±1.34 0.031 ⁺ 0.996 - 0.994 0.152 G III 4.20±0.79 1.60±1.35 0.000 ⁺ 1.000 0.994 - 0.432 G III 4.14±0.89 2.65±1.58 0.000 ⁺ 0.102 0.152 0.432 - G III 7.31±4.56 11.54±7.04 0.028 ⁺ 0.473 - 0.992 - 0.578 G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578		G IV	12.12±5.14	5.46±5.79	0.000+	0.956	0.969	0.853	-	
IPSS-storage G III 6.00±4.32 3.50±3.41 0.195 0.420 0.992 - 0.578 G IV 7.02±3.79 4.76±3.49 0.000 ⁺ 0.957 0.659 0.578 - IPSS-QoL G I 3.78±0.93 1.93±1.36 0.000 ⁺ - 0.996 1.000 0.102 G II 3.40±1.50 2.06±1.34 0.031 ⁺ 0.996 - 0.994 0.152 G III 4.20±0.79 1.60±1.35 0.000 ⁺ 1.000 0.994 - 0.432 G IV 4.14±0.89 2.65±1.58 0.000 ⁺ 0.102 0.422 0.432 G IV 4.14±0.89 2.65±1.58 0.000 ⁺ 0.102 0.420 0.957 G IV 8.48±3.50 17.10±9.17 0.000 ⁺ - 0.473 0.420 0.992 0.659 G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺	IPSS-storage	GI	8.38±3.87	4.17±3.52	0.000+	-	0.473	0.420	0.957	
G III 6.00±4.32 3.50±3.41 0.195 0.420 0.992 - 0.578 G IV 7.02±3.79 4.76±3.49 0.000 ⁺ 0.957 0.659 0.578 - G I 3.78±0.93 1.93±1.36 0.000 ⁺ - 0.996 1.000 0.102 G II 3.40±1.50 2.06±1.34 0.031 ⁺ 0.996 - 0.994 0.152 G III 4.20±0.79 1.60±1.35 0.000 ⁺ 1.000 0.994 - 0.432 G IV 4.14±0.89 2.65±1.58 0.000 ⁺ 0.102 0.152 0.432 - Qmax G I 8.48±3.50 17.10±9.17 0.000 ⁺ - 0.473 0.420 0.957 G III 7.31±4.56 11.54±7.04 0.028 ⁺ 0.473 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺ 0.420 0.992 - 0.578 G I 67.60±45.80 24.92±16.43 0.000 ⁺ 0.999 0.578		GII	5.88±3.91	4.25±2.52	0.107	0.473		0.992	0.659	
IPSS-QoL G I 3.78 ± 0.93 1.93 ± 1.36 0.000° - 0.996 1.000 0.102 G II 3.40 ± 1.50 2.06 ± 1.34 0.031° 0.996 - 0.994 0.152 G III 4.20 ± 0.79 1.60 ± 1.35 0.000° 1.000 0.994 $ 0.432$ G IV 4.14 ± 0.89 2.65 ± 1.58 0.000° 0.102 0.432 $-$ Qmax G I 8.48 ± 3.50 17.10 ± 9.17 0.000° $ 0.432$ $-$ G II 7.31 ± 4.56 11.54 ± 7.04 0.028° 0.473 $ 0.992$ 0.659 G III 10.61 ± 3.32 22.00 ± 8.70 0.001° 0.420 0.992 $ 0.578$ G IV 8.64 ± 3.04 15.93 ± 8.20 0.000° 0.957 0.659 0.578 $-$ G II 67.60 ± 45.80 24.92 ± 16.43 0.000° $ 0.999$ 0.741 1.000 <th colds<="" t<="" th=""><td>G III</td><td>6.00±4.32</td><td>3.50±3.41</td><td>0.195</td><td>0.420</td><td>0.992</td><td>-</td><td>0.578</td></th>		<td>G III</td> <td>6.00±4.32</td> <td>3.50±3.41</td> <td>0.195</td> <td>0.420</td> <td>0.992</td> <td>-</td> <td>0.578</td>	G III	6.00±4.32	3.50±3.41	0.195	0.420	0.992	-	0.578
IPSS-QoL G II 3.40±1.50 2.06±1.34 0.031 ⁺ 0.996 - 0.994 0.152 G II 4.20±0.79 1.60±1.35 0.000 ⁺ 1.000 0.994 - 0.432 G IV 4.14±0.89 2.65±1.58 0.000 ⁺ 0.102 0.152 0.432 - G I 8.48±3.50 17.10±9.17 0.000 ⁺ - 0.473 0.420 0.992 0.659 G II 7.31±4.56 11.54±7.04 0.028 ⁺ 0.473 0.992 - 0.578 G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺ 0.459 0.578 - G I 67.60±45.80 24.92±16.43 0.000 ⁺ - 0.999 0.741 1.000 PVR		G IV	7.02±3.79	4.76±3.49	0.000+	0.957	0.659	0.578	-	
IPSS-QoL G III 4.20±0.79 1.60±1.35 0.000 ⁺ 1.000 0.994 - 0.432 G IV 4.14±0.89 2.65±1.58 0.000 ⁺ 0.102 0.152 0.432 - Qmax G I 8.48±3.50 17.10±9.17 0.000 ⁺ - 0.473 0.420 0.992 - G II 7.31±4.56 11.54±7.04 0.028 ⁺ 0.473 - 0.992 0.659 G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺ 0.957 0.659 0.578 - G I 67.60±45.80 24.92±16.43 0.000 ⁺ - 0.999 0.741 1.000 PVR G II 73.75±70.25 40.90±17.65 0.052 0.999 - 0.766 0.998	IPSS-QoL	GI	3.78±0.93	1.93±1.36	0.000+	-	0.996	1.000	0.102	
G III 4.20±0.79 1.60±1.35 0.000 ⁺ 1.000 0.994 - 0.432 G IV 4.14±0.89 2.65±1.58 0.000 ⁺ 0.102 0.152 0.432 - Qmax G I 8.48±3.50 17.10±9.17 0.000 ⁺ - 0.473 0.420 0.992 - G II 7.31±4.56 11.54±7.04 0.028 ⁺ 0.473 - 0.992 0.659 G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺ 0.957 0.659 0.578 - G I 67.60±45.80 24.92±16.43 0.000 ⁺ - 0.999 0.741 1.000 PVR G II 73.75±70.25 40.90±17.65 0.052 0.999 - 0.766 0.998		GII	3.40±1.50	2.06±1.34	0.031+	0.996	-	0.994	0.152	
Qmax G I 8.48±3.50 17.10±9.17 0.000 ⁺ - 0.473 0.420 0.957 G II 7.31±4.56 11.54±7.04 0.028 ⁺ 0.473 - 0.992 0.659 G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺ 0.957 0.659 0.578 - G I 67.60±45.80 24.92±16.43 0.000 ⁺ - 0.999 0.741 1.000 PVR G II 73.75±70.25 40.90±17.65 0.052 0.999 - 0.766 0.998		G III	4.20±0.79	1.60±1.35	0.000+	1.000	0.994	-	0.432	
Qmax G II 7.31±4.56 11.54±7.04 0.028 ⁺ 0.473 - 0.992 0.659 G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺ 0.957 0.659 0.578 - G I 67.60±45.80 24.92±16.43 0.000 ⁺ - 0.999 0.741 1.000 PVR G II 73.75±70.25 40.90±17.65 0.052 0.999 - 0.766 0.998		G IV	4.14±0.89	2.65±1.58	0.000+	0.102	0.152	0.432	-	
Qmax G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺ 0.957 0.659 0.578 - G I 67.60±45.80 24.92±16.43 0.000 ⁺ - 0.999 0.741 1.000 PVR G II 73.75±70.25 40.90±17.65 0.052 0.999 - 0.766 0.998	Qmax	GI	8.48±3.50	17.10±9.17	0.000+	-	0.473	0.420	0.957	
G III 10.61±3.32 22.00±8.70 0.001 ⁺ 0.420 0.992 - 0.578 G IV 8.64±3.04 15.93±8.20 0.000 ⁺ 0.957 0.659 0.578 - G I 67.60±45.80 24.92±16.43 0.000 ⁺ - 0.999 0.741 1.000 PVR G II 73.75±70.25 40.90±17.65 0.052 0.999 - 0.766 0.998		GII	7.31±4.56	11.54±7.04	0.028+	0.473	-	0.992	0.659	
G I 67.60±45.80 24.92±16.43 0.000 ⁺ - 0.999 0.741 1.000 G II 73.75±70.25 40.90±17.65 0.052 0.999 - 0.766 0.998		G III	10.61±3.32	22.00±8.70	0.001+	0.420	0.992	-	0.578	
G II 73.75±70.25 40.90±17.65 0.052 0.999 - 0.766 0.998		G IV	8.64±3.04	15.93±8.20	0.000+	0.957	0.659	0.578	-	
PVR	PVR	GI	67.60±45.80	24.92±16.43	0.000+	-	0.999	0.741	1.000	
		G II	73.75±70.25	40.90±17.65	0.052	0.999	-	0.766	0.998	
$G III 42.80 \pm 52.17 \qquad 24.20 \pm 17.57 \qquad 0.371 \qquad 0.741 \qquad 0.766 \qquad - \qquad 0.707$		G III	42.80±52.17	24.20±17.57	0.371	0.741	0.766	-	0.707	
G IV 67.44 \pm 73.93 28.67 \pm 24.16 0.005 $^{+}$ 1.000 0.998 0.707 -		G IV	67.44±73.93	28.67±24.16	0.005+	1.000	0.998	0.707	-	

Table 1. Comparison of perioperative IPSS, uroflowmetry and PVR in each group

⁺p<0.05

Disclosures Funding: No Clinical Trial: No Subjects: NONE