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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≥40 and BCI<100, n=24), group III (20<BOOI<40 and BCI≥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±37.1ml, 61.5±21.9ml, 41.2±13.7ml and 40.9±14.9ml, 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.

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

		Preoperative	Postop 6month	P-value				
				within group	between group			
					GI	GII	GIII	GIV
IPSS-total	G I	20.24±7.42	8.80±9.42	0.000⁺	-	0.934	0.839	0.995
	G II	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
	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	0.956
	G II	10.88±4.76	5.69±5.21	0.009⁺	1.000	-	0.983	0.969
	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	0.957
	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	7.02±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	0.152	0.432	-
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	-
PVR	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	42.80±52.17	24.20±17.57	0.371	0.741	0.766	-	0.707
	G IV	67.44±73.93	28.67±24.16	0.005⁺	1.000	0.998	0.707	-

⁺p<0.05

Disclosures
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