

	Median IQR	Standard Deviation
Age (year)	69.00 (64.00-76.00)	8.269
Follow-up duration (months)	18.00 (12.00-26.00)	11.925
Prostatic volume TRUS (ml)	60.00 (45.00-75.00)	29.083
Prostatic adenoma volume TRUS (ml)	36.00 (25.00-50.00)	22.286
Energy supplied (KJ)	220.00 (144.42-330.00)	148.78
Irradiation time (min)	25.00 (18.00-36.00)	14.020
Operating time (min)	60.00 (42.00-75.00)	23.046
Post-op day CB removal (d)	1.00 (1.00-2.00)	1.474
Day of definitive removal of CB (d)	2.00 (1.00-2.00)	2.100
Post-op day of discharge (d)	2.00 (1.00-3.00)	1.64
Ht pre	41.00-45.00	3.911
Ht pre	14.00 (14.00-15.00)	1.464
Ht post	40.00 (38.00-43.00)	5.359
Hb post	14.00 (13.00-15.00)	2.893
PSA-pre (ng/ml)	3.00 (2.00-4.00)	4.051
PSA-post 3 months (ng/ml)	1.00 (1.00-2.00)	1.456
PSA-post 6 months (ng/ml)	1.00 (1.00-2.00)	1.375
PSA-post 12 months (ng/ml)	1.00 (1.00-2.00)	1.460
UFM pre (ml/s)	8.00 (7.00-10.00)	2.640
UFM post 6 months (ml/s)	19.00 (16.00-22.00)	6.291
UFM post 12 months (ml/s)	19.00 (16.00-22.00)	5.923
IPSS pre	23.00 (19.00-26.00)	5.516
IPSS post 6 months	8.00 (5.00-10.00)	4.414
IPSS post 12 months	6.00 (3.00-8.00)	4.129
Patient Global Impression of Improvement	1.00 (1.00-2.00)	0.887

  

	N	Percentage (%)
Patients enrolled	1077	-
Previous BPH therapy		
No therapy	185	17.2
α-blockers	452	44.8
5 ARI	58	5.4
α-blockers + 5 ARI	286	26.6
Phytotherapy		
No	789	73.3
Yes	108	10.0
No anticoagulant/antiplatelet therapy	607	56.4

Anticoagulant/antiplatelet therapy	470	43.6
Anesthesia		
Spinal/peridural	856	79.5
General	152	14.1
Urethral stricture		
No pre-existing	874	81.2
Penile urethra	46	4.3
Bulbar urethra	22	2.0
Membranous urethra	9	0.8
No catheter after surgery	826	76.7
Conversion or completion with TURP	34	3.2
Postoperative removal bladder catheter		
1st post-op day	543	50.4
2nd post-op day	310	28.8
3rd post-op day	143	13.3
Acute urinary retention (AUR)		
Not occur	835	77.5
Occur	87	8.1
The Length hospital stay (days)		
2	498	46.2
1	294	27.3
3	164	15.2
4	46	5.0
Postoperative complications (Clavien Dindo classification)		
No complication	355	33.0
CD 1	380	35.3
CD 2	31	2.9
CD 3rd	3	0.3
CD 3b	3	0.3
CD 4	7	0.6
Blood transfusion	4	0.4
Reintervention rate or within 30 days	6	0.6
Reintervention rate over 30 days	31	2.9

Pre- and peri- operative data as well as post-operative results and complications were recorded after 3, 6, 12 months and then annually. **Results:** A total of 1031 patients were eligible for the study analysis. 951 of these had a prostate volume ≤100 cc (G1) and 80 patients had a prostate volume >100 cc (G2). Patients characteristic are summarized in Table 1. No statistical differences were observed between the two groups in terms of pre-operative data. Median follow up period was 24.5 months (IQR 17.5–34.2) and 16 months (IQR 12.00–25.00) in G2 and G1 group, respectively (p < 0.001). No difference were found in terms of catheterization time, post-operative stay and post-operative acute urine retention. G2 patients required longer operative time (80 versus 55 minutes, p < 0.001), lasing time (44 versus 25 minutes, p < 0.001), and higher energy used (401.5 versus 210 kJ, p < 0.001) but lower energy density (3.1 versus 4 kJ/mL, p < 0.001). Patients with a large prostate had a higher risk of developing early (51.2 versus 36.2%, p = 0.011) and late complications (22.5 versus 13%, p = 0.024) and early urge/incontinence symptoms (45 versus 29.3%, p = 0.010). According to Clavien-Dindo classification, the most common early complications were Grade I in both groups (92.7% in G2 and 88.1% in G1). No statistically significant differences were found for the Qmax parameter (19.0 versus 20 mL/s, p = 0.292) and IPSS results (5 versus 5.5, p = 0.157) at 12 months between G1 and G2, respectively. At 12 months Qmax increased by 118.3% in G1 and 150% in G2. Patient Global Impression of Improvement (PGI-I) did not differ between the two groups: 78.9% and 77.4% of patients in the G1 and G2 groups, respectively, reported a valuable improvement (1–2). The re-intervention rate in G2 group was 3.8% versus 2.3% in G1.

Variable	Overall (n=1031)	Prostate volume ≤100cc (n=951)	Prostate volume >100cc (n=80)	p-value
Age (years)	69.0 (64.0-76.0)	69.0 (64.0-76.0)	69.0 (65.0-76.0)	0.360 <sup>a</sup>
Prostate volume (TRUS) (mL)	60.0 (45.0-75.0)	55.0 (45.0-70.0)	120.0 (110.0-144.8)	<0.001 <sup>b</sup>
BPH/LUTS therapy (unknown = 66)				0.053 <sup>a</sup>
None	164 (15.9)	146 (15.4)	18 (22.5)	
Alpha-blockers	460 (44.6)	420 (44.2)	40 (50.0)	
5-ARI	56 (5.4)	52 (5.5)	4 (5.0)	
Combination	285 (27.7)	267 (28.0)	18 (22.5)	
Unknown	66 (6.4)	66 (6.9)	0 (0.0)	
Antiplatelet/anticoagulant therapy				0.139 <sup>a</sup>
None	578 (56.1)	532 (55.9)	46 (57.5)	
Antiplatelet	314 (30.5)	294 (30.9)	20 (25.0)	
Anticoagulant	91 (8.8)	79 (8.3)	12 (15.0)	
Unknown	48 (4.7)	46 (4.8)	2 (2.5)	
Indwelling catheter history (unknown:81)	168 (16.3)	142 (14.9)	26 (32.5)	<0.001 <sup>a</sup>
ASA score				0.141 <sup>a</sup>
1-2	473 (45.9)	440 (46.3)	33 (41.2)	
3-4	232 (22.5)	218 (22.9)	14 (17.5)	
Unknown	326 (31.6)	293 (30.8)	33 (41.2)	
Surgical technique				0.009 <sup>a</sup>
Anatomic PVP	481 (46.7)	432 (45.4)	49 (61.3)	
Standard PVP	550 (53.3)	519 (54.6)	31 (38.8)	
Catheterization time (days)	1 (1-2)	1 (1-2)	1 (1-2)	0.626 <sup>b</sup>
Acute urine retention	84 (8.1)	81 (8.5)	3 (3.8)	0.199 <sup>a</sup>
Clavien-Dindo classification of early complication*				0.291 <sup>a</sup>
I	341 (88.6)	303 (88.1)	38 (92.7)	
II	31 (8.1)	30 (8.7)	1 (2.4)	
IIIa	3 (0.8)	3 (0.9)	0 (0)	
IIIb	3 (0.8)	3 (0.9)	0 (0)	
IVa	7 (1.8)	5 (1.5)	2 (4.9)	
Overall late complications	142 (13.8)	124 (13.0)	18 (22.5)	0.024 <sup>a</sup>
Patient global impression of improvement				0.139 <sup>a</sup>
1	510 (49.5)	465 (48.9)	45 (56.2)	
2	302 (29.3)	285 (30)	17 (21.2)	
3	70 (6.8)	69 (7.3)	1 (1.2)	
4	24 (2.3)	23 (2.4)	1 (1.2)	
5	8 (0.8)	8 (0.8)	0 (0)	
6	4 (0.4)	3 (0.3)	1 (1.2)	
7	1 (0.1)	1 (0.1)	0 (0)	

**Discussion:** To the best of our knowledge, this is one of the most numerous and with a longer follow-up surgical series of Green Light Laser vaporization. This technique must be considered as a safe and effective alternative in the treatment of secondary LUTS to BPH.

**SC20** No matter for prostate sizes: Multicentric Italian Green Light photoselective vaporization study

C. Campobasso, M. Marchioni, F. Greco, C. De Nunzio, P. Destefanis, S. Ricciardulli, F. Bergamaschi, G. Fasolis, F. Varvello, S. Voce, F. Palmieri, C. Divan, G. Malossini, R. Orti, A. Tuccio, L. Ruggera, A. Tubaro, G. Delicato, A. Laganà, C. Dadone, P. Ditonno, G. De Rienzo, A. Frattini, L. Pucci, M. Carrino, R. Miano, L. Schips, G. Ferrari, L. Cindolo (Guastalla)

**Aim of the study:** GreenLight laser photoselective vaporization of the prostate (PVP) is a safe and effective procedure to treat Benign Prostatic Hyperplasia (BPH). Long term results and advantages about large prostate are still under evaluation.

**Materials and methods:** In a multi-institutional prospectively collected database, all consecutive patients who underwent standard or anatomical PVP between September 2011 and October 2017 were retrospectively reviewed. Inclusion criteria are a minimum follow up period of 12 months, no history of prostate cancer, neurogenic bladder disease or previous prostate surgery. Patients who underwent GreenLEP or contemporary ancillary procedures were excluded. Patients were divided in two groups based on prostate volume.

**Discussion:** In the midterm follow-up, Greenlight PVP guarantee the same results in prostate volumes >100 cc. Early and late complications are more frequent in large prostate.