

APPLICATION OF MODIFIED CLAVIEN CLASSIFICATION SYSTEM TO 120W GREENLIGHT HPS LASER FOR BPH: IS IT USEFUL IN CASE OF LESS INVASIVE PROCEDURES?

Hypothesis / aims of study

To evaluate the accuracy and applicability of the modified Clavien classification system (CCS) in evaluating complications following photoselective vaporization of the prostate using 120W GreenLight high performance system (HPS-PVP).

Study design, materials and methods

Medical records of 342 men who underwent HPS-PVP were retrospectively analyzed. Patients were older than 40 years of age with prostate volume >30mL and IPSS ≥8. Patients with prostatic malignancy, neurogenic bladder, urethral stricture, large postvoid residual volume (>250 mL), previous prostatic surgery and urinary tract infection were excluded. All operations were done by a single surgeon, and patients were followed up for uroflowmetry and IPSS postoperatively. All complications were recorded and classified according to the modified CCS, and methods of management were also recorded.

Results

Mean age was 71.6 ± 7.3 years, and mean prostate volume was 50.0 ± 17.0 mL, and 95 cases (27.7%) had volumes greater than 70 mL. Mean total IPSS score was 21.7 ± 7.9 preoperatively and 12.3 ± 8.1 at the first month postoperatively. Total 59 patients (17.3%) had postoperative complications until the first month after the surgery. Among them, 49 patients (14.3%) showed grade I complications, 9 patients (2.6%) showed grade II complications, and 1 patient (0.3%) showed grade IIIb complication. No one had complications graded higher than IIIb.

Interpretation of results

Less invasive procedures have a higher likelihood of having lower grade complications. So we may consider helpful to add more importance to complications which persist more than 1 month or to make to a new subgrade to predict possible long-term complications.

Concluding message

Although the modified CCS is a useful tool for communication among clinicians in allowing comparison of surgical outcomes, this classification should be revised to acquire higher accuracy and applicability in the evaluation of postoperative complications of HPS-PVP.

Table Postoperative complications and management

Grade	No. of patients	Symptoms and onset of time (POD)	Management	Duration of management
I	45	Non-specific urinary symptoms	Nothing	
	2	1: Hematuria (third week) 1: Hematuria (second week)	Catheterization	1 week 3 days
	2	1: Urinary retention (first day) 1: Urinary retention (second day)	Catheterization	3 days 1 year and follow-up loss
II	6	1: Urgency (first day) 2: Urgency (third week) 3: Urgency (forth week)	Anticholinergics	1 year 1: 2 months / 1: 9 months 2: 2 months / 1: 4 months
	2	1: Dysuria and slow stream (first week) 1: Urinary tract infection (first day)	Antibiotics	1 month 1 week
	1	Voiding difficulty (third week)	Alpha blocker	2 months
IIIa	0	-	-	-
IIIb	1	Hematuria (seventh day)	Coagulation under general anesthesia and catheterization	2 weeks
IV, V	0	-	-	-
Total	59			

POD, postoperative day

References

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Disclosures

Funding: We certify that there is no actual or potential conflict of interest in relation to this article. **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Review Board of Boramae Hospital **Helsinki:** Yes **Informed Consent:** Yes