

NARROW BAND IMAGING® CYSTOSCOPY AND BIPOLAR PLASMA VAPORIZATION FOR LARGE NON-MUSCLE-INVASIVE BLADDER TUMORS—RESULTS OF A PROSPECTIVE, RANDOMIZED COMPARISON TO THE STANDARD APPROACH

Bogdan Geavlete, Razvan Multescu, Dragos Georgescu, Florin Stanescu, Marian Jecu, and Petrisor Geavlete
Department of Urology, Saint John Emergency Clinical Hospital, Bucharest, Romania

OBJECTIVE

Weigh the effectiveness of Narrow Band Imaging (NBI®) cystoscopy and bipolar plasma vaporization (BPV) against white light cystoscopy (WLC) and monopolar transurethral resection of bladder tumors (TURBTs) in the treatment of non-muscle invasive bladder tumors (NMIBTs).

METHODS

Evaluation of 220 cases, each with one or more bladder tumors > 3 cm in size. Half underwent WLI and NBI cystoscopy followed by BPV. The other half underwent more standard treatment using just WLI and TURBT.

RESULTS

- CIS, Stage pTa, and overall NMIBT detection rates significantly improved for NBI compared with WLI
- BPV provided lower obturator nerve stimulation and bladder wall perforation rates when compared to TURBT
- BPV reduced mean hemoglobin decrease, catheterization period, and hospital stay when compared to TURBT
- Repeat TUR residual tumor rates were significantly decreased in the NBI-BPV group
 - 6.3% vs 17.5% overall
 - 4.2% vs 13.4% primary site
- 1-year recurrence rates were significantly reduced in the NBI-BPV series
 - 7.9% vs 17.8% overall
 - 3.4% vs 12.2% other site

EQUIPMENT USED

- Olympus Visera Video System
- UES-40 SurgMaster bipolar generator
- OES-Pro Bipolar Resectoscope
- Standard resection loops for bipolar resection
- “Button” shaped electrodes for plasma vaporization

CONCLUSIONS

NBI cystoscopy significantly improved the diagnostic accuracy in cases of large NMIBTs, and BPV emphasized superior efficacy and safety compared with TURBT. This combined approach provided a lower residual tumor rate at repeat TUR and a reduced 1-year recurrence rate.

Note: This summary is for informational purposes only. Publication abstract and access to full article can be found at:

<http://www.ncbi.nlm.nih.gov/pubmed/22342408>

Ref: doi: 10.1016/j.urology.2011.08.081