BIPOLAR PLASMA VAPORIZATION AND NBI IN LARGE NON-MUSCLE INVASIVE BLADDER TUMORS:
BETTER THAN THE STANDARD APPROACH?
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Objective: This study evaluated the diagnostic accuracy, surgical efficacy and recurrence rates of a new diagnostic and treatment approach consisting of narrow band imaging cystoscopy (NBIC) associated with bipolar plasma vaporization (BPV), by comparison to standard white light cystoscopy (WLC) and transurethral resection of bladder tumors (TURBT).

Material and Methods: A total of 210 patients with bladder tumors over 3 cm were included in the trial based on abdominal ultrasonography, computer tomography and flexible WLC. In one arm, 105 patients underwent WLC and NBIC, followed by BPV, while in the other arm, WLC and TURBT were performed. All NMIBC patients underwent standard Re-TUR and follow-up WLC at 3, 6, 9 and 12 months.

Results: The CIS, pTa, pT1 and overall tumors' detection rates in the NBIC-BPV arm were significantly improved for NBIC by comparison to WLC (95% versus 62.5%, 91% versus 78.1%, 95.7% versus 89.2% and 93.4% versus 80.6%). The operation time, catheterization period and hospital stay were significantly shorter for BPV. The obturator nerve stimulation, bladder wall perforation, mean hemoglobin drop and postoperative bleeding were also decreased for BPV. The overall and primary site residual tumors' rates at Re-TUR were significantly lower in the BPV arm (8.4% versus 20.6% and 7.4% versus 18.5%). The one year recurrence rate was reduced in the BPV arm (18.9% versus 35.1%).

Conclusions: BPV emphasized superior efficacy and reduced complication rate by comparison to TURBT. The diagnostic accuracy of NBIC versus WLC demonstrated significant improvements. Lower Re-TUR and one year recurrence rates were described.