TREATMENT CHANGES AND RECURRENCE RATES AFTER HAL CYSTOSCOPY: DOES BLUE LIGHT MAKE A DIFFERENCE IN THE LONG RUN?


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Objective: This prospective, long term, randomized study aimed to evaluate the impact of hexaminolevulinate blue light cystoscopy (HAL-BLC) concerning the treatment changes and recurrence rates in cases of non-muscle invasive bladder cancer (NMIBC), by comparison to white light cystoscopy (WLC).

Material and Methods: A total of 362 patients suspected of NMIBC were included in the trial, based on positive urinary cytology and ultrasonographic suspicion of bladder tumors. The follow-up protocol was performed in accordance with the risk category of NMIBC cases. Only first time recurrences after the initial diagnostic were considered.

Results: A total of 142 NMIBC patients were diagnosed in the BL arm and 129 in the WL arm. In the BL series, BLC emphasized significantly improved CIS, pTa, pT1 and overall cases’ and tumors’ detection rates. BLC found additional tumors in 35.2% of the cases and changed the recurrence and progression risk categories of patients in 16.2% and 21.1% of the cases. Consequently, the postoperative treatment was improved in 19% of the cases. The overall and other site recurrence rates at the 3 months follow-up were significantly lower in the BL group (7.2% versus 15.8% and 0.8% versus 6.1%, respectively). The one and two years’ recurrence rates were also significantly reduced in the BL arm (21.6% versus 32.5% and 31.2% versus 45.6%, respectively).

Conclusions: HAL-BLC cystoscopy emphasized a significant impact in terms of risk category changes and consequent postoperative treatment modifications. The 3 months’, one and two years’ recurrence rates were significantly improved in the BL arm.