AB095. Transurethral holmium laser bladder tumor submucosal dissection (HoL-BTSD) for non-muscle invasive bladder cancer

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Background: To compare the clinical efficacy of transurethral holmium laser bladder tumor submucosal dissection (HoL-BTSD) and transurethral bipolar plasma dissection of bladder tumor (TURBT) in the treatment of non-muscle invasive bladder cancer (NMIBC).

Methods: From September 2012 to April 2016, 105 patients diagnosed with NMIBC were randomly divided into HoL-BTSD and TURBT group. A total 53 cases in HoL-BTSD and 52 cases in TURBT according to the operation method. The operation time, intraoperative bleeding, postoperative urinary catheter indwelling time, hospitalization time, main complication rate and 1 and 2 years recurrence rate were compared between two groups.

Results: Between HoL-BTSD group and TURBT group, the mean operation time was 27.46±9.45 *vs.* 24.43±8.51 min (P>0.05). The mean intraoperative blood loss was 12.07±6.14 *vs.* 20.62±8.20 mL (P<0.05). The incidence of obturator reflex was 0% *vs.* 33.9% (P<0.05). The incidence of bladder perforation is 1.92% *vs.* 15.1% (P<0.05). The mean postoperative hospital stay was 6.10±1.62 *vs.* 7.66±1.79 days (P<0.05). The catheter retention time was 5.12 ±1.69 *vs.* 6.70±1.67 days (P<0.05). The incidence of postoperative bleeding was 0% *vs.* 11.3% (P<0.05). The incidence of urethral stricture was 3.85% *vs.* 7.55% (P>0.05). The rate of 1-year tumor recurrence was 5.8% *vs.* 18.9%. The rate of 2 years tumor recurrence was 13.5% *vs.* 35.8%.

Conclusions: Transurethral holmium laser dissection of bladder tumor in the treatment of non-muscular infiltration of bladder cancer is effective with less complications, rapid recovery, early discharge, and low postoperative recurrence rate.

Keywords: Non-muscle invasive bladder cancer (NMIBC); holmium laser; bladder tumor submucosal dissection (BTSD); transurethral bipolar plasma dissection of bladder tumor (TURBT); transurethral holmium laser bladder tumor submucosal dissection (HoL-BTSD)

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