

<https://doi.org/10.52418/moldovan-med-j.64-2.21.12>  
UDC: 616.62-006.6-089.87



## Comparative analysis between En-bloc resection and transurethral resection of non-muscular-invasive bladder tumors

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Manuscript received March 03, 2021; revised manuscript April 16, 2021; published online April 28, 2021

### Abstract

**Background:** Transurethral resection of the bladder (TURB) tumor was first described by Stern and McCarthy in 1931, and is still considered the gold standard in diagnosis and treatment of non-muscle-invasive bladder cancer. The quality of TURB affects accuracy of histopathologic evaluation, and subsequently impacts the risk of recurrence and patient outcome. New methods that aim to improve the effectiveness of TURB are reviewed, and recent studies are discussed, including resection methods and image enhancement techniques.

**Material and methods:** Between January 2016 and April 2019, within the Urology Clinic of *Nicolae Testemitanu* State University of Medicine and Pharmacy 108 patients were surgically treated with bladder tumor pathology. Patients were divided in two groups: En-bloc resection group which includes 51 patients and transurethral resection group with 57 patients, the obtained data were comparatively analyzed.

**Results:** Tumor analysis showed that the majority of the patients' tumors were localized on lateral urinary bladder walls, single bladder tumors were detected in 64 (59%) cases, tumor sizes up to 3 cm were detected in 74 (69%) patients included in the study. Detrusor muscles were detected in 49 (96%) cases of En-bloc group and 45 (79%) cases of TURB group. Most recurrences occurred in patients with high-grade histological result, recurrence rate in En-bloc group occurred in 18% and in TURB group in 37%.

**Conclusions:** The En-bloc resection technique of non-muscle-invasive bladder tumor proved to be a safe and effective method compared to the conventional transurethral resection technique (TURB). This method provides more favorable results for obtaining better quality tumor samples (present of detrusor muscle) that allow to establish correct diagnosis and staging of the disease and reduces the number of recurrences.

**Key words:** En-bloc resection, non-muscle-invasive bladder cancer.

### Cite this article

Vladanov I, Plesacov A, Ghicavii V. Comparative analysis between En-bloc resection and transurethral resection of non-muscular-invasive bladder tumors. *Mold Med J.* 2021;64(2):65-69. <https://doi.org/10.52418/moldovan-med-j.64-2.21.12>.