

# Usefulness of restages transurethral resection of bladder tumors (reTURBT)

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## Abstract

The present study was planned in the Department of Urology, MMIMSR Mullana, Haryana, India. The study was performed for one year. Total 50 cases of the proven histological diagnosis of nonmuscle invasive urothelial cancer with either high grade or T1 cancers on histopathology were enrolled in the present study. The data generated from the present study concludes that TURBT is necessary in patients with solid bladder tumors. The presence of tumor at restage confers a higher risk of recurrence and progression. Poor patient compliance for a restage TURBT remains a matter of concern.

## Introduction

Endoscopic transurethral resection of bladder tumor (TURBT) is the primary method for the identification, staging, and treatment of visible tumors. In some individuals, office-based fulguration of tiny tumors enables the management of low-risk bladder abnormalities without incurring the expense and inefficiency of surgery. [1] Over 70% of bladder tumors are non-muscle invasive (NMIBC). In patients with well-differentiated (G1) and moderately well-differentiated (G2) grade Ta tumors, TURBT is the primary method for the diagnosis and treatment of NMIBC, resulting in a long-term survival rate of 62%. [2]

TURBT is ineffective for carcinoma in situ (CIS) because the disease is often so widespread and hard to view that surgical excision is impractical. In these instances, the purpose of cystoscopy is to establish the diagnosis so that treatment may be initiated. CIS may also be fulgurated in obvious places, although the advantages of this have not been shown. When both papillary tumor and CIS are present, the papillary tumor is excised prior to initiating therapy for the CIS.

Traditionally, TURBT was done utilizing monopolar electrocautery to deliver the requisite energy for tumor resection and vascular cauterization. As bipolar technology has arisen and improved in recent years, its use has been expanded to TURBT, with the potential advantage of a lower risk of bladder perforation from obturator reflex and a decreased risk of TURBT

syndrome. With bipolar technology, the active and return electrodes are located relatively near to one another on the loop, preventing the current from traveling through the patient's body to an external pad, as it does with monopolar cautery. This also enables the use of nonconductive isotonic irrigation fluid, minimizing the hazards of TURBT syndrome discussed above. [3]

First step in the initial therapy of bladder cancer is transurethral resection of bladder tumors (TURBT). A TURBT is both diagnostic and therapeutic, as it offers vital information on the stage of the disease. In a TURBT, it is necessary to note the configuration (flat, sessile, or papillary), location (trigone, base, dome, or lateral walls), size (cm), and number of tumors. If tumors are tiny, solitary, and amenable to resection, they should be thoroughly excised. Additionally, with the exception of superficially seeming low-grade tumors, the muscularis propria must be included in the specimen to assure effective resection. The treatment may involve biopsies of the prostatic urethra or biopsies of abnormal-appearing urothelium in the bladder. If the patient has a tumor at the bladder neck or if the tumor is inside the prostatic urethra, biopsies or resections of the prostatic urethra should be considered. [4] The current research was designed to examine the clinical evaluation of the efficacy of restage transurethral resection of bladder tumor based on previous results (rTURBT).

#### **Methodology:**

The present study was planned in the Department of Urology, MMIMSR Mullana, Haryana, India. The study was performed from one years. Total 50 cases of the proven histological diagnosis of nonmuscle invasive urothelial cancer with either high grade or T1 cancers on histopathology were enrolled in the present study.

During the first cystoscopy, operational information such as the number of lesions, their solid or papillary structure, and their location were mapped and documented. TURBT was done at our facility with a 26 Fr resectoscope and monopolar cautery (settings 70 for pure cutting and 30 for coagulation on fulguration mode). After a thorough TURBT, a biopsy of the tumor's base was performed. The TURBT chips were supplied separately from the deep biopsy. The data of patients who had TURBT at a peripheral center were acquired from the operating records, and those with insufficient data were removed. EAU guidelines recommended a second TURBT between 4 and 6 weeks after the original TURBT. Similar cystoscopic findings were documented during the restage TURBT to those seen during the original TURBT. In individuals without apparent malignancies, the tumor bed was excised and submitted for investigation. All patient histology reports were documented. The patients were subsequently handled using a normal therapy regimen and subsequent care.

All the patients were informed and consents taken. The aim and the objective of the present study were conveyed to them. Approval of the institutional ethical committee was taken prior to conduct of this study.

## Results

Table 1: Characteristics of Patients Undergone restage Transurethral resection of bladder tumor (TURBT)

	N	%
Age		
30-40	8	1.6
40-50	19	38
50-60	18	36
>60	5	10
mean±SD	41.56±1.71	
Gender		
M	22	44
F	28	56
Grade		
High	25	50
Low	25	50
Morphology of tumor		
Papillary	28	46
Solid	22	44
Size of tumors		
Small (<3)	30	60
Large (>3)	20	40

## Discussion

TURBT is conducted to confirm the diagnosis and assess the severity of bladder illness. TURBT is the conventional therapy for Ta, T1, and Tis disease, and NCCN guidelines strongly recommend a second look TURBT for T1 tumors during the first TURBT. [5]

As there are disputes around the indications for reTURBT, we aimed to analyze the relative importance of several criteria and evaluate them as predictors of residual illness. In addition, nothing is known regarding the safety of reTURBT, which was our secondary research

objective. Consistent with the results of a number of previously published studies [6-8], reTURBT revealed an exceptionally high percentage (40.2%) of residual tumor.

The approach of reTURBT is still under discussion. Kamat identifies it as a failure of urological technique, which by definition entails the possibility of incompleteness [9]. In addition, the signals for reTURBT are murky and vary across institutions and agencies. An expert panel of the European Association of Urology supports reTURBT for patients with T1 tumors, high-grade malignancy, if there is no muscle layer in the specimen and if the previous TURBT was partial [10]. The data supporting this advice, however, is inconsistent. In the most recent revision of EAU recommendations, the absence of muscle in recurrent tumor specimens without evidence of T1 or HG has been questioned as a justification for restaging resection.

Herr et al. presented the largest repeat TURBT series, summarizing unpublished data on standard repeat TUR and included 1,312 patients with NMIBC [11]. They detected persistent illness in 51%–78% of patients, with the greatest prevalence in the group with T1 disease at first TUR. The natural course of the remaining tumors following TURBT is not fully established. However, a few studies have revealed that the existence of persistent tumors is a possible risk factor for disease recurrence and poor prognosis [12-13].

It was noteworthy that the existence of residual tumors on re-TURBT was related with greater chances of tumor recurrence in comparison to those with no residual tumors. Tumor-free status at re-TURBT was related with fewer tumor recurrences and longer durations to recurrence, according to a prior research [14]. 83% of patients with residual tumors on re-TURBT experienced recurrence, compared to 39% of patients at stage T0, according to a retrospective research [15].

Few research have examined re-TURBT pathology results as prognostic risk factors; as stated before, the majority of investigations on re-TURBT in bladder cancer have focused on stage migration and the existence of residual tumors. In this study, both tumor pathology and residual tumor status after re-TURBT were associated with recurrence; in univariate analysis, stage T1 and high tumor grade in re-TURBT were significantly associated with residual tumor recurrence, and in multivariate analysis, stage T1 in re-TURBT remained statistically significant.

There were some limitations in our study. The fact that this was a retrospective research with a limited sample size is the most significant drawback that might have led to bias. Second, the indication for second-look TURBT in our research varied on the intraoperative findings and expertise of the surgeons. Future research should evaluate the relationship between the time between the first and second TURBT and tumor outcomes, such as recurrence, progression, and survival. Thirdly, the proportion of T1 urothelial carcinoma patients who accepted second-look TURBT rose annually.

### **Conclusion**

The current study's findings indicate that TURBT is required for patients with solid bladder tumors. The presence of tumor during the restaging stage increases the likelihood of recurrence and progression.

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