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**Feasibility and Clinical Implications of Achieving Negative Horizontal and Vertical Margins
in Non-Muscle-Invasive Bladder Cancer Surgery**

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Objective: The aim is to assess the technical feasibility of achieving negative horizontal and vertical margins in patients with non-muscle-invasive bladder cancer. Additionally, we seek to explore potential associations between these negative margins and clinically tumor characteristics.

Patients & Methods:

We performed a retrospective analysis of bladder cancer patients who underwent surgery between January 2019 and July 2023. All surgeries were conducted using plasma electrocautery devices. The surgical procedures consisted of either conventional transurethral resection of bladder tumor (cTURBT) or en bloc resection of bladder tumor (ERBT). We cataloged patients' perioperative oncological clinical characteristics and sought to explore the correlation between negative margins and these clinical attributes.

Results: In this study of 41 bladder cancer patients, two had positive horizontal margins, both in the cTURBT group with multifocal and sessile tumors exceeding 5cm in diameter. Negative horizontal and vertical margins were achieved in the remaining 39 patients, resulting in rates of 95.1% and 100%, respectively. Among these, 10 were female, 29 male; two recurrences occurred in the T1 group (n=9) and one in the Ta group (n=30). Eight patients with concurrent carcinoma in situ received BCG therapy, with one recurrence at 3 months. Average tumor diameter was 23.5±16.1 mm, and mean recurrence-free survival was 13.3±14.1 months.

Conclusion: For non-muscle-invasive bladder cancer surgery, achieving negative horizontal and vertical margins appears technically feasible. Even in cases with concurrent carcinoma in situ, a lower recurrence rate may be maintained postoperatively through the use of standardized BCG instillation therapy.