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En Bloc Resection of Bladder Tumors: Style or Substance?

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Transurethral en bloc resection of non-muscle-invasive bladder tumor (ERBT) has increased in popularity over recent years, especially in Europe and Asia. While it is not a new concept, the reinvigorated interest in the technique stems from potential areas for improvement over conventional transurethral resection of bladder tumor (TURBT) and supporters quote three main advantages. First, ERBT is thought to improve the quality of histopathological specimens allowing pathologists to better assess margin status for completeness of resection and depth of invasion [1,2]. Second, the more controlled resection may decrease the risk of adverse events such as bladder perforation [3]. Third, the reduction in tumor fracturing leads to fewer floating tumor cells, theoretically reducing the risk of intravesical tumor seeding and improving recurrence rates [1,4]. Unfortunately, high-quality data on ERBT are lacking and available studies are hampered by a lack of standardization for patient selection, technique, and outcomes measured. With little guidance in this space, Teoh et al [5] attempt to shine light on the role of ERBT using a combination of systematic review and expert opinion in this issue of *European Urology*.

Although multiple systematic reviews comparing ERBT and TURBT already exist, the current work is comprehensive and uses robust methodology in accordance with the Cochrane Handbook [1,3,6]. It includes only randomized controlled trial (RCT) data and excludes observational studies in an attempt to reduce selection bias for ERBT. While RCTs generally represent good evidence, they are limited by their restrictive inclusion criteria, which often limit generalizability to the population at large. In the present study, ten RCTs involving a total of 1155 patients (586 ERBT vs 569 TURBT) were identified but, owing to differences in outcome reporting, only a subset of these

studies contribute to the pooled outcomes. The authors report fewer bladder perforations and shorter irrigation time with ERBT, but these outcomes were only reported in five ($n=723$) and two ($n=195$) trials, respectively. In addition, it is uncertain if the lower perforation rates for ERBT are related to surgeon comfort with the novel technique as early adapters and whether widespread use would show similar results. Similarly, the authors note equivalent recurrence rates at 0–12, 13–24, and 25–36 mo, but only five ($n=622$), two ($n=262$), and three ($n=570$) studies respectively, included these outcomes and the data are unfortunately too limited for subgroup analyses between ERBT modalities or patient and disease factors. The authors include GRADE summaries of data for each outcome, which illustrate the overall poor study quality, as most have low and very low certainty evidence, even when randomized [7].

The main novel contribution of the paper is a qualitative process whereby the authors compiled 99 statements and presented them to a panel of experts for consensus development. The fact that a consensus process is required to interpret the existing ERBT data highlights how poor these data really are. That being said, the inclusion of statements addressing how trials should be designed and reported could lead to improvements in future studies. An additional concern is the constitution of the expert panel: members were chosen either as authors of ERBT systematic reviews or as respondents to an online advertisement with verified personal ERBT experience. Consequently, the panel is heavily skewed towards urologists practicing in Europe and Asia who are early adopters and “believers” in ERBT. The inclusion of statements covering multiple areas from surgical technique to histological preparation also led to grading of statements outside participants’ expertise

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(eg, urologists opining on histology, pathologists opining on surgery). The authors attempt to address with an “unable to score” option, but this was underutilized and no assessment of differences between stakeholder groups was performed.

The main ERBT benefit is avoidance of the piecemeal resection of TURBT that is thought to lead to seeding of normal urothelium by tumor cells shed during resection [1–3]. The existing evidence does not support the notion that ERBT reduces recurrences. In addition, ERBT may not be appropriate for many bladder tumors, including tumors >3 cm, highly multifocal tumors, flat tumors, and tumors at the dome. Specimen retrieval can also be a limitation, as a nicely resected en bloc tumor might be impossible to extract intact through the resectoscope sheath without additional equipment (which is not routinely available).

Overall, this work does provide interim guidance within a growing field and hopefully will standardize care and allow for stronger future studies. However, the consensus statements must be interpreted with caution given the low quality of data on which they are based and the biased constitution of the opinion panel. Unanswered questions remain and Teoh et al reference an additional five ongoing trials that seek to address these issues, although their outcomes are not standardized. We look forward to seeing these results and hope that the unappreciated surgical technique that is TURBT will improve for our patients.

Conflicts of interest: BAI is a consultant/advisor for Ferring Pharmaceuticals, Combat Medical, and Taris Biomedical, and has participated in scientific studies/trials with FKD Therapies, Anchiano Therapeutics,

Genentech Inc., Nucleix, Bristol-Myers-Squibb, and Abbott Laboratories. The remaining authors have nothing to disclose.

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References

- [1] Mori K, D'Andrea D, Enikeev DV, Egawa S, Shariat SF. En bloc resection for nonmuscle invasive bladder cancer: review of the recent literature. *Curr Opin Urol* 2020;30:41–7.
- [2] Kramer MW, Altieri V, Hurler R, et al. Current evidence of transurethral en-bloc resection of nonmuscle invasive bladder cancer. *Eur Urol Focus* 2017;3:567–76.
- [3] Yang H, Lin J, Gao P, et al. Is the en bloc transurethral resection more effective than conventional transurethral resection for non-muscle-invasive bladder cancer? A systematic review and meta-analysis. *Urol Int* 2020.
- [4] Kramer MW, Rassweiler JJ, Klein J, et al. En bloc resection of urothelium carcinoma of the bladder (EBRUC): a European multicenter study to compare safety, efficacy, and outcome of laser and electrical en bloc transurethral resection of bladder tumor. *World J Urol* 2015;33:1937–43.
- [5] Teoh JYC, MacLennan S, Chan VWS, et al. An international collaborative consensus statement on en bloc resection of bladder tumour incorporating two systematic reviews, a two-round Delphi survey, and a consensus meeting. *Eur Urol* 2020.
- [6] Zhang D, Yao L, Yu S, et al. Safety and efficacy of en bloc transurethral resection versus conventional transurethral resection for primary nonmuscle-invasive bladder cancer: a meta-analysis. *World J Surg Oncol* 2020;18:4.
- [7] Schunemann H, Brożek J, Guyatt G, Oxman A, editors. GRADE handbook for grading quality of evidence and strength of recommendations. Updated October 2013. The GRADE Working Group; 2013.