

# A shared decision: Bipolar vs. monopolar transurethral resection of the prostate for benign prostatic hyperplasia

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Notwithstanding the introduction of lasers and evolving technologies in the field of urology, transurethral resection of the prostate (TURP) remains the international gold standard and most frequently used procedure for the surgical treatment of benign prostatic hyperplasia (BPH).<sup>1-4</sup> However, it has often been debated whether bipolar TURP (BTURP) is safer and/or more effective than monopolar TURP (MTURP), especially for larger-volume prostate glands.

The current Cochrane review by Alexander et al attempts to answer this question. This review examines 59 randomized control trials (RCTs) that include a total of 8924 patients. It was determined, with moderate certainty, that there was no difference between MTURP and BTURP regarding urological symptom improvement, bother, and impact on erectile function. However, it was also determined with moderate certainty that BTURP has a reduced risk of transurethral resection (TUR) syndrome and blood transfusions. Unfortunately, due to the low certainty of the evidence, it could not be determined if there was a difference in rates of incontinence or need for re-intervention for BPH regrowth.

It is clear from this review that the main advantages of BTURP would be for larger-volume prostate glands (>60 g) that would necessitate a longer resection time, which in turn, would increase the risk of TUR syndrome and blood transfusions. One of the main limitations of this review is that only one RCT (of the 59 included) with a total of 58 patients examined outcomes according to prostate volume. Other limitations include the heterogeneity of data, including the different types of BTURP equipment/techniques and the short-term outcomes (i.e., re-intervention was only measured at 12 months).

Although this review helps clinicians decide which TURP is the best option for a specific prostate gland size, questions remain. What about larger prostates glands or other conditions that preclude the use of MTURP or BTURP (e.g., patients on anticoagulation)? Additionally, it is clear that patients often have different goals/values than their surgeons; a patient might

be adamant that he maintain his antegrade ejaculation or he might want a procedure that has an extremely low rate of re-intervention. Going even further, some patients might want an office-based procedure. Unfortunately, in part due to the paucity of data and in part being outside the scope of this review, these questions remain unanswered.

Currently, according to the Canadian Urological Association guidelines on BPH therapy,<sup>1</sup> there are nine possible treatment modalities depending on the patient's prostate volume. In this ever-evolving field, there will soon be even more options. This begs the question — which treatment is best for which patient? With so many options, treatment needs to be tailored to the patient's overall condition and specific prostate. Furthermore, in the age of shared decision-making, it is paramount that the patient's specific values and preferences are also considered.

While this review may help determine which procedure is most likely to be successful, with the lowest risk of complication for individual patients, the patients' own goals/values will determine which procedure is best for them.

**Competing interests:** Dr. Bhojani has been an advisory board member for Boston Scientific and a speaker for Procept. Dr. Zorn has been a consultant and proctor for Boston Scientific and Procept Biorobotics. Dr. Elterman has been an advisory board member and speakers' bureau member for Astellas, Boston Scientific, Duchesnay, Ferring, Medtronic, and Pfizer; has received grants/honoraria from Boston Scientific and Pfizer; and has participated in clinical trials supported by Astellas, Boston Scientific, and Medtronic.

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