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The Impact of Urethral Mucosa Preservation of Prostatic Apex During Monopolar Transurethral Resection of the Prostate on Postoperative Functional Outcomes: A Retrospective Comparat...

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intraoperative complications. Intraoperative bleeding and postoperative transfusion rates have greatly decreased over time and the incidence has since dropped to 0.4%–7.1%.

Although previous series reported blood transfusion rates of up to 22%.^[21,22] Our study revealed greater intraoperative bleeding in Group A than in Group B, with a statistically significant difference (305 ± 63.4 vs. 212.5 ± 65 , $P < 0.0001$), similar to previous reports.^[5,6] These reports reported a similar method of urethral mucosa preservation of the prostatic apex during endourologic prostate resections of BPH with a shorter operative time, less intraoperative bleeding, and low postoperative urge UI incidence, as mentioned by Liang *et al.* and Liu and Yang.^[5,6]

The postoperative blood transfusion rate was observed in one and three cases in Groups B and A, respectively. Mebust *et al.* illustrate that over-resection in any prostate area might expose venous sinuses and cause bleeding.^[21] Consequently, the urologist should be careful during apex resection due to its thin wall to avoid venous sinus opening and bleeding. Previous studies reported capsular perforation as an m-TURP complication.^[23] We observed no prostate capsular perforation, TUR syndrome, urethral stricture, or hematuria in both groups. Expectedly, we had no capsule perforation and lower rates of complications in comparison to other research because all surgeries in our study were conducted by a single academic urologist with several years of experience in this field.

Previous studies reported a significant improvement in IPSS score and Q max with or without apical prostate resections.^[5,6] Similarly, our study revealed IPSS score and Q max improvement in both groups without statistically significant differences during the 6-month follow-up period. However, the long-term efficacy of this procedure remains unknown, which requires further studies with more extended assessment periods to follow this outcome method. Notably, the follow-up period in Liu and Yang was 1 month, including IPSS score and urge UI occurrence,^[5] while our study extended the follow-up to 6 months. In addition, we evaluated the IIEF-5 score.

Erectile dysfunction has been indicated as one of the m-TURP complications due to penile cavernosal nerve damage through heat and cutting current. The cavernosal nerves of the penis pass through the lateral prostate along its path and are closest to the apex of the prostate, and from there, they enter the cavernous bodies of the penis, thus heat damage in these areas causes erectile dysfunction.^[24] Our study revealed no statistically significant difference in the evaluation of erectile function based on the IIEF5 between the two groups ($P = 0.34$). However, Group B demonstrated more improvements (14.50 ± 3.74 vs. 15.67 ± 4.42).

The current study had some limitations. First, large prostates of ≥ 80 ccs were excluded from the study. Second, preserving the apex of the procedural outcome may be time dependent; thus we indicate further studies with larger samples and better randomization. Third, the postsurgical UI assessment has

insufficient data compared to the baseline and different variants in the shape of the prostatic apex.^[25] Fourth, this study includes a small number of cases. We indicate further studies with a larger sample size and better randomization. Finally, the study was conducted in a single center.

CONCLUSIONS

Our result indicated the association of the preserved urethral mucosa of the prostate apex with a lower incidence of postoperative urge UI, intraoperative blood loss, and shorter operative length, thereby improving surgical efficiency.

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Conflicts of interest

There are no conflicts of interest.

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