

A Randomized-Controlled, Prospective Study on the Effect of Dorsal Penile Nerve Block after TURP on Catheter-Related Bladder Discomfort and Pain

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Abstract

Purpose:In the present study, the impact of penile nerve block(PNB) on postoperative pain and CRBD in transurethral resection of prostate(TURP) patients were evaluated. **Methods:**Participants of the present study were selected from patients who performed TURP under spinal anesthesia for benign prostatic hyperplasia(BPH) between January 2018-July 2020. This study was planned as a single center, randomized-controlled prospective study. The patients were divided into two groups; Group 1 was administered Control(n:40), and Group 2 ultrasonography(USG) guided PNB(n:40). The patients were included in the Groups respectively. Visual analogue scale(VAS) scores were questioned and recorded in order to evaluate the postoperative pain complaints of the patients after the operation. In addition, in order to evaluate the CRBD, VAS scores were questioned and recorded as 0-1th hour, 1st-2nd hours, 2nd – 4th hours, 4th-8th hours, 8th-12th hours, and 12th-24th hours. In addition, postoperative pain and analgesic need were recorded. Tramadol was given to patients with moderate to severe CRBD. The findings was compared between to the Groups. **Results:**There was no statistical difference between Group 1 and Group 2 between demographic and per-operative data. The CRBD and pain-related VAS scores was significantly higher in Group 1 between the 0-8th hours. There was no difference between VAS scores in the postoperative 8-24th hours. In total 24 hours, Group 2's need for tramadol for CRBD and pain was significantly less than Group 1. On examining the factors affecting CRBD in the multivariate analysis, age, body mass index(BMI), prostate volume, operation time do not affect CRBD statistically, only PNB reduces CRBD (p: 0.029). While less drug-related complications were observed in Group 2, no serious complications related to PNB were observed. **Conclusion:**PNB is the effective method for the decrease pain and CRBD after urological surgery.It will also reduce the need for analgesics, and provide the painless patients in postoperative period.

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DeclarationsWe have agreed to the submission and that the article is not currently being considered for publication by any other print or electronic journal. We certify that none of the paper's contents have been previously published.**Ethical Approval**All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The analysis and data collection were performed following the after written informed consent was obtained from all patients. The institutional human research ethics committee approved the protocol 2020/ (Necmettin Erbakan University, Meram Medical Faculty Ethics Committee).**Funding**The authors declare that this work has not received any funding.**Competing interests**The authors declare that they have no competing interests.**Availability of data and material**Data are available on request.**Code availability**Not applicable.**Acknowledgements**Not applicable.**Authors' contributions****YE Goger:** Protocol/project development; Data collection or management; Manuscript writing/editing; Critical revision of the manuscript; Supervision; Approval of the final manuscript**MS Ozkent:** Protocol/project development; Data collection or management; Data analysis; Manuscript writing/editing; Critical revision of the manuscript; Supervision; Approval of the final manuscript**E Göger:** Data collection or management; Manuscript writing/editing; Critical revision of the manuscript; Administrative, technical, or material support; Approval of the final manuscript**MT Kilinc:** Data collection or management; Manuscript writing/editing; Critical revision of the manuscript; Administrative, technical, or material support; Approval of the final manuscript**G Ecer:** Data collection or management; Manuscript writing/editing; Critical revision of the manuscript; Administrative, technical, or material support; Approval of the final manuscript**MM Piskin:** Protocol/project development; Data collection or management; Data analysis; Manuscript writing/editing; Critical revision of the manuscript; Approval of the final manuscript**A Erol:** Protocol/project development; Data collection or management; Data analysis; Manuscript writing/editing; Critical revision of the manuscript; Approval of the final manuscript

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