



Letter to the Editor Regarding “Impact of Chloroprocaine on the Eligibility for Hospital Discharge in Patients Requiring Ambulatory Surgery Under Spinal Anesthesia: An Observational Multicenter Prospective Study”

Elsbeth J. Wesselink · Marcel A. de Leeuw

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We read with considerable interest the article by Capdevila and colleagues concerning the impact of chloroprocaine on the eligibility for hospital discharge in patients requiring ambulatory surgery under spinal anesthesia [1]. We encourage the analysis of spinal chloroprocaine anesthesia as a possible alternative for spinal lidocaine anesthesia and therefore congratulate the authors on this publication. We would like to make a few comments regarding the primary outcomes.

The hospital discharge in this observational multicenter prospective study was 256.6 ± 80.7 min (mean \pm SD)/median 245.0 (range 90–538) min for orthopedic procedures under spinal anesthesia with chloroprocaine. The most common dose of chloroprocaine administered spinally was 50 mg (59.2%), then

40 mg (32.3%). We recently conducted a double-blind randomized trial comparing 40 mg chloroprocaine with 40 mg prilocaine for spinal anesthesia in ambulatory knee arthroscopy [2]. Using exactly the same discharge criteria, we found that the time from injection to eligibility for hospital discharge in the chloroprocaine arm (40 mg) in our study was substantial shorter, i.e., 222 ± 72 min (mean \pm SD). The use of different dosages of spinal anesthesia using chloroprocaine resulting in different hospital discharge times suggests a possible correlation and therefore we recommend that the authors perform a subgroup analysis (40 mg/50 mg chloroprocaine) to analyze this phenomenon within their cohort.

Furthermore, there was a similarity in effectiveness of spinal anesthesia using 40 mg chloroprocaine in our study compared to 40 mg (32.3%)/50 mg (59.2%) in Capdevila et al.’s cohort. We reported a success rate of spinal anesthesia in the chloroprocaine arm of 97.3%. Capdevila reported a success rate of 95.6% in the orthopedic cohort. This lack of difference in effectiveness may indicate that 40 mg should be an adequate dose for spinal anesthesia in ambulatory orthopedic surgery.

Finally, there was a substantial difference in the administration of vasoactive agents (10% in Capdevila’s cohort compared to 22.7% in the chloroprocaine arm of our cohort). Whether this could be explained by a slightly higher peak

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E. J. Wesselink (✉)
Department of Clinical Pharmacy, Zaans Medisch
Centrum, Zaandam, The Netherlands
e-mail: e.wesselink@amsterdamumc.nl

M. A. de Leeuw
Department of Anesthesiology, Amsterdam UMC,
Amsterdam, The Netherlands

sensory block (T9) with therefore more hemodynamic consequences in the chloroprocaine arm of our cohort compared to Capdevila's cohort (peak sensory block T10) remains questionable. This could be the result of different standard operating procedures regarding the use of vasopressor agents.

We strongly agree with the authors that chloroprocaine is a short-acting local anesthetic particularly suitable for short surgical procedures and to ambulatory management.

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REFERENCE

1. Capdevila X, Aveline C, Delaunay L, et al. Impact of chloroprocaine on the eligibility for hospital discharge in patients requiring ambulatory surgery under spinal anesthesia: an observational multicenter prospective study. *Adv Ther.* 2020;37:541–51.
2. Wesselink E, Jansen-van den Hurk G, van der Vegt R, et al. Chloroprocaine versus prilocaine for spinal anesthesia in ambulatory knee arthroscopy: a double-blind randomized trial. *Reg Anesth Pain Med.* 2019;44:944–9.