

Editorial

Ultrasound-Guided Paravertebral Block compare to the Intravenous Tramadol for Pain Control in Percutaneous Nephrolithotomy

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HIGHLIGHTS

- Percutaneous nephrolithotomy (PCNL) is the standard stone treatment method.
- Intravenous tramadol is good candidate for pain control in percutaneous nephrolithotomy.
- Post-operative PCNL pain can cease by non-steroidal anti-inflammatory drugs (NSAIDs) or opioids.

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ABSTRACT

Percutaneous nephrolithotomy (PCNL) is a standard treatment method for large choroidal stones with a shorter hospital stay than surgical procedures. After PCNL, a nephrostomy tube is placed for better discharge urine, prevent bleeding, and allow for further possible operations, which is can be the major cause of pain and discomfort for the patient. Paravertebral block (PVB) is a successful, non-complicating local anesthetic that is used in many surgical procedures to manage pain. It is suggested that the use of PVB in reducing pain after PCNL has had good results. In the previous study, the important problem of post-PCNL pain reduction has been properly managed by the PVB method and its high efficacy contrary to tramadol has been demonstrated. Evaluation of the PVB method is a good choice in this regard, but the question arises as to why Tramadol is selected as a method compared to PVB.

Keywords: Pain Control; Percutaneous Nephrolithotomy; Nephrolithotomy

Editorial: Percutaneous nephrolithotomy (PCNL) is a standard treatment method for large choroidal stones (over 2 and a half centimeters) with a shorter hospital stay than surgical procedures (1, 2). After PCNL, a nephrostomy tube is placed for better discharge urine, prevent bleeding, and allow for further possible operations, which is can be the major cause of pain and discomfort for the patient. The resulting pain, in addition to the patient's discomfort and dissatisfaction, can lead to cardiovascular and cardiovascular problems for the patient (3, 4). Therefore, it is important to employ appropriate methods to reduce pain and managing the pain after PCNL in the best way.

The effective treatment of postoperative pain can reduce complications, hospital stay, recovery time, and costs (5). The most common treatment to reduce post-operative PCNL pain is the use of non-steroidal anti-inflammatory drugs (NSAIDs) or opioids that can be linked with some side effects (6, 7).

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Therefore, alternative approaches such as the use of topical pain reduction can be a good alternative to opioids and NSAIDs. Paravertebral block (PVB) is a successful, non-complicating local anesthetic that is used in many surgical procedures to manage pain (8-10). It is suggested that the use of PVB in reducing pain after PCNL has had good results (5).

In the research by Hatipoglu et al., the important problem of post-PCNL pain reduction has been properly managed by the PVB method and its high efficacy contrary to opioids (tramadol) has been demonstrated (11). Evaluation of the PVB method is a good choice in this regard, which is appreciated by the authors, but the question arises as to why tramadol is selected as a method compared to PVB. Also, given the adverse effects of tramadol (such as nausea, seizure, and serotonin syndrome) and its significant interactions with other drugs, several issues remain unclear in this study. Because tramadol reduces pain through reuptake inhibition of serotonin and norepinephrine and can have similar effects to antidepressants such as Venlafaxine (12). Two major side effects of tramadol, seizures, and serotonin syndrome, are increased when tramadol and antidepressants are used concomitantly (13). Thus, because Hatipoglu et al., did not address these exclusion factors, the ambiguity of tramadol use would be more pronounced, and the authors would feel strongly left blank if the authors included these in the study.

Authors' contributions

VSH was responsible for the study conception and design. RM wrote the manuscript.

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Conflict of interest

The authors declare, there is no conflict of interest.

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Ethical statement

Not Applicable.

Data availability

Not Applicable.

Abbreviations

PCNL Percutaneous nephrolithotomy
PVB Paravertebral block
NSAIDs Non-steroidal anti-inflammatory drugs

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