Utility of Midodrine During the Recovery Phase of Shock: A Systematic Review and Meta-Analysis

W. Khokher, MD[1*], S. Iftikhar, MD[1], A. Beran, MD[1], C. Burmeister, MD[1], S. Malhas, MD[1], S. Malik, MD[1], O. Srour, MD[1], A. Abrahamian, MD[1], A. Alharbi, MD[1], N. Kesireddy, MD[1], T. Saif, MD[1], R. Assaly, MD[2]

[1]Division of Internal Medicine, Department of Medicine, The University of Toledo, Toledo, OH 43614

[2]Division of Pulmonary and Critical Care Medicine, Department of Medicine, The University of Toledo, Toledo, OH 43614

*Corresponding author: Waleed.Khokher@utoledo.edu

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Introduction: The use of midodrine is becoming common in the intensive care unit (ICU), but the data remains unclear. Therefore, we performed a meta-analysis of available randomized controlled trials (RCTs) to evaluate the efficacy and safety of using midodrine in conjunction with intravenous vasopressors (IVVs).

Methods: Comprehensive literature search of PubMed, Embase, Web of Science, and Cochrane Library databases from inception through April 07, 2022, for all published studies investigating the use of midodrine in the ICU in patients requiring IVV. Our primary outcome was the total duration of IVVs use. Secondary outcomes were IVV weaning time, ICU LOS, hospital LOS, and adverse events.

Results: 5 RCTs involving 346 patients (175 patients received midodrine plus IVVs and 171 received standard care with only IVVs or IVVs plus placebo) were included. There was no significant difference in total duration of IVV use, IVV weaning time, ICU LOS, hospital LOS, or adverse events between the two groups.

Conclusion: The addition of midodrine was not associated with a shorter duration of IVV use or quicker weaning of IVVs. Midodrine use also did not significantly reduce ICU and hospital LOS.

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