

LETTER to the EDITOR

Editorial Process: Submission:03/02/2024 Acceptance:04/11/2024

Efficacy of SARS-CoV-2 Vaccine Doses in Allogeneic Hemopoietic Stem Cell Recipients: Concerns

Asian Pac J Cancer Prev, 25 (4), 1111-1111

Dear Editor

we hereby discuss on ““ Efficacy of SARS-CoV-2 Vaccine Doses in Allogeneic Hemopoietic Stem Cell Recipients: A Systematic Review and Meta-Analysis [1].” The effectiveness of a third dose of the SARS-CoV-2 vaccination in recipients of alloHCT was the main topic of this systematic review and meta-analysis. Seven studies totaling 385 patients who got three doses of the vaccine were included in the review. The rate of seroconversion following the third dosage and among non-responders to the initial two-dose series were the main outcomes that were measured. Following the third dose, the data revealed a 74% humoral response rate, with a 49% seroconversion rate in those who had not responded to the first series.

The results may not be as broadly applicable as they may be because of the modest number of studies and individuals in the study. The external validity of the results may have been impacted by the fact that the studies that were part of the evaluation did not reflect a varied sample of alloHCT users. The assessment did not take the long-term stability of the immunological response into account, instead concentrating on the immediate effects of seroconversion following the third dose.

Effects of particular alloHCT types: The effectiveness of vaccines may be affected differently by different forms of alloHCT (e.g., matched unrelated donor, haploidentical transplant); however, this was not thoroughly investigated in the review. One significant but little-discussed aspect of alloHCT recipients' vaccination response is the impact of particular immunosuppressive drugs. AlloHCT recipients' antibody concentration and persistence after the third vaccination dose may offer important clues about long-term immunity, although they were not fully investigated.

As for future directions, it might think about carrying up long-term follow-up studies to evaluate how long the third vaccination dosage in alloHCT recipients provides protection. It will be helpful to look into individual characteristics that may affect this population's reaction to vaccination, such as HLA typing, immunological function, and drug regimes. It is also important to investigate the possible advantages of mixing several vaccine formulations or booster techniques to improve immune response in alloHCT recipients.

Author Contribution Statement

HD 50 % ideas, writing, analyzing, approval; VW 50 % ideas, supervision, approval

Acknowledgements

None.

Conflict of interest

Authors declare no conflict of interest

References

1. Rubin M, Suelzer E, Ulschmid C, Thapa B, Szabo A, Bilal Abid M. Efficacy of sars-cov-2 vaccine doses in allogeneic hemopoietic stem cell recipients: A systematic review and meta-analysis. *Asian Pac J Cancer Prev*. 2024;25(2):393-9. <https://doi.org/10.31557/apjcp.2024.25.2.393>.

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