LETTER to the EDITOR

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# Methodological Critique: Aloe Vera Gel Plus Urea Cream vs. Urea Cream Alone for Hand-Foot Syndrome in Capecitabine Therapy

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## Dear Editor

I am writing to express my thoughts on the recently published article titled " A Randomized Single-Blinded Phase II Trial Comparing Efficacy and Quality of Life of Topical Aloe Vera Gel Plus Urea Cream Versus Urea Cream Alone for Prevention of Hand Foot Syndrome in Cancer Patients Receiving Capecitabine" by Wanichtanom et al. (2024) in your esteemed journal [1]. The study contributes valuable insights into the potential benefits of aloe vera in mitigating hand-foot syndrome (HFS); however, there are several methodological concerns and limitations that warrant further discussion.

The generalizability of the results is limited due to the small sample size of 61 patients and the single-center design in Thailand. This narrow scope may not adequately represent diverse patient populations or healthcare settings. Additionally, the short follow-up period may not capture long-term efficacy and safety outcomes. The study's design also raises questions regarding potential bias [2]. While the dermatologist assessing the hand foot syndrome (HFS) grades was blinded to the treatment groups, the patients were not. This lack of double-blinding could introduce bias in the self-reported Dermatology Life Quality Index (DLQI) scores [3]. Furthermore, the authors did not adequately control for or report on potential confounding factors, such as patient comorbidities, prior skin conditions, or concurrent medications. Notably, more patients in the aloe vera + urea cream group had occupations potentially associated with increased HFS risk, and although this did not affect results on univariate analysis, more detailed reporting would enhance the study's credibility. The subjective nature of DLQI assessments is another issue. Self-reported measures can be influenced by patient expectations and perceptions. Incorporating more objective measures of functional impairment might provide additional insights. Moreover, the compliance rate was suboptimal, with only 76.7% in the aloe vera + urea cream group and 80.6% in the urea cream alone group, potentially impacting the study outcomes. The absence of a placebo control group also limits the strength of the study design. Including a third arm with a placebo could have provided a clearer picture of the aloe vera cream's efficacy. Additionally, although the severity of HFS was reduced, there was no significant difference in quality-of-life scores between the groups, which warrants further discussion. Finally, an analysis of the cost-effectiveness of adding aloe vera gel to the treatment regimen would be beneficial for clinical decision-making. Given the economic considerations in healthcare, understanding the financial implications is crucial [4].

In conclusion, while the findings of this study suggest a potential benefit of aloe vera plus urea cream in managing HFS, the limitations and generalizability concerns highlighted warrant further investigation in larger, more robust clinical trials. I hope these points will be considered in the ongoing discussion and interpretation of this research.

## Acknowledgments

None.

*Conflict of Interest*

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## References

1. Wanichtanom L, Vrakornvoravuti G, Boonsiri M, Suthepwanon A. A Randomized Single-Blinded Phase II Trial Comparing Efficacy and Quality of Life of Topical Aloe Vera Gel Plus Urea Cream Versus Urea Cream Alone for Prevention of Hand Foot Syndrome in Cancer Patients Receiving Capecitabine. Asian Pac J Cancer Prev. 2024;25(6):2203-2210. https://doi.org/10.31557/APJCP.2024.25.6.2203.
2. Ioannidis J. Why most published research findings are false. PLoS medicine. 2005;2:e124. https://doi.org/10.1371/journal.pmed.0020124.
3. Savović J, Jones HE, Altman DG, Harris RJ, Jüni P, Pildal J, et al. Influence of reported study design characteristics on intervention effect estimates from randomized, controlled trials. Ann Intern Med. 2012;157(6):429-38. https://doi.org/10.7326/0003-4819-157-6-201209180-00537.
4. Neumann PJ, Sanders GD, Russell LB, Siegel JE, Ganiats TG, editors. Cost-effectiveness in health and medicine. 2nd ed. New York: Oxford University Press; 2016.

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