



Comment on “Inflawell, neutrophil-to-lymphocyte ratio and COVID-19”

Rujittika Mungmunpantipantip¹ · Viroj Wiwanitkit²

Received: 24 February 2022 / Accepted: 5 March 2022 / Published online: 22 March 2022
© The Author(s), under exclusive licence to Springer Nature Switzerland AG 2022

Keywords Inflawell · Neutrophil-to-lymphocyte ratio · COVID-1

Abbreviation

COVID-19 Coronavirus disease 2019

Dear Editor,

We would like to share ideas on the publication “Inflawell() improves neutrophil-to-lymphocyte ratio and shortens hospitalization in patients with moderate COVID-19, in a randomized double-blind placebo-controlled clinical trial [1]”. Barzin et al. (2022) concluded that “*the treatment with Inflawell® resulted in shorter hospital stay, alleviation of COVID-19 clinical symptoms and decline in the level of pro-inflammatory cytokines.*” We agree that Inflawell® might useful for management of COVID-19. However, there are many confounding factors that might affect the measured outcome in the present report. In the present report, Barzin et al. (2022) set inclusion criteria for recruit COVID-19 patients. They used history of liver, kidney, and/or heart failure for exclusion. Therefore, it cannot rule out the case with asymptomatic abnormality such as cases with chronic silent asymptomatic hepatitis carrier status or cases with underlying hemoglobin disorder, which might further affect the measured outcome parameters such as complete blood count.

In this work, Barzin et al. (2022) reported on hospital stay as a main outcome. The hospital stay of COVID-19 case depends on several factors. The alternative therapy, quality of local supportive care and the local bed availability have to be considered. Another important reported parameter by Barzin et al. (2022) is neutrophil-to-lymphocyte ratio. This parameter is a possible usefulness clinical marker for monitoring case with COVID-19 (Lagunas-Rangel 2020). There

are no data on the analysis of this parameter in the present report. Basically, neutrophil-to-lymphocyte ratio is based on the basic complete blood count parameters, which are derived from automated hematology analyzer. The specification and quality control of the analysis using automated hematology analyzer should be mentioned. The variation among different analyzer might occur. Regarding neutrophil-to-lymphocyte ratio, it can be affected by different hematological analyzers as well as other confounding personal illness (Health Devices 1992; Takubo et al. 2002).

Author contributions RM 50%—1a Substantial contributions to study conception and design, 1b. Substantial contributions to acquisition of data, 1c. Substantial contributions to analysis and interpretation of data, 2. Drafting the article or revising it critically for important intellectual content, 3. Final approval of the version of the article to be published. VW 50%—1a Substantial contributions to study conception and design, 1b. Substantial contributions to acquisition of data, 1c. Substantial contributions to analysis and interpretation of data, 2. Drafting the article or revising it critically for important intellectual content, 3. Final approval of the version of the article to be published.

Funding None.

Availability of data and materials Not applicable.

Declarations

Conflict of interest The authors are from poor developing country and cannot pay for any charge and ask for full waiving for this correspondence letter.

Ethical approval and consent to participate Not applicable.

Consent for publication Not applicable.

✉ Rujittika Mungmunpantipantip
rujittika@gmail.com

¹ Private Academic Consultant, Bangkok, Thailand

² Dr. DY Patil University, Pune, India

References

- Barzin Tond S, Balenci L, Khajavirad N, Salehi M, Tafakhori A, Shahmohammadi MR, Ghiasvand F, Jafari S, Abolghasemi S, Mokhtari F, Mahmoodi Baram S, Zarei T, Kazemi D, Mohammadnejad E, Shah-Hosseini A, Haghbin Toutouchi A, Fallah S, Riazi A, Karima S (2022) Inlawell() improves neutrophil-to-lymphocyte ratio and shortens hospitalization in patients with moderate COVID-19, in a randomized double-blind placebo-controlled clinical trial. *Inflammopharmacology*. <https://doi.org/10.1007/s10787-022-00928-w>
- Health Devices (1992) Miles Technicon H.2 automated hematology analyzer. *Health Devices* 21:387–419
- Lagunas-Rangel FA (2020) Neutrophil-to-lymphocyte ratio and lymphocyte-to-C-reactive protein ratio in patients with severe coronavirus disease 2019 (COVID-19): a meta-analysis. *J Med Virol* 92(10):1733–1734. <https://doi.org/10.1002/jmv.25819>
- Takubo T, Tatsumi N, Satoh N, Matsuno K, Fujimoto K, Soga M, Yamagami Y, Akiba S, Sudoh T, Miyazaki M (2002) Evaluation of hematological values obtained with reference automated hematology analyzers of six manufacturers. *Southeast Asian J Trop Med Public Health* 33(Suppl 2):62–67

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.