

Research Review

Unlocking Nutritional Insights: The Power of Neutrophil-to-Lymphocyte Ratio as a Nutritional Indicator in Aging Adults

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As the population ages, there is an increasing need for accessible and reliable nutritional markers. This study explores the neutrophil-to-lymphocyte ratio (NLR) as a potential indicator of nutritional status, given its ease of measurement and association with inflammation.

The primary objective of the study was to evaluate if NLR could be used as an effective nutritional indicator compared to traditional markers such as the Mini-Nutritional Assessment Short Form (MNA-SF), albumin, and Body Mass Index (BMI).

Data for this study was obtained from the SABE study in Ecuador, which included participants aged 60 years or older. Neutrophil and lymphocyte counts were measured using complete blood count tests, and nutritional status was assessed using MNA-SF and BMI. Additionally, physical tests were conducted to evaluate functional status, while confounding variables such as age, sex, and comorbidities were considered.

The study included 1790 participants, with a median age of 68 years. Key findings revealed that:

- BMI and lymphocyte counts were higher in females, while NLR was higher in males.
- A negative association was observed between NLR and MNA-SF scores, **indicating that a higher NLR is associated with poorer nutritional status.**
- Lymphocyte count showed a positive association with MNA-SF scores.
- Physical tests like the Romberg test and the Five Times Sit-to-Stand test demonstrated correlations with NLR and lymphocyte count, respectively.
- **The relationship between NLR and nutritional status was found to be stronger compared to BMI**, suggesting that NLR could be a useful marker for routine nutritional assessment.

This marker can improve the understanding of the relationship between nutrition, inflammation, and overall health and may be useful across various medical fields. For registered dietitian nutritionists, NLR may be a valuable tool in nutritional assessments, particularly when direct weight measurement is challenging. Incorporating NLR into routine evaluations may help identify at-risk individuals and tailor interventions more effectively. Understanding the link between inflammation and nutrition can enhance the management of chronic conditions in older adults.

In conclusion, this study found that NLR is associated with nutritional status and may serve as a simple and affordable marker for assessing the nutritional health of older adults. However, additional research is needed to understand whether NLR can be broadly applied and validated as a nutrition indicator.

To access the full article, click [here](https://doi.org/10.1016/j.arcmed.2024.103003).