

## NLR and microalbuminuria: Are these markers significantly associated?

GIANFRANCO E. UMERES-FRANCIA, MARÍA V. ROJAS-FERNÁNDEZ, VICENTE A. BENITES-ZAPATA  
School of Medicine, Universidad Peruana de Ciencias Aplicadas, Lima, Peru

Dear Editor,

We have read the article “Association of neutrophil-to-lymphocyte ratio and microalbuminuria in patients with normal eGFR”, written by Kutlugun A *et al.* [1]. The issue is novel, however, we believe that there are methodological aspects that, if considered, could improve the interpretation and utility of the findings.

We consider that the authors erroneously decide to divide the participants according to albuminuria levels. Ideally, NLR and PLR should be considered exposure variables and microalbuminuria, an outcome variable. Subsequently, based on cutoff point, participants should be divided according to the levels of NLR and PLR and then the prevalence of microalbuminuria should be compared in the levels of the exposure variable.

Furthermore, the authors interpret the findings using only bivariate statistics and p-values. With the data collected, it would be possible to use a generalized linear model (GLM) of the Poisson family with robust standard errors to calculate prevalence ratios (PR) [2]. The PR allow to know the magnitude and direction of the association between exposures and outcome variables. Additionally, it would enable the confounding bias to be dealt with by constructing a multivariate model to consider the effect of all independent variables [3].

Within the limitations, the authors do not mention the possibility of selection bias since probabilistic sampling has not been done. Likewise, the lack of a sample size calculation and/or statistical power calculation is not mentioned in order to determine the possibility of beta type error. Neither is it mentioned that other confounding factors such as physical activity, nutritional status, and muscle mass could not be measured in the study.

In conclusion, we consider that NLR and PLR are good markers of microalbuminuria, easy and inexpensive to obtain by means of a blood count [4, 5]. However, it should be evaluated in future research taking into account the aforementioned methodological considerations.

**Correspondence to:** Vicente A. Benites-Zapata, School of Medicine,  
Universidad Peruana de Ciencias Aplicadas, Lima, Peru  
Tel: +51995523081  
E-mail: vbeniteszapata@gmail.com

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