

Response to “Anthropometric Indicators Predict Metabolic Syndrome Diagnosis in Maintenance Hemodialysis Patients: Methodological and Statistical Issues”

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With significant attention and interest, we read the comments by Sani and Ayubi regarding our recent article entitled “Anthropometric Indicators Predict Metabolic Syndrome Diagnosis in Maintenance Hemodialysis Patients.”¹ We appreciate the critical analysis of our results and the opportunity to answer it.

We think it is necessary to carefully discuss the issues raised in the letter. We agree accurate predictions cannot be guaranteed with a cross-sectional study. Perhaps the word *prediction* was not the best choice for the title. However, the meaning of the term *prediction* is also used with the same intention that we used in other cross-sectional studies,^{2–4} including some articles published in this journal.^{5,6}

The area under the receiver operating characteristic (ROC) curve and sensitivity and specificity values were used in this study to quantify the diagnostic ability of the test.^{7,8} In our study, waist-to-height ratio is the indicator used to distinguish between 2 diagnostic groups (with and without metabolic syndrome [MetS]).

Stepwise method was chosen because of the collinearity among the variables we wanted to test, which could affect the results of the multivariable logistic regression model to find the best anthropometric index associated with MetS. Beside multivariable logistic regression model, the association between MetS and anthropometric variables was tested using ROC curves. Waist-to-height ratio had the best association with MetS in both analyses. Moreover, the indexes that were best associated with MetS in ROC curve analysis are those that characterize central obesity. These results make sense in the clinical practice, since central obesity, particularly visceral, has been considered the key element in the development of MetS.⁹

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