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CORRESPONDENCE

Factors affecting serum sclerostin in postmenopausal women

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I read with interest the article titled "The relationship between postmenopausal women's sclerostin levels and their bone density, age, body mass index, hormonal status, and smoking and consumption of coffee and dairy products" by Kalem et al. [1]. The authors investigated the relationship between serum sclerostin levels, bone mineral density, and other related factors in 135 postmenopausal women. There was a positive relationship between serum sclerostin levels and body mass index in all subjects and also in sub-population, stratified by the existence of osteoporosis. In addition, negative relationships between serum sclerostin levels and bone mineral density scores in several parts of the body were observed, which were independent from age. Furthermore, there was no significant difference in the mean value of serum sclerostin levels in relation to smoking, coffee consumption, milk and dairy products, bisphosphonate use, histories of hypertension, and diabetes. I have a query about their study with special reference to statistical method.

The authors selected a univariate analysis to confirm the variables in relation to serum sclerostin levels. However, the appropriate adjustment by several factors is needed using multivariate analysis such as multiple linear regression analysis. As the authors handled 135 women, 13 independent variables can be used to predict serum sclerostin levels [2]. By adopting this procedure, adjusted square value of multiple regression coefficients, which is also called "coefficients of determination", can be calculated.

I understand that biological function of serum sclerostin levels has been reported in connection with osteoporosis and bone mineral formation [3, 4]. As the authors gathered several variables from postmenopausal women, I recommend a comprehensive analysis to confirm the net association between serum sclerostin levels and independent variables including bone mineral density and body mass index.

Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

Ethical approval This article does not contain any studies with human participations or animals performed by the author.

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