



■ Editorial

Does Changing the Ratio of Dietary Sodium-to-Potassium Intake Affect Bone Mineral Density?

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It is well known that various nutritional factors, such as calcium, vitamin D, and iron,¹⁾ as well as dietary factors, such as milk intake,²⁾ affect the level of bone mineral density (BMD). It is possible that salt and potassium intake also play an essential role. As a result, it is possible that the ratio of two nutrients, salt and potassium, influences BMD.

In the present issue, Lee et al.³⁾ investigated the relationship between dietary Na/K ratio and BMD in middle-aged Korean women. The authors found that the dietary Na⁺/K⁺ ratio decreased total femur and lumbar spine BMD from Q1 to Q4 (P-value for trend: 0.044 for total femur BMD and 0.002 for lumbar spine BMD). Based on the results of this study, a higher dietary Na⁺/K⁺ ratio may be linked to lower BMD.

The Na⁺/K⁺ ratio is well known to be closely related to hypertension, stroke, and cardiovascular disease.^{4,5)} A hypothesis regarding the relationship between the Na⁺/K⁺ ratio and osteoporosis was proposed implying that the dietary Na⁺/K⁺ balance has the potential to affect various health conditions and chronic diseases more than is currently known.⁶⁾

However, since the relationship between dietary sodium and potassium intake and BMD shown in this study was only proven in a cross-sectional study, it would be necessary to first establish this hypothesis through a cohort study.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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