COMMENTS AND RESPONSES

Low Serum Level of the Endogenous Secretory Receptor for Advanced Glycation End Products (esRAGE) Is a Risk Factor for Prevalent Vertebral Fractures Independent of Bone Mineral Density in Patients with Type 2 Diabetes

Response to Yamagishi

We thank Dr. Yamagishi for his letter (1) and for taking an interest in our recent article (2). We think that osteoporosis is an important complication of diabetes along with diabetic complications and arteriosclerosis. We proposed that the serum level of the endogenous secretory receptor for advanced glycation end products (esRAGEs) could be useful for assessing the risk of vertebral fractures in patients with diabetes. We agree with him that high-mobility group protein box-1 (HMGB1) might be another candidate marker for assessing the fracture risk. Indeed, a recent experiment by Zhou et al. (3) suggests that HMGB1 may play a role in bone metabolism. Dr. Yamagishi also purported that serum levels of esRAGE in humans are very low, and the biological effects are therefore questionable. However, accumulating evidence consistently shows that serum levels of esRAGE are inversely associated with adverse events (4). In contrast, it remains controversial whether the serum concentration of endogenous soluble form of receptor for advanced glycation end product (sRAGE) is positively or negatively correlated with some clinical events (5,6). These observations suggest that higher serum level of sRAGE per se does not exactly reflect its biological actions including binding and neutralizing capacities against advanced glycation end products (AGEs) in vivo. Thus, we think that it is worth pursuing the clinical significance of esRAGE as a marker for assessing the extent of diabetic complications in spite of its comparatively lower serum level than that of sRAGE.

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DOI: 10.2337/dc10-0109
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Acknowledgments— This study was supported in part by Grants-in-Aids No. 20791039 (to Ma.Y.) and No. 20590699 (to T.Y.) from the Ministry of Science, Education and Culture of Japan and by the 2008 Japan Osteoporosis Society Young Scientist Award (to Ma.Y.).

No potential conflicts of interest relevant to this article were reported.

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