The Author Response

Acute Effects of Intravenous Administration of Pamidronate in Patients with Osteoporosis

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Dear Editor

We appreciate the comments by Marcuzzi. Marcuzzi et al. (1) and we (2) showed that the pamidronate stimulates the secretion of proinflammatory cytokines in mouse model and in human respectively. Although we measured the acute phase response caused by intermittent large dose aminobisphosphate whereas Marcuzzi emphasized on the inflammatory effect of aminobisphosphate and its reversal by geraniol, the isoprenoid. Acute phase response, a notorious side effect of aminobisphosphate, typically occurs in about one third of patients taking aminobisphosphate for the first time (3). It was previously reported that after administration of large dose such as the dose for malignancy, proinflammatory cytokines were stimulated and thus, play a key role in acute phase response (4-6). We demonstrated the elevation of proinflammatory cytokines at the usual dose for osteoporosis. Marcuzzi et al. (1) successfully revealed that the inflammatory reaction caused by pamidronate could be alleviated by geraniol and we hope that the exogenous geraniol could help to lessen the acute phase response. In conclusion, we both agree with induction of inflammatory response by pamidronate. Further investigation is required on finding the way to reduce the acute phase response that does not abrogate the therapeutic benefit of the aminobisphosphonate, including the exogenous geraniol.

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