

Vitamin D and bisphosphonate response

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Dear Editor,

In their letter [1], Ortego-Jurado et al. report results of a prospective study of 61 postmenopausal women on chronic glucocorticoid therapy for mixed systemic autoimmune diseases. The women were being treated with a bisphosphonate as well as vitamin D for secondary osteoporosis. After 1 year, less than half of the patients showed a positive response (no loss of bone mass) with bisphosphonate treatment. This finding is said to be similar to our report [2] and other studies, which indicate that “real world” response to bisphosphonate treatment, may be less significant than that seen in published clinical trials.

The role of vitamin D in response to bisphosphonate therapy is an important clinical question. The above study addresses this among women with systemic autoimmune diseases on chronic glucocorticoid therapy—a population quite different from that of our study where women on chronic steroid therapy were excluded. The criteria for non-response was no loss of bone mass after 1 year, which differs from our criteria which also included very low BMD after 24 months, and incident fragility fracture during bisphosphonate treatment, in addition to a >3 % decline in BMD. Furthermore, the mean duration between DEXA scans in our study was 26 months; longer than the 1-year follow-up of this study. Patients in the study by Ortego-Jurado et al. may have been categorized differently in terms of

response status if a longer follow-up interval was allowed to elapse. Finally, this study reports a single value for the patients’ vitamin D level, whereas in our study, we reported the mean of several values over the course of therapy.

The effect of vitamin D on bisphosphonate response among patients with chronic autoimmune disease and on chronic glucocorticoid therapy may well be different than that of postmenopausal women on long-term treatment for primary osteoporosis. Vitamin D supplementation may play more of a role in response when observed over a longer period of time. Additional, larger, long-term studies are warranted to further clarify the role of vitamin D in bisphosphonate treatment among women on long-term steroid therapy.

References

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2. Carmel AS, Shieh A, Bang H, Bockman RS (2012) The 25(OH)D level needed to maintain a favorable bisphosphonate response is \geq 33 ng/ml. *Osteoporos Int* 23:2479–2487

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