Romosozumab increases bone mineral density post-menopause

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Michael R. McClung, M.D., from the Oregon Osteoporosis Center in Portland, and colleagues conducted a phase 2 study to examine the efficacy and safety of romosozumab over a 12-month period in 419 postmenopausal women, aged 55 to 85 years of age, with low bone mineral density. Participants were randomized to receive subcutaneous romosozumab every month (70, 140, or 210 mg) or every three months (140 or 210 mg), placebo, or an active comparator (70 mg weekly alendronate or 20 µg daily teriparatide).

The authors identified significant increases in bone mineral density at the lumbar spine with all dose levels of romosozumab, including a 11.3 percent increase with the 210-mg monthly dose, compared with a 0.1 percent decrease with placebo and 4.1 and 7.1 percent increases with alendronate and teriparatide, respectively. Large increases in bone mineral density were seen at the total hip and femoral neck, as well as transitory increases in bone-formation markers with romosozumab, while sustained decreases were observed in a bone-resorption marker. Adverse events were similar between the groups, except for mild, generally nonrecurring injection-site reactions with romosozumab.

"Romosozumab was associated with increased bone mineral density and bone formation and with decreased bone resorption," the authors write.

Several authors disclosed financial ties to pharmaceutical companies, including Amgen and UCB Pharma, which funded the study.

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