

Drug may help prevent bone fractures in patients on dialysis

December 11 2014

A drug that mimics calcium and lowers parathyroid levels may help prevent bone fractures in patients with kidney failure who are on dialysis, according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology (JASN)*.

Patients with [kidney failure](#) who are undergoing dialysis have an increased risk of [bone fractures](#), and the risk of dying after a hip fracture in such a patient is double that of the [general population](#). Unfortunately, none of the approved drugs for fracture prevention in osteoporosis in the general population are approved for use in patients on dialysis, and some are actually contraindicated.

Sharon Moe, MD (Indiana University School of Medicine and Roudebush Veterans Administration Medical Center) and her colleagues conducted a study to see whether cinacalcet, a drug that lowers [parathyroid hormone](#) (PTH), can reduce the risk of fractures in patients receiving [dialysis](#). These patients have elevated PTH levels due to problems with the way the body handles calcium when the kidneys are dysfunctional. In animals, lowering the level of PTH improves bone structure and reduces fractures.

The investigators conducted a planned secondary analysis of the EVOLVE trial, the largest study in hemodialysis patients to date. This study compared cinacalcet vs. placebo, on a background of standard of care. Clinical fractures were observed in 255 of 1935 (13.2%) patients randomized to placebo and 238 of 1948 (12.2%) patients randomized to

cinacalcet. While cinacalcet did not reduce the rate of clinical fractures in unadjusted analyses, it had a protective effect against fractures after the researchers accounted for differences in patient characteristics and events that prompted patients to discontinue treatment.

"Our results showed a reduction in fracture risk by 16% to 29% in the patients receiving cinacalcet when adjusted for other fracture risk factors like age," said Dr. Moe.

More information: The article, entitled "Effects of Cinacalcet on Fracture Events in Patients Receiving Hemodialysis: The EVOLVE Trial," will appear online at jasn.asnjournals.org/ on December 11, 2014.

Provided by American Society of Nephrology

Citation: Drug may help prevent bone fractures in patients on dialysis (2014, December 11)
retrieved 2 May 2024 from

<https://medicalxpress.com/news/2014-12-drug-bone-fractures-patients-dialysis.html>

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