

Abstract Type : Poster

Abstract Submission No. : PO-1124

Changes of BMD after Denosumab Treatment in Hemodialysis Patients with Osteoporosis: A Single-Center Experience

Sangeon Gwoo¹, Misun Kim¹, Dughyun Choi²

¹Department of Internal Medicine-Nephrology, SMG Yeonse Hospital, Korea, Republic of

²Department of Internal Medicine-Endocrine, Soonchunhyang University Bucheon Hospital, Korea, Republic of

Objectives: Chronic kidney disease exacerbates osteoporosis and the rate of fracture in ESRD (end-stage renal disease) patients is reported to be up to 17-fold higher than that of the general population. However, the treatment of osteoporosis in ESRD is complicated and not established due to different bone-mineral physiology from the general population. In this single center experience, we share our treatment experience of denosumab treatment in hemodialysis patients for 1-year period.

Methods: We retrospectively reviewed the denosumab-treated ESRD osteoporosis patients of SMG Yeonse Hospital from January 2018. 31 anti-osteoporotic drugs (estrogens, selective estrogen receptor modulators, bisphosphonates, parathyroid hormones) naïve patients who started denosumab since January 2018 were analyzed.

Results: 31 patients who underwent a BMD-DEXA test after 2 cycles of denosumab treatment were included in the analysis. The mean value of baseline BMD results of lumbar spine before treatment was 0.8520g/cm² and increased to 0.9070g/cm² after 2 cycles of denosumab treatment. This change was statistically significant. (p=0.04) The mean value of baseline BMD results of femur before treatment was 0.584g/cm² and a little improved to 0.6030g/cm² after treatment, but it was not statistically significant. (p=0.922)

Conclusions: Denosumab demonstrated an increase in bone mineral density in osteoporosis patients, but until now no data were available in Korean hemodialysis patients. This observational study suggested that denosumab is effective for spine BMD in Korean hemodialysis patients, and also suppressed bone loss in femur. We currently have limited options for treating osteoporosis in dialysis patients, but denosumab is expected to be effective in treating osteoporosis and preventing osteoporosis-related complications.

Figure 1. Spine BMD changes after denosumab treatment

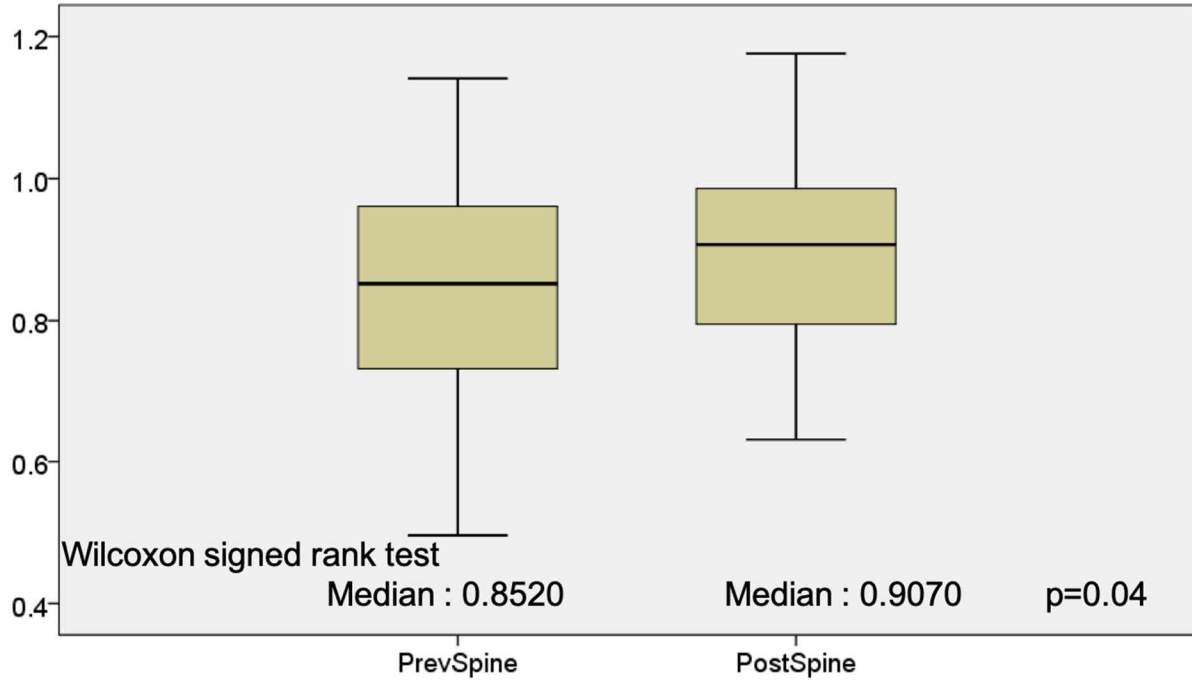


Figure 2. Femur BMD changes after denosumab treatment

