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Clinical impact of low BMD in elderly incident ESRD patients.

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Objectives: Patients with chronic kidney disease have a high risk of osteoporosis and fracture, which leads to high mortality, but studies on the factors affecting bone mineral density (BMD) in elderly ESRD patients are lacking. We evaluated factors affecting low BMD in elderly incident ESRD patients in Korea and their clinical impact.

Methods: From January 2010 to December 2017, 17 multicenter retrospective studies were conducted on incident ESRD patients aged 70 years or older, and cases without BMD results were excluded. Logistic regression analysis was used to identify factors affecting bone mineral density. Low BMD was defined as a T-score of less than -1.

Results: Of the total 710 patients, 58.6% (n=416) had low BMD, and compared to the normal BMD group, they were significantly younger, had a higher proportion of females, and had significantly higher serum i-PTH and LDH levels. had no significant difference. Compared to the normal BMD group, the low BMD group had significantly higher rates of cancer, rheumatoid disease, and poor mobility, and had significantly lower rates of arrhythmia and peripheral artery disease.
Logistic regression model revealed that low BMD was associated with female, poorer mobility, and use of diuretics. In addition, Multivariate Cox proportional hazard model showed that low BMD was associated with significantly higher mortality.

Conclusions: In elderly incident ESRD patients, low BMD was significantly associated with mortality, and unlike the general population, mobility had a higher correlation than age. It is necessary to pay attention to the behavior of elderly dialysis patients.