Secondary Hyperparathyroidism Among Incident Peritoneal Dialysis Patients

Scott P. Sibbel, PhD, MPH, DaVita Clinical Research, Minneapolis, MN; Paul Dluzniewski, PhD, MPH, Amgen Inc., Thousand Oaks, CA; Thy Do, PhD, MPH, Amgen Inc., Thousand Oaks, CA; Susan Yue, MD, Amgen Inc., Thousand Oaks, CA; Steven M. Brunelli, MD, MSCE, DaVita Clinical Research, Minneapolis, MN; Brian Bradbury, DSc, Amgen Inc., Thousand Oaks, CA

Introduction: Data regarding secondary hyperparathyroidism (SHPT) among patients receiving peritoneal dialysis (PD) are sparse. We evaluated biochemical parameters and treatments for SHPT among a representative cohort of incident PD patients in the United States to better understand the burden of the disease and current treatment practices.

Methods: The cohort included all patients whose first renal replacement modality was PD at a large dialysis organization (LDO) between Jan 1, 2008, and Feb 28, 2014 (N=11,376). Demographic and clinical characteristics were evaluated during baseline (30 days following PD initiation). Laboratory indices for the entire cohort and medication use among the sub-sample enrolled in LDO pharmacy benefits program [n=4268] were evaluated over 1 year or until censoring for modality change, death, transfer, or transplant.

Results: Among the cohort, mean (±SD) age was 57±15.5 years, 43% were female, 57% were white, 21% were black, and 58% had diabetes. Median parathyroid hormone (PTH) levels rose from 254 to 302 pg/mL over the first year. At baseline, mean (±SD) calcium and phosphorus levels were 8.9±0.9 mg/dL and 5.1±1.4 mg/dL, respectively, and remained fairly constant through follow-up. SHPT medication use among the cohort subsample was low at baseline, but increases in utilization over the 12-month follow-up reflected evidence of progressive disease: vitamin D use increased from 31% to 49%, while overall phosphate binder use increased from 11% to 31% and cinacalcet use increased from 1% to 7%.

Conclusions: SHPT was modest, yet progressed after PD initiation over the first year as evidenced by increases in PTH despite greater utilization of PTH-lowering therapies.

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