

CKD. BONE DISEASE

MO537 **EFFECTS OF COVID-19 ON MINERAL AND BONE DISEASE OUTCOMES IN HEMODIALYSIS PATIENTS: A RETROSPECTIVE STUDY FROM QATAR**

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BACKGROUND AND AIMS: Management of end-stage renal disease (ESRD) on dialysis has been challenging during the COVID19 epidemic. Staff illness led to a shortage of manpower that affected patient care. We established a specialty nursing management for mineral and bone disease (MBD) in the ambulatory dialysis service in Qatar in 2016. We are presenting a retrospective study about the effects of the COVID-19 epidemic on MBD outcomes in ambulatory dialysis patients in the State of Qatar.

METHOD: A retrospective cohort study in all adult patients with ESRD on chronic hemodialysis therapy (>1 month) in ambulatory dialysis clinics in the State of Qatar. Data collected were patient’s characteristics, laboratory and diagnostic investigations

for each patient through our electronic data system (nationwide). We focused on parathyroid hormone (PTH), calcium and phosphorus levels done routinely on monthly basis. The study duration was 31 months (January 2019–September 2021).

RESULTS: We included 623 patients. Age was 56 ± 11 years old and 61% were male. The main comorbidities were diabetes mellitus (63%), hypertension (92%) and cardiovascular disease (22%). The percentage of patients with PTH levels within targets ranged from 63 to 74%. It was stable before and during the first wave of COVID-19 in Qatar (March–June 2020) then dropped afterward briefly for 3 months (October–December 2020) (74% versus 63% respectively $P = 0.0003$). PTH level in target improved afterward and also during the second wave of COVID-19 (February–May 2021) but then dropped again for 3 months (July–September 2021) [72% versus 66% respectively $P = 0.02$ (graph below with details)]. Patients with phosphorus and calcium in the target were mostly stable [79% (77–83%) and 76% (74–79%), respectively].

CONCLUSION: Our retrospective study regarding the effect of the COVID-19 epidemic on MBD outcomes in hemodialysis (HD) showed a temporary drop in PTH level in the target without affecting calcium and phosphorus targets. The delayed drop after COVID-19 waves in PTH in target could be related to the routine quarterly measurement of PTH. We think that establishing a solid management system for MBD led to reasonably stable outcomes despite all challenges during the COVID-19 epidemic.

