



Acute and Stable Ischemic Heart Disease

TREATMENT OF PERIODONTAL DISEASE SIGNIFICANTLY AFFECTS THE RATE OF CARDIOVASCULAR EVENTS IN PATIENTS WITH CHRONIC KIDNEY DISEASE

Poster Contributions

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Background: Patients with chronic kidney disease stage V (CKD-V) are at increased risk of death due to cardiovascular disease (CVD). The prevalence of periodontal disease (POD) among those patients is also high. It is unknown whether periodontal examination and treatment of incidentally found POD may decrease the rate of major cardiovascular events (MACE) in this population.

Methods: A total of 409 patients with CKD-V on hemodialysis were included. The impact of periodontal examination and treatment of POD by debridement and/or tooth extraction on the incidence of MACE and death was prospectively determined in 206 patients and compared with that of 203 patients who did not undergo periodontal examination (historical control). Patients were followed for 24 months or until death or transplantation.

Results: The prevalence of moderate/severe POD in patients undergoing periodontal examination was 74%. Compared with historical controls, assessed subjects were younger (52.6 ± 11.5 vs. 55.2 ± 11.1 , $P=.02$) and have been longer on dialysis (24 vs. 17 months, median, $P=.01$). Event-free survival rates of MACE (94% vs. 83%, $P=.009$), coronary events (97% vs. 89%, $P=.009$), and CV death (96% vs. 87%, $P=.037$) were higher in the intervention group. All-cause death did not differ between groups. Multivariate analysis by Cox proportional hazard models adjusted for age, sex, smoking status, dyslipidemia, diabetes, CVD, time on dialysis, and previous coronary intervention showed that periodontal examination and POD treatment were associated with reduction in CV events (HR 0.43 [0.22-0.87]; $P=.019$), coronary events (HR 0.31 [0.12-0.83]; $P=.02$), and CV death (HR 0.43 [0.19-0.98]; $P=.045$), whereas smoking was a predictor of CV death (HR=2.31 [1.09-4.88]; $P=.03$).

Conclusion: The prevalence of POD in patients with CKD-V is high. Periodontal examination and treatment of incidentally found POD reduced the 24-month risk of MACE, including coronary-related events and CV death, but not all-cause mortality, thus suggesting a specific role of POD on cardiovascular prognosis in patients on dialysis. Based on our data, we propose that POD should be routinely screened for (and treated accordingly) in patients with CKD-V.