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**TITLE:** Chronic periodontitis is not associated with decreased kidney function

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**ABSTRACT BODY:**

**Objectives:**

Chronic kidney disease (CKD) is linked to a high morbidity and mortality worldwide. There is some evidence that periodontitis might also be related to CKD. We aimed to investigate the relationship between these two chronic diseases using data from the Study of Health in Pomerania (SHIP-0).

**Methods:** In total, 3332 subjects aged 20-81 years (1639 males) were included. Periodontitis was measured by clinical attachment loss (CAL). Mean CAL and the percentage of sites with CAL3+/4+mm (10% increments) were determined. Glomerular filtration rate (GFR) was calculated according to the MDRD formula and pathological kidney function was defined as GFR <60 mL/min/1.73m<sup>2</sup>. Linear and logistic models were adjusted for age, gender, education, smoking, high alcohol use, last dental visit, interdental care, diabetes, dyslipidemia, obesity and hypertension. Subjects with treated CKD were excluded.

**Results:** In linear models, mean CAL was not associated with GFR [B=0.16(95% CI,-0.13;0.44)]. Consistently, no associations were found for percentages of sites with CAL 3+mm [B=0.11(-0.05;0.28)] or the percentage of sites with CAL 4+mm [B=0.12(-0.04;0.29)]. Also, analyses using different parameterizations of periodontal variables using quartiles and the evaluation of dichotomized GFR in logistic models confirmed the previous results (p>>0.05).

**Conclusions:** Chronic periodontitis is not significantly associated with kidney function. In contrast to previously published studies, our results suggest that periodontitis may not be an independent risk factor for CKD.

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