

Nexus between Periodontal Disease and Chronic Kidney Disease: A Narrative Review

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Abstract	<p>Background: Several decades of research have established the relationships between systemic diseases and periodontal diseases. Chronic kidney disease (CKD) is a chronic medical condition in which the homeostatic and emunctory activity of the kidneys is progressively declines. Periodontitis is a complex, polymicrobial disease that involves both the host and the environment. Tissue destruction is primarily associated with the host's hyperresponsiveness, resulting in the release of inflammatory markers. Aim: This paper reviewed the evidence linking CKD, inflammatory markers, and periodontal disease and the effect of periodontal therapy on inflammatory markers and kidney function as well as dental parameters. Setting and Design: The sources of data were compiled and reviewed from MEDLINE, SCOPUS and Web of Sciences from 2010 to 2021. Result and Discussion: This review identifies biologically plausible bidirectional nexus between periodontitis and CKD. Periodontitis has emerged as non-traditional risk factor of CKD and vice versa. In addition, inflammatory markers are considered to play a role in the linkages between periodontitis and CKD. Recent study, has linked an increase in the production of inflammatory markers to a poorer renal outcome in patients with CKD. Periodontal therapy is effective in lowering the inflammatory markers levels and periodontal parameters as well as halting the progression of CKD. Conclusion : Understanding these links may help in identifying high-risk individuals and providing essential care at an early stage.</p>
Keywords	<p>Author Keywords: chronic kidney disease; periodontitis; systemic inflammation; non-surgical periodontal therapy; risk factor; inflammatory markers</p> <p>Keywords Plus: GINGIVAL CREVICULAR FLUID; BIDIRECTIONAL RELATIONSHIP; ASSOCIATION; THERAPY; HEALTH; INTERLEUKIN-6; EPIDEMIOLOGY; HEMODIALYSIS; IMPAIRMENT; MECHANISMS</p>
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