

INPLASY

The influence of Parkinson's disease on periodontal diseases: a systematic review

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 9 April 2026 and was last updated on 9 April 2026.

INTRODUCTION

Review question / Objective This systematic review aims to evaluate the impact of Parkinson's disease, even in its early stages, on oral health, with a particular focus on periodontal diseases, and to provide a better understanding of how disease progression may influence periodontal health.

Condition being studied Parkinson's disease and periodontal diseases.

METHODS

Participant or population Patients with Parkinson's disease.

Intervention No intervention.

Comparator Healthy individuals (controls without parkinson's disease).

Study designs to be included Observational studies, Case-control, Cohort, Cross-sectional.

Eligibility criteria Inclusion: Studies identified through the selected databases will be included if they were published between 2014 and 2024. Only clinical studies conducted on human subjects will be considered.

Exclusion: Articles that do not meet the objectives of the review based on the screening of abstracts and critical appraisal of the full text will be excluded. Experimental studies conducted on animals, case reports, and literature reviews will also be excluded.

Information sources PubMed, ScienceDirect, Google scholar.

Main outcome(s) The main outcomes of this review will include periodontal clinical parameters such as probing pocket depth (PPD), clinical attachment loss (CAL), gingival index (GI), and plaque index (PI). These parameters will be used to

assess the impact of Parkinson's disease on periodontal health.

Quality assessment / Risk of bias analysis The risk of bias of the included studies will be assessed using the Cochrane Collaboration tool.

Strategy of data synthesis Qualitative synthesis.

Subgroup analysis Qualitative synthesis.

Sensitivity analysis A sensitivity analysis will be conducted to assess the robustness of the results by excluding studies with a high risk of bias.

Country(ies) involved Morocco.

Keywords Parkinson's disease, periodontal diseases, periodontal index, oral hygiene, oral microbiome, cytokines, neuroinflammation.

Contributions of each author

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