

INPLASY

Effect of periodontal treatment in patients with periodontitis and diabetes: Evaluation of meta-analyses published in the last five years using AMSTAR-2 and ROBIS tools

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López-Valverde, N; Blanco Rueda, JA.

Corresponding author:

Nansi López-Valverde

nlovalher@usal.es

Author Affiliation:

University of Salamanca.

ADMINISTRATIVE INFORMATION

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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 16 May 2024 and was last updated on 16 May 2024.

INTRODUCTION

Review question / Objective Is surgical and/or adjuvant periodontal treatment in patients with periodontitis and diabetes effective on periodontal indices and blood glucose levels?

Condition being studied Periodontitis is a chronic inflammatory pathology, of infectious origin and associated with the accumulation of dental microbial biofilm, generally caused by untreated gingival inflammation, which affects the supporting structures of the tooth and is manifested by progressive destruction of the periodontal ligament and alveolar bone. In the last decades numerous investigations have studied the association of periodontitis with other systemic pathologies, such as diabetes, cardiovascular diseases, metabolic bone pathologies, premature birth... and recently, Alzheimer's disease and

certain inflammatory and oncologic pathologies. Diabetes is the pathology most closely related to periodontitis and it is well known that patients with this pathology, especially in uncontrolled situations, are at high risk of developing periodontitis, as well as the impact of periodontitis on the glycemic control of diabetes mellitus.

METHODS

Participant or population Systematic reviews with meta-analyses that included randomized clinical trials performed in adult subjects with a diagnosis of periodontitis and type 2 diabetes.

Intervention Surgical or non-surgical periodontal treatment and/or adjuvant treatments.

Comparator Untreated or placebo-treated subjects.

Study designs to be included Only Systematic Reviews with meta-analyses that performed a literature search in at least 2 databases, that contained a detailed explicit method and that assessed the quality of the included studies were considered.

Eligibility criteria The inclusion criteria were established according to the PICO structure: Systematic Reviews with meta-analyses that included randomized clinical trials performed in adult subjects with a diagnosis of periodontitis and type 2 diabetes (population), subjected to surgical or non-surgical periodontal treatment and/or adjuvant treatments (intervention) and compared with untreated or placebo-treated subjects (comparison) to observe the effects on periodontal indices and/or glycemic level (results).

Only Systematic Reviews with meta-analyses that performed a literature search in at least 2 databases, that contained a detailed explicit method and that assessed the quality of the included studies were considered.

Information sources MEDLINE/PubMed, Embase, Cochrane Central, Web of Science.

Main outcome(s) Effects on periodontal indices and/or glycemic level.

Quality assessment / Risk of bias analysis Using the AMSTAR-2 and ROBIS tools.

Strategy of data synthesis Using the AMSTAR-2 and ROBIS tools.

Subgroup analysis No subgroups.

Sensitivity analysis No sensitivity analysis.

Country(ies) involved Spain.

Keywords periodontitis; diabetes; periodontal treatment; humans; meta-analysis.

Contributions of each author

Author 1 - Nansi López-Valverde - Author 1: Conceptualization, methodology, formal analysis, writing—review and editing.

Email: nlovalher@usal.es

Author 2 - José Antonio Blanco Rueda - Author 2: Conceptualization, methodology, formal analysis, writing—review and editing.

Email: jablancor@usal.es