

INPLASY PROTOCOL

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None declared.

Clinical efficacy evaluation of Papilla Preservation Technique alone or combined with other biomaterials in the treatment of deep intrabony defect. A Meta-analysis

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Review question / Objective: The objective of this Meta-analysis review is: 1) to analyze the effectiveness of papilla preservation flap used for the regenerative treatment of deep intrabony defects in periodontitis patients; 2) to compare the efficacy of the papilla preservation flap with or without EMD or GTR or rhFGF-2 or PRF; 3) To this end, the proposed study will answer the following question: What is the best appropriate techniques for the regenerative treatment of deep intrabony defects?

Condition being studied: The deep intrabony defects in patients with periodontitis..

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 22 April 2021 and was last updated on 22 April 2021 (registration number INPLASY202140114).

INTRODUCTION

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periodontitis patients; 2) to compare the efficacy of the papilla preservation flap with or without EMD or GTR or rhFGF-2 or PRF; 3) To this end, the proposed study will answer the following question: What is the best appropriate techniques for the

regenerative treatment of deep intrabony defects?

Condition being studied: The deep intrabony defects in patients with periodontitis.

METHODS

Participant or population: We will include studies examining the medically healthy humans (15 years or older) undergoing the deep intrabony defects for periodontitis. None restrictions about sex, gender, or ethnicity will be applied on the population of study.

Intervention: Applying PPF technique alone or in combination with different biomaterials for the treatment of deep infrabony defect.

Comparator: 1)the deep infrabony defect without any additional intervention (baseline) vs. PPF; 2) PPF alone or in combination the different biomaterials.

Study designs to be included: Randomized controlled clinical trials.

Eligibility criteria: Studies will be selected according to the PICOS criteria (Participant, intervention, comparator, outcomes, and study design) outlined in the referred sections.

Information sources: Controlled Trials (CENTRAL), and Embase database. here will be no language restrictions and no year restriction. We will use the PICOS strategy for the research question construction and evidence search. The reference lists of the articles identified will be cross-checked. Furthermore, and studies from the 'grey literature' will be screened through the following trial registry platform: [clinicaltrials.gov](http://www.clinicaltrials.gov) (<http://www.clinicaltrials.gov>). A manual search will be done in the relevant journals of Dentistry. We will contact study correspondent authors to solve any uncertainties.

Main outcome(s): The outcome variable was the change in pocket depth (PD), clinical attachment level (CAL) and gingival recession (REC).

Quality assessment / Risk of bias analysis: The methodological quality of included studies was assessed using the Newcastle-Ottawa (NOS) scale by two authors.

Strategy of data synthesis: We will 1) provide a quantitative and narrative synthesis. 2) provide summaries of intervention effects for each study by calculating standardized mean differences or mean differences. 3) pool the results using a fixed or random-effects meta-analysis. 4) Heterogeneity will be assessed using both the χ^2 test and the I^2 statistic. 5) consider an I^2 value greater than 50% indicative of substantial heterogeneity. In addition to the heterogeneity assessment using the I^2 statistic, the assumption of transitivity and similarity based on clinical and methodological characteristics will be assessed. The inconsistency will be explored using the Net Heat Plot. 6) We will also assess evidence of publication bias.

Subgroup analysis: None.

Sensitivity analysis: Potential heterogeneities will be explored through specific tests (chi-squared and Egger tests) and by excluding of outliers.

Language: There is no language restriction.

Country(ies) involved: Switzerland; Italy; Turkey; Brazil; UK; USA; Spain.

Keywords: deep intrabony defect; chronic periodontitis; meta-analysis.

Contributions of each author:

Author 1 - Yunping Pan - The author will draft the protocol and the manuscript. Contributed to the development of the selection criteria, the risk of bias assessment strategy, and data extraction criteria. The referred author developed the search strategy and provided statistical expertise. The risk of bias assessment and

screening of search studies against eligibility.

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Author 4 - Xuezhen Peng - The author will draft the manuscript. The risk of bias assessment and screening of search studies against eligibility criteria. The author will read, provided feedback, and approved the final manuscript.

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