INPLASY

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COMPARISON OF RELAPSE OF ORTHODONTIC TREATMENT WITH ALIGNERS VERSUS CONVENTIONAL FIXED APPLIANCES: A SYSTEMATIC REVIEW

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ADMINISTRATIVE INFORMATION

Support - self financed.

Review Stage at time of this submission - The review has not yet started.

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 30 June 2023 and was last updated on 30 June 2023.

INTRODUCTION

Review question / Objective Question: What will be the amount of relapse in millimeters presented by patients who received orthodontic treatment with dental aligners versus conventional treatment with fixed appliances evaluated in a systematic review of analytical studies?

Rationale This research will have a clinical contribution because it will inform the dentists the importance of the amount of relapse in millimeters that is generated After performing the orthodontic treatment with aligners, you will also have a social contribution since once the results of the study are demonstrated, the orthodontist will be able to take preventive measures to have a better control with the patients who opt for orthodontic treatment with aligners.

Condition being studied Relapse of orthodontic treatment with aligners versus conventional fixed appliances.

METHODS

Search strategy ("Relapse" AND "Invisalign" OR "Clear Aligner" AND "Fixed Orthodontic Appliances").

Participant or population Individuals with permanent dentition with mild, moderate, and severe malocclusion, who have received orthodontic treatment and have been discharged, age seventeen or older, of any gender and race.

Intervention The amount of relapse in millimeters of the orthodontic aligners.

Comparator The amount of relapse in millimeters for conventional orthodontics with fixed appliances.

Study designs to be included Analytical studies, clinical trials, retrospective studies.

Eligibility criteria None.

Information sources The search strategies will be applied in the following electronic databases: MEDLINE (Via PubMed), EBSCO, and ESCOPUS. The search strategies will be limited to humans, with a restriction of the last 5 years in Spanish, English and Portuguese.

Main outcome(s) Quantity of dental relapse as the main result, calculating the quantitative displacement of the relapse.

Additional outcome(s) The relapse rate will be evaluated as well as the number of hours of daily use of the post-orthodontic support devices and the most used post-orthodontic retainers.

Data management The selection of studies will consist of 2 phases. In the first phase, the two authors will independently evaluate the titles and/or abstracts. Likewise, references that meet the selection criteria will be taken into account and articles that are not relevant to the research topic will be eliminated. In the next phase of selection of articles. The authors will again evaluate independently the content of the chosen articles. Those studies that meet the selection criteria will be included. In both phases the differences will be resolved by mutual agreement, if a consensus is not reached, the help of the advisor will be used to define if the article will be used in the final evaluation.

Quality assessment / Risk of bias analysis Risk of bias in non-randomized controlled trials will be verified using the Risk of Bias in Nonrandomized Studies of Interventions (ROBINS) tool. The following items will be assessed: confounding bias, exposure measurement bias, selection bias, intervention bias, missing data bias, outcome measurement bias, bias found in selective reporting. Bias in each item and overall risk of bias for non-randomized trials will be judged as low, moderate, serious, critical, or missing information.

Strategy of data synthesis Data extraction from the articles was performed independently and in duplicate by the two authors. A standardized table will be used and the following data will be extracted: authors, year of publication, type of study, description of the groups (sex, age of the patient), sample size, initial characteristics of the sample, and results.

Subgroup analysis In this study, 2 groups are evaluated: post-orthodontic treatment with aligners and post-orthodontic treatment with conventional fixed appliances in patients who used a containment appliance between 6 and 18 months.

Sensitivity analysis In this systematic review, the number of articles that measure the variable with the same measurement method and units will be evaluated. If more than three articles are obtained with the same form of review, a meta-analysis is performed.

Language restriction Spanish ,English and Portuguese.

Country(ies) involved Perú.

Other relevant information None.

Keywords Relapse; Invisalign; Clear Aligner; Fixed Orthodontic Appliances.

Dissemination plans Once the investigation is finished, the diffusion is sought through the publication of the article in a specialized magazine of the area.

Contributions of each author
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