

CONTROL ID: 2944006

TITLE: Meta-analysis for identifying the best method for chronic periodontitis therapy

PRESENTATION TYPE: Poster

CURRENT METHODOLOGICAL TOPICS: Other biometrical related topics

CURRENT APPLICATION AREAS: Health services

ABSTRACT BODY:

Abstract Body: Periodontitis is a multifactorial inflammatory disease, caused by dental biofilm and other local and systemic factors. Chronic periodontitis is a more prevalent type of periodontitis in the population. For their treatment, traditional mechanical methods as scaling and root planning (SRP) are applied. At present newer ones, such as antimicrobial, bactericidal and laser, are used in combination with traditional method. Published clinical trial papers present conflicting results about the best therapy for chronic periodontitis, which is why it is necessary to determine the evidence on this matter. Meta-analysis is a form of research synthesis that allows researchers to quantitatively integrate the results from a set of studies on the same issue. The aim of this work was applied meta-analysis method on clinical trial studies in order to identify the best method to improve clinical outcomes in the therapy of chronic periodontitis. This study was done according PRISMA guidelines. It was conducted a meta-analysis of studies of randomized clinical trials from the MEDLINE, Scielo and Cochrane databases, in which the investigators evaluated, the Plaque Index (PI), Bleeding Index (BI), the Probing Depth (PD) and Clinical Attachment Loss (CAL) in test groups and in control groups of adult patients, between July 30th 2016 and July 30th 2017. Meta-analysis was performed using Standardized Mean Difference (SMD). The heterogeneity was investigated by the Q-test and the I² statistic. The meta and metafor packages of R software 3.4.3 (2017) was used. The measurements Clinical Attachment Loss, Probing Depth, Bleeding Index and Plaque Index showed a high heterogeneity. The subgroup analysis was used for investigating whether studied characteristics may explain heterogeneity. Therefore the studies were grouped according to the type of treatment that the patients received (physics or bactericide methods), thus the heterogeneity of some variables was diminished. Conclusion: the PI improved by traditional method SRP meanwhile BI improved with physic methods.

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AWARDS: