META-ANALYSIS THE ASSOCIATION BETWEEN OVERWEIGHT AND PERIODONTITIS IN ADULTS

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ABSTRACT

Background: Recent studies showed that obesity has been suggested to be a risk factor for periodontitis. Its correlation is one of the most recent fields of research in periodontal medicine and the possible underlying biological mechanisms remain unclear. The purpose of this study was to evaluate the association between overweight and periodontitis in adults using systematic review and meta-analysis.

Subjects and Method: A systematic review and meta analysis was conducted by collecting articles from PubMed, ScienceDirect, and Google Scholar databases. The determination of selected articles based on eligible criteria using PICO: (1) Population= adults, (2) Intervention= overweight, (3) Comparison= normal weight, and (4) Outcome= periodontitis. Keywords used “Adult” AND “overweight” OR “body mass index” AND “periodontitis” OR “periodontal disease” AND “adjusted odds ratio”. The inclusion articles were full text, published from year 2000 to 2021, and cross sectional study. The articles were collected by PRISMA flow diagram. Selected articles were assessed using Review Manager 5.3.

Results: There were 8 studies selected for meta-analysis. This study found that overweight increased the risk of periodontitis in adults 1.17 times than adults with normal weight (aOR= 1.17; 95% CI= 1.04 to 1.31; p= 0.008). The funnel plot reported that there was no bias publication.

Conclusion: Overweight increased the risk of periodontitis in adults.

Keywords: overweight, body mass index, periodontitis, periodontal disease

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