

Relationship of toothbrushing to metabolic syndrome in middle-aged adults

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<https://hdl.handle.net/2324/2236147>

出版情報 : Kyushu University, 2018, 博士 (歯学) , 課程博士

バージョン :

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論 文 名 : Relationship of toothbrushing to metabolic syndrome in middle-aged adults
(中高年者における歯磨きとメタボリックシンドロームの関連)

区 分 : 甲

論 文 内 容 の 要 旨

Aim: To examine the effect of toothbrushing on the development of metabolic syndrome (MetS), including assessment of periodontal status, in middle-aged adults.

Methods: This 5-year follow-up retrospective study was performed in 3,722 participants (2,897 males and 825 females) aged 35–64 years who underwent both medical check-ups and dental examinations. Metabolic components included obesity, elevated triglycerides, blood pressure, fasting glucose and reduced high-density lipoprotein. Toothbrushing frequency was assessed using a questionnaire. Periodontal disease was defined as having at least one site with a pocket depth of ≥ 4 mm. Logistic regression analysis was performed to evaluate the relationship between toothbrushing frequency at the baseline examination and the development of MetS (≥ 3 components).

Results: During follow-up, 11.1% of participants developed MetS. After adjusting for potential confounders including periodontal disease, participants with more frequent daily toothbrushing tended to have significantly lower odds of developing MetS (p for trend = .01). The risk of development of MetS was significantly lower in participants brushing teeth ≥ 3 times/day than in those brushing teeth ≤ 1 time/day (odds ratio = 0.64, 95% confidence interval = 0.45–0.92).

Conclusions: Frequent daily toothbrushing was associated with lower risk of development of MetS.