

THE CO-OCCURRENCE OF THE TWO MAIN ORAL DISEASES: PERIODONTITIS AND DENTAL CARIES

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Aim: No studies are available testing, through multivariate models, the association between the two main oral diseases: dental caries and periodontitis.

The aim of this cross-sectional population-based study was to verify whether dental caries and periodontitis co-occur in a representative sample of the South Korea population.

Materials and Methods: A total of 23,405 subjects representative of 36.2 million of adults were examined. Univariate and multivariate regression analyses using 5 different models were applied, controlling for age, gender, smoking status, frequency of tooth-brushing, use of interproximal toothbrushes and flossing, educational level, income, gum diseases treatment and tooth filling in the previous year, BMI, Vitamin D serum levels, alcoholism, diabetes status, stress and carbohydrates dietary intake.

Results: In the fully-adjusted model, participants with periodontitis had, respectively, a mean of 0.82 (95% CI: 0.41-1.23) and of 0.36 (95% CI: 0.22-0.50) more untreated decayed surfaces and teeth than participants without periodontitis, with an OR to have at least one untreated decayed surface of 1.96 (95% CI: 1.66-2.32). However, cumulative caries experience (DF scores) and periodontitis were not associated.

Conclusions: In this large nationally-representative population, periodontitis and untreated dental caries co-occur, independently from common risk factors. However, when considering cumulative caries experience (DF scores), the two diseases appear not to be independently related.