

THE CORRELATION OF SALIVA pH WITH THE HYSTORY OF DENTAL CARIES IN JUNIOR HIGH SCHOOL STUDENTS

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ABSTRACT

Background: Dental caries is a dental tissue disease characterized by tissue damage, starting from the surface of the tooth (niche, fissure and interproximal area) extending towards the pulp. Dental caries is a multifactorial process that occurs through the interaction between teeth and saliva as a direct factor, bacteria in the oral cavity, and easily fermented foods. Among these various factors, saliva is one factor that has a big influence on the severity of dental caries. The degree of acidity (pH) of saliva is one of the important factors that play a role in dental caries, periodontal abnormalities, and other diseases in the oral cavity. The acidity of the saliva in normal conditions are between 5.6-7.0 with an average pH of 6.7.

Research objective: The research aimed to find the correlation between salivary pH and the history of dental caries in junior high school students at Muhammadiyah Junior High School 1, Godean, Sleman, Yogyakarta.

Research Methods: This study is a correlative study, with a cross-sectional method. The research was conducted in December 2018. The population of this study was seventh grade students of Muhammadiyah 1 Godean Junior High School, Sleman, Yogyakarta, totalling of 60 students with total sampling technique.

Research Results: The data was processed by employing cross tabulation with the Kendall-Tau test. The results showed that the significance value (p) = 0.192 > 0.05 which means that H_0 was accepted and H_a was rejected. The correlation coefficient was -0.139.

Conclusion: There is no significant correlation between salivary pH and the history of dental caries in seventh grade students of Muhammadiyah 1 Godean Junior High School.

Keywords: salivary pH, dental caries, junior high school students

HUBUNGAN *pH* SALIVA DENGAN PENGALAMAN KARIES GIGI PADA SISWA SMP

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ABSTRAK

Latar Belakang : Karies gigi adalah penyakit jaringan gigi yang ditandai dengan kerusakan jaringan, dimulai dari permukaan gigi (ceruk, *fissure* dan daerah interproksimal) meluas ke arah pulpa. Karies gigi merupakan proses multifaktor yang terjadi melalui interaksi antara gigi dengan saliva sebagai faktor langsung, bakteri di dalam rongga mulut, serta makanan yang mudah difermentasikan. Diantara berbagai faktor tersebut, saliva menjadi salah satu faktor yang mempunyai pengaruh besar terhadap keparahan karies gigi. Derajat keasaman (*pH*) saliva merupakan salah satu faktor penting yang berperan dalam karies gigi, kelainan periodontal, dan penyakit lain di rongga mulut, derajat keasaman saliva dalam keadaan normal antara 5,6-7,0 dengan rata-rata *pH* 6,7.

Tujuan Penelitian : Mengetahui hubungan *pH* saliva dengan pengalaman karies gigi pada siswa SMP di SMP Muhammadiyah 1 Godean, Sleman, Yogyakarta.

Metode Penelitian : Penelitian ini merupakan suatu penelitian korelatif, dengan metode *cross-sectional*. Penelitian ini dilaksanakan pada bulan Desember 2018. Populasi penelitian ini adalah siswa kelas VII SMP Muhammadiyah 1 Godean Sleman Yogyakarta yang berjumlah 60 siswa dengan teknik total *sampling*.

Hasil Penelitian : Pengelolaan data dilakukan dengan tabulasi silang dengan uji *Kendall-Tau*. Hasil penelitian menunjukkan bahwa nilai signifikansi (p) = 0,192 > 0,05 yang berarti H_0 diterima H_a ditolak, koefisien korelasi sebesar -0,139.

Kesimpulan : Tidak ada hubungan yang signifikan antara *pH* saliva dengan pengalaman karies gigi pada siswa kelas VII SMP Muhammadiyah 1 Godean.

Kata Kunci : *pH* saliva, karies gigi, siswa SMP