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Perbandingan pH Saliva Sebelum dan Sesudah Mengonsumsi Larutan Gula Pasir dan Gula Aren pada Mahasiswa Fakultas Kedokteran Gigi Universitas Andalas

ix + 58 Halaman + 8 Tabel + 5 Gambar + 1 Grafik + 8 Lampiran

ABSTRAK

Gula (sukrosa) adalah suatu senyawa karbohidrat yang mudah larut dalam air dan langsung diserap tubuh untuk diubah menjadi energi. Diet gula (sukrosa) dapat mempengaruhi pH saliva, dimana senyawa ini di dalam rongga mulut mengalami fermentasi yang menghasilkan zat asam yang dapat menurunkan pH saliva dan hasil dari aktivitas ini akan mengawali proses demineralisasi struktur gigi. Gula bubuk aren mengandung sukrosa lebih tinggi yaitu 84% dibandingkan gula tebu yaitu 20% (Adli, 2010). Tujuan penelitian ini adalah untuk mengetahui perbedaan perbandingan pH saliva sebelum dan sesudah mengonsumsi larutan gula pasir dan gula aren

Penelitian ini merupakan penelitian eksperimental menggunakan metode pendekatan *pre-test and post-test design*. Jumlah sampel yang digunakan sebanyak 26 orang. Masing-masing sampel diberikan perlakuan mengonsumsi larutan gula pasir dan gula aren. Pengukuran pH saliva menggunakan *dental saliva pH indicator*. Analisis data menggunakan uji Wilcoxon.

Hasil penelitian didapatkan rata-rata selisih pH saliva sesudah mengonsumsi larutan gula pasir sebesar $0,57 \pm 0,32$ sedangkan rata-rata selisih pH saliva sesudah mengonsumsi larutan gula aren sebesar $0,67 \pm 0,40$. Nilai $p > 0,05$ sehingga tidak terdapat perbedaan yang bermakna.

Berdasarkan penelitian yang telah dilakukan, dapat disimpulkan mengonsumsi larutan gula pasir dan larutan gula aren sama-sama menurunkan pH saliva.

Kata kunci: pH saliva, larutan gula pasir, larutan gula aren

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**Comparison of Salivary pH Before and After Consuming A Solution of
Sugar and Palm Sugar in Dentistry Faculty's Student of Andalas University**
ix + 58 Pages + 8 Tables + 5 Pictures + 1 Graph+ 8 Attachments

ABSTRACT

Sugar (sucrose) is a carbohydrate compound which is soluble in water and directly absorbed by the body to convert into energy . Diet sugar (sucrose) can affect the pH of saliva , where the compounds have fermented in the mouth which produces acid to lower the pH of saliva and the results of this activity will initiate the process of demineralization of tooth structure. The palm sugar contains sucrose higher at 84 % compared with 20 % of sugar cane. The purpose of this study was to determine differences in comparison the pH of saliva before and after consuming a solution of sugar and palm sugar

This study was an experimental study using pre-test and post-test design. The samples used as many as 26 people. Each sample was given treatment consumes sugar and palm sugar solution. Salivary pH measurements using dental saliva pH indicator. Analysis of data using the Wilcoxon test.

The result show an average difference in the pH of saliva after consuming a solution of sugar of 0.57 ± 0.32 while the average difference in the pH of saliva after consuming palm sugar solution at 0.67 ± 0.40 . The value of $p > 0.05$ so there is no significant difference.

Based on the research that has been done, it can be concluded that consuming a solution of sugar and palm sugar solutions together can decrease the pH of saliva.

Keywords : salivary pH , sugar solution , palm sugar solution