INTISARI

Karies gigi merupakan sebuah penyakit yang merusak lapisan gigi secara permanen dan membentuk lubang kecil pada gigi. Pola konsumsi makanan dan minuman sangat berpengaruh terhadap tingkat keasaman saliva. *Soft drink* mengandung karbon dioksida (CO_2) dan berbagai jenis asam yang dapat menurunkan derajat keasaman (pH) cairan dalam rongga mulut. Stroberi *(Fragaria x annanassa)* buah yang memiliki kandungan bahan-bahan aktif seperti *salicylic acid, ellagic acid,* katekin dan vitamin C dalam jumlah yang tinggi. Tujuan penelitian ini adalah untuk mengetahui pengaruh minuman *soft drink* rasa stroberi dibandingkan dengan jus segar stroberi terhadap derajat keasaman (pH) saliva tiruan.

Minuman *soft drink* rasa stroberi dan jus segar stroberi sebagai kelompok perlakuan sedangkan akuades steril sebagai kelompok kontrol. Masing-masing sampel sebanyak 2,5 ml dicampurkan dengan 2,5 ml suspensi bakteri *S. mutans* konsentrasi $1{,}5x10^8$ CFU/ml dan saliva tiruan sebanyak 2,5 ml. Dilakukan pengukuran pH saliva pada menit ke-0, dan sesudah 5 serta 10 menit , selanjutnya data dianalisis menggunakan uji statistik pada $p<0{,}05$.

Hasil uji ANOVA menunjukkan bahwa terdapat perbedaan yang bermakna nilai pH antar semua kelompok minuman *soft drink* rasa stroberi dan jus segar stroberi serta minuman akuades steril. Hasil uji *Post Hoc Bonferroni* menunjukkan terjadi peningkatan pH saliva tiruan secara bermakna seiring waktu pengukuran pada seluruh kelompok. Disimpulkan bahwa minuman *soft drink* rasa stroberi dan jus segar stroberi bermakna menurunkan pH saliva tiruan baik sebelum maupun sesudah 5 dan 10 menit. Derajat keasaman saliva tiruan setelah terpapar *soft drink* rasa stroberi lebih rendah dibandingkan dengan pH jus segar stroberi dan setelah 10 menit yang tergolong kategori asam.

Kata Kunci : Buah Stroberi, Jus Segar Stroberi, *Soft Drink* Rasa Stroberi, Derajat Keasaman (pH), Saliva Tiruan.

ABSTRACT

Dental caries is a disease that permanently damages the lining of the teeth and forms small holes in the teeth. The pattern of food and beverage consumption greatly affects the acidity of saliva. Soft drinks contain carbon dioxide (CO_2) and various types of acids that can reduce the degree of acidity (pH) of fluids in the oral cavity. Strawberry *(Fragaria x annanassa)* fruit that contains active ingredients such as salicylic acid, ellagic acid, catechins, anthocyanins and vitamin C in high amounts. The purpose of this study was to determine the effect soft drink compared to fresh strawberry juice on the acidity (pH) of artificial saliva.

Strawberry soft drinks and fresh strawberry juice were the treatment group, while sterile distilled water was the control group, each with 3 samples. Each sample of 2.5 ml was mixed with 2.5 ml of *S. mutans* concentration of $1.5x10^8$ CFU/ml and 2.5 ml of artificial saliva. Salivary pH was measured at minute 0, and after 5 and 10 minutes, then the data were analyzed using statistical tests at $p<0.05$.

The results of the ANOVA test showed that there was a significant difference in the pH value between all groups of soft drink drinks with strawberry flavor and fresh strawberry juice and sterile distilled water. The results of the Bonferroni Post Hoc test showed that there was a significant increase in artificial saliva pH over time in all groups. It was concluded that soft drink and fresh strawberry juice significantly reduced the pH of artificial saliva both before and after 5 and 10 minutes. The degree of acidity of artificial saliva after exposure to soft drink was lower than the pH of fresh strawberry juice and after 10 minutes which was classified as acidic.

Keywords: Strawberry Fruit, Fresh Strawberry Juice, Strawberry Flavor Soft Drink, Degree of Acidity (pH), Artificial Saliva.