

INTISARI

Saliva merupakan cairan eksokrin yang dikeluarkan ke dalam rongga mulut melalui kelenjar saliva. Perubahan derajat keasaman (pH) saliva dalam keadaan rendah dapat mengakibatkan rongga mulut menjadi asam sehingga memudahkan terjadinya proses demineralisasi. Nanas (*Ananas comosus*) mengandung air, protein, lemak, karbohidrat, serat, klor, iodium, fenol, vitamin A dan C, fosfor, magnesium, besi, natrium, dan kalium. Kandungan buah nanas sangat penting dalam membantu fungsi saliva yaitu menghambat pertumbuhan bakteri dan membersihkan rongga mulut. Penelitian ini bertujuan untuk mengetahui efek jus buah nanas (*Ananas comosus*) segar dibandingkan kemasan terhadap derajat keasaman (pH) saliva buatan *in vitro*.

Jenis penelitian yang dilakukan adalah penelitian *True Eksperimental Design* yaitu *Posttest Control Group Design*. Pada pH saliva buatan awal sebelum perlakuan saliva buatan telah diukur derajat keasamannya yang menunjukkan 6,8. Dalam penelitian ini terdapat tiga kelompok perlakuan yaitu kelompok jus buah nanas segar, kelompok jus buah nanas kemasan) dan kelompok kontrol negatif menggunakan akuades dalam saliva buatan. Jumlah sampel pada penelitian ini 36 sampel. Saliva buatan 20 ml dicampurkan dengan 20 ml kelompok perlakuan yaitu kelompok jus nanas segar, kelompok jus nanas kemasan dan akuades. Pengukuran pH saliva dilakukan dua kali pada 5 menit dan 15 menit setelah perlakuan. Hasilnya dianalisis secara statistik pada kebermaknaan ($p < 0.05$).

Hasil penelitian menunjukkan bahwa jus buah nanas segar dan kemasan bermakna berpengaruh menurunkan nilai derajat keasaman (pH) saliva buatan. Pada menit ke-15, pH jus buah nanas segar bermakna sama dengan jus kemasan. Kesimpulan penelitian menunjukkan pada menit ke-15, pH saliva buatan yang diberi jus buah nanas segar bermakna sama dengan yang diberi jus kemasan. Jus nanas kemasan menit ke-5, bermakna lebih menurunkan nilai derajat keasaman (pH) saliva buatan. Dengan demikian Jus nanas segar lebih baik daripada jus nanas kemasan.

Kata kunci : Jus nanas segar, jus nanas kemasan, saliva buatan, derajat keasaman (pH)

ABSTRACT

*Saliva is an exocrine fluid that is released into the oral cavity through the salivary glands. Changes in the degree of acidity (pH) of saliva in a low state can cause the oral cavity to become acidic, thereby facilitating the demineralization process. Pineapple (*Ananas comosus*) contains water, protein, fat, carbohydrates, fiber, chlorine, iodine, phenol, vitamins A and C, phosphorus, magnesium, iron, sodium, and potassium. The content of pineapple is very important in helping saliva function, namely inhibiting bacterial growth and cleaning the oral cavity. This aim of the study was to determine the effect of fresh pineapple juice (*Ananas comosus*) compared to packaged pineapple juice on the acidity (pH) of artificial saliva in vitro.*

This type of research is a True Experimental Design research, namely Posttest Control Group Design. The pH of the initial artificial saliva before artificial saliva treatment has been measured the degree of acidity which showed 6,8. In this study, there were three treatment groups: fresh pineapple juice group, packaged pineapple juice group) and a negative control group using distilled water in artificial saliva. The number of samples in this study were 36 samples. Twenty ml of artificial saliva was mixed with 20 ml of the treatment group, namely fresh pineapple juice group, packaged pineapple juice group and distilled water. Salivary pH measurements were carried out twice at 5 minutes and 15 minutes after treatment. The results were statistically analyzed for significance ($p < 0.05$).

The results showed that fresh and packaged pineapple juice significantly decreased the acidity (pH) value of the artificial saliva. At the 15 minute, the pH of fresh pineapple juice has the same meaning as packaged juice. The conclusion of the study showed that at the 15 minute, the pH of the artificial saliva given fresh pineapple juice was the same as that given the packaged juice. The 5 minute of packaged pineapple juice, significantly reduces the acidity (pH) value of the artificial saliva. Thus fresh pineapple juice is better than packaged pineapple juice.

Key words: Fresh pineapple juice, packaged pineapple juice, artificial saliva, degree of acidity (pH)