

DIFFERENCES IN EFFECTIVENESS OF CHEWING ROSE APPLES WITH PAPAYAS ON THE INCREASE OF SALIVA ACIDITY (pH) ON ELECTRONIC CIGARETTE SMOKERS

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ABSTRACT

Background: Electric cigarette causes the saliva pH in the oral cavity to become acidic. The degree of acidity is influenced by the stimulation of salivary secretions which is influenced by mechanical stimuli such as chewing guava, papaya. Preliminary studies show 73.3% of electric smokers have an acidic pH.

Objective: To know the difference between the effectiveness of chewing rose apples and papayas on the saliva pH rise of electronic cigarette smokers.

Research Methods: *Quasi-experimental* research with a *Non Equivalent Control Group*. The study was conducted at Banderaz Vape Squad, March 2020. Sampling technique was *Purpose Sampling*, with 70 respondents . Variable effect of chewing rose apples, papaya variable affected by salivar pH. The research instrument was a saliva pH assessment format. Data analysis uses *Paired T-Test* and *Independent T-Test*.

Results: Salivary pH before and after chewing guava was 6.189 ± 0.3141 and 6.857 ± 0.2638 , while papaya was 6.057 ± 0.2500 and 6.663 ± 0.1987 . Difference means increase in pH of saliva chewing guava 0.668, chewing papaya 0.606. *Paired Sample T-Test* showed that both guava, papaya could increase salivary pH ($P = 0.000$). *Independent Sample t-Test* showed no significant difference between two types of fruit on the increase in salivary pH ($P = 0.328$)

Conclusion: There wasn't difference the effectiveness of chewing rose apples, papaya on increase in saliva pH of electric smokers. Rose apples, papaya are both effective in increasing salivary pH. In addition, consumption of rose apples has more effect on increasing saliva pH than papaya consumption.

Keywords: Rose Apples, Papayas, Salivary pH, Electric Cigarette Smokers

**PERBEDAAN EFEKTIVITAS MENGUNYAH BUAH JAMBU AIR DENGAN
PEPAYA TERHADAP PENINGKATAN DERAJAT KEASAMAN (pH)
SALIVA PADA PEROKOK ELEKTRIK**

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ABSTRAK

Latar Belakang: Rokok elektrik mengakibatkan pH saliva pada rongga mulut menjadi asam. Derajat keasaman dipengaruhi oleh stimulasi sekresi saliva yang dipengaruhi oleh rangsangan mekanis seperti mengunyah buah jambu air dan pepaya. Studi pendahuluan menunjukkan 73,3% perokok elektrik memiliki pH asam.

Tujuan: Mengetahui perbedaan efektivitas mengunyah buah jambu air dengan papaya terhadap peningkatan pH saliva perokok elektrik.

Metode Penelitian: Jenis penelitian *Quasi experimental* rancangan *Non Equivalent Control Group*. Penelitian dilakukan di Banderaz Vape Squad, Maret 2020. Teknik pengambilan sampel *Purposive Sampling*, jumlah responden 70. Variabel pengaruh mengunyah buah jambu air dan pepaya, variable terpengaruh pH saliva. Instrumen penelitian format penilaian pH saliva. Analisis data menggunakan Uji *Paired T-Test* dan Uji *Independent T-Test*.

Hasil Penelitian: Rerata nilai pH saliva sebelum dan sesudah mengunyah jambu air 6.189 ± 0.3141 dan 6.857 ± 0.2638 , sedangkan papaya 6.057 ± 0.2500 dan 6.663 ± 0.1987 . Selisih rerata peningkatan pH saliva mengunyah jambu air 0.668, mengunyah pepaya 0.606. Uji *paired sample t-test* menunjukkan buah jambu air maupun papaya keduanya dapat meningkatkan pH saliva ($P=0.000$). Uji *Independen Sample t-Test* menunjukkan tidak terdapat perbedaan yang signifikan pengaruh antara kedua jenis buah terhadap peningkatan pH saliva ($P=0,328$)

Kesimpulan: Tidak ada perbedaan efektivitas mengunyah buah jambu air dengan buah papaya terhadap peningkatan pH saliva perokok elektrik. Baik buah jambu air maupun papaya keduanya sama-sama efektif meningkatkan pH saliva. Selain itu, konsumsi jambu air lebih berpengaruh terhadap peningkatan pH saliva dibandingkan konsumsi papaya

Kata Kunci : Buah Jambu Air, Buah Pepaya, pH Saliva, Perokok Elektrik