

## **ABSTRACT**

*The most oral health problems are caries and periodontal diseases that caused by plaque. Plaque can be prevented by epicatechin compounds in star fruit (Averrhoa carambola L.). Epicatechin as anticaries because it is bactericidal. This study is to know the influences of star fruit juice rinse towards the changes of plaque pH and saliva pH.*

*This study used quasy experiment with pre-post test control group design. Total samples were 60 female children aged 12-15 years and divided into 5 groups. The test group rinsed star fruit juice 50%, 75%, 100%. The control group rinsed povidone iodine 1%, and distilled water. Data analysis used Kruskal-Wallis with value of  $p < 0,05$  and was followed by Mann-Whitney test. Paired T-Test and Wilcoxon test with value of  $p < 0,05$  to determine the difference of plaque pH and saliva pH changed before and after rinsed.*

*The results of Kruskal-Wallis test were the value of  $p 0,000$  in plaque pH and the value of  $p 0,145$  in saliva pH. The results of Paired T-Test in saliva pH changed of juice 75% was  $p 0,083$  and the value of juice 100% was  $p 0,026$ . The results of Wilcoxon test in changed of plaque pH of juice 50% was  $p 0,000$ , the value of juice 75% was  $p 0,003$ , and the values of juice 100% was  $0,290$ . The difference in saliva pH changed in juice 50% was  $p 0,478$ .*

*This study showed that star fruit juice 50% and 75% increased plaque pH and star fruit 100% decreased saliva pH.*

**Key Words :**

*Children, Plaque pH, Saliva pH, Star fruit*