JUALAH BAKTERI CAMPUR PADA SALIVA ANAK SETELAH BERKUMUR DENGAN LARUTAN MADU 5% DAN OBAT KUMUR NON ALKOHOL CETYLPIRIDINIUM Klorida

MIXED BACTERIAL COUNTING IN CHILDREN'S SALIVA AFTER RINSING WITH 5% HONEY SOLUTION AND NON ALCOHOLIC MOUTHWASH CETYLPIRIDINIUM CHLORIDE

ABSTRACT

Introduction: Many organisms present in the oral cavity may contribute to a variety of diseases. It has been demonstrated that use of honey solution and non alcohol Cetylpiridinium chloride mouthwash could decrease the oral bacteria in the oral cavity. Honey has a glucose oxidase enzyme which produces hydrogen peroxide which will play a major role in killing bacteria and also has a flavonoid that will increase the osmotic pressure and lyse the cell walls of bacteria so that the bacteria will die. Cetylpiridinium chloride is an agent that can inhibit plaque formation and as an antibacterial (antimicrobial). Objective: To study the difference in the counting of mixed bacterial in saliva of children after rinsing with 5% honey solution and with non-alcoholic mouthwash 0.1% Cetylpiridinium chloride. Material and Method: The samples (27 participants) are divided into 3 groups. One hour after tooth brushing, children are asked to collect 2 ml saliva in a sterile tube and directly incubated for 24 hours. The mixed bacteria in the saliva are assessed by using spectrophotometer. After collecting the saliva, the first group (9 children) are instructed to rinse with 15 ml mineral water (aqua), the second group (9 children) are instructed to rinse with 15 ml 5% honey solution, and the third group (9 children) are instructed to rinse with 15 ml non-alcoholic mouthwash Cetylpiridinium chloride. All of groups are instructed to rinse for 30 seconds, 3 days, 1 hour after brushing every morning and night. After that, 2 ml of the saliva are collected for every participants and directly incubated for 24 hours. Mixed bacteria in the saliva are assessed by using spectrophotometer. The spectrophotometer assessment is done twice before and after rinsing. The significance of the difference of mean between 3 groups are statistically analyzed by one way Anova. Result: The mean of mixed bacteria in the saliva before rinsing with 5% honey solution is 119755000. The mean of mixed bacteria in the saliva after rinsing with 5% solution honey is 138594566,6. The mean of decreased mixed bacteria in the saliva before and after rinsing with 5% honey solution is 39880000. The mean of mixed bacteria in the saliva before rinsing with non-alcoholic mouthwash Cetylpiridinium chloride is 140460000. The mean of mixed bacteria in the saliva after rinsing with non-alcoholic mouthwash Cetylpiridinium chloride is 123803333,3. The mean of decreased mixed bacteria in the saliva before and after rinsing with non-alcoholic mouthwash Cetylpiridinium chloride is 36653333,3. The difference between the two groups are statistically not significant (p=0,659). It means rinsing with 5% honey solution as good as rinsing with non-alcoholic mouthwash 0,1% Cetylpiridinium chloride. Conclusion: 5% honey solution can be use as mouthwash for children.