THE EFFECTIVENESS OF SOAKING ACRYLIC BASE MADE OF ALOE VERA EXTRACT ON ORAL MICROORGANISMS

(Laboratory Experimental Analysis)

ABSTRACT

Background *: Denture base overlooking mucosa is a part that is not polished, so this condition can facilitate the buildup of plaque. Plaque is a good medium for the growth of oral microorganisms. As a result, it can cause some kinds of disruption in the oral cavity,. To prevent the colonization of oral microorganisms, the denture must be soaked in denture cleanser. In this case, the denture cleanser is made of aloe vera extract containing antimicrobial compounds.*

Purpose *: To determine the effects of aloe vera extract on the number of colonies of oral microorganisms on acrylic base.*

Materials and Method: *28 heat-cured polymerized acrylic bases were made with size (10x10x1.5) mm. The acrylic bases were soaked in an oral microorganism suspension and incubated at 37°C for 24 hours. And the acrylic bases were soaked for 15 minutes into 4 groups. Group 1 as a control group was soaked in distilled water. Group 2 was soaked in 100 % aloe vera extract. Group 3 was soaked in 85% aloe vera extract. And, Group 4 was soaked in 70% aloe vera extract. After that, each group was diluted and planted in muller hinton media to make colonies of oral microorganisms grow. Finally, those grown colonies were measured by using a colony counter.*

Result: *there was no significant difference among control group, 100% aloe vera extract, 85% aloe vera extract and 70% aloe vera extract.*

Conclusion: *Aloe vera extract is able to decrease the number of colonies of oral microorganisms, although in statistical analysis there was no significant difference among groups.*

Keywords: *Aloe vera extract, oral microorganisms, the number of colonies*