ABSTRACT

Background: Utilization of natural products are very popular in the community lately as a natural substance that is considered more secure, inexpensive, and easy to obtain than chemical. one of which is to use strawberries as an alternative bleaching materials. Purpose: to determine the optimal time of strawberry paste application as bleaching material that has not lowered the enamel surface hardness. Method: Six groups of samples i.e. group 1: observation post-extracted incisive teeth before discoloration, group 2: observation post-extracted incisive teeth after discoloration, group 3: observation decolorized post-extracted incisive teeth soaked in 100% strawberry paste for 2 weeks, group 4: observation decolorized post-extracted incisive teeth soaked in 100% strawberry paste for 3 weeks, group 5: observation decolorized post-extracted incisive teeth soaked in 100% strawberry paste for 4 weeks, group 6: observation decolorized post-extracted incisive teeth soaked in 100% strawberry paste for 5 weeks. The microhardness of each sample group is tested before and after the application. Color change measurement was done using a Vita marked Shade Guide measuring equipment. Result: There was a significant difference in color and enamel microhardness of the samples after being soaked in 100% strawberry paste. Conclusion: Enamel surface hardness decreased after being soaked in 100% strawberry paste for 2 weeks. The cochange of the enamel occurred after the application of 100% strawberry paste for 3 weeks. Effective time to use strawberries as a bleaching paste is 2 weeks.

Keyword: strawberry, microhardness, color change