EFektivitas Ekstrak Kulit Manggis (Garcinia mangostana L.) Sebagai Bahan Pembersih Kavitas Gigi

THE EFFECTIVITY OF MANGOSTEEN PERICARP EXTRACT (Garcinia mangostana L.) AS TOOTH CAVITY CLEANSER

ABSTRACT

Background. The important factor in determining the success of restoration is the adhesive bond between teeth and restoration materials. Adhesive bond can not be obtained because of the debris which consist of microorganism, inorganic and organic materials that formed during instrumentation process. Therefore, debris must be removed by using cavity cleanser. Nowadays, there are many cavity cleansers but they have side effects. Therefore, it is necessary to develop ingredients derived from nature that mangosteen pericarp extract. Mangosteen pericarp extract consist of saponin, xanthone, tannin, and flavonoid that can removed debris from cavity surface, but until now have not known the effective concentration of mangosteen pericarp extract as cavity cleanser. Purpose. The purpose of this study is to determine the most effective concentration of mangosteen pericarp extract as cavity cleanser. Method. Twenty four premolar maxillary human teeth were randomized into four groups, each group consisting of 6 teeth. Teeths were cut horizontally on CEJ with disk bur and then, preparation cavity on occlusal side with wheel diamond bur as deep as 1.5 mm. After preparation, mangosteen pericarp extract concentration 400 µg/ml, 500 µg/ml, 600 µg/ml were applied on cavity surface in 10 seconds while the control group were not applied. The result of cavity cleanliness was observed by using scanning electron microscope. Result. There is a significant difference between each groups (p<0.05). Conclusion. Mangosteen pericarp extract (Garcinia mangostana L.) with a concentration of 600 µg/ml effective as cavity cleanser.

Key words: Mangosteen pericarp extract (Garcinia mangostana L.), cavity cleanser, debris.