

**THE CLEANSING EFFECTIVITY DIFFERENCE BETWEEN  
MANGOSTEEN PEEL EXTRACT (*Garcinia mangostana L.*) AND 17%  
POLYACRYLIC ACID**

**PERBEDAAN DAYA PEMBERSIH KAVITAS EKSTRAK KULIT  
MANGGIS (*Garcinia mangostana L.*) DAN ASAM POLIAKRILAT 17%**

**ABSTRACT**

**Background.** Debris is a layer consisting of residual organic and inorganic particles such as necrotic tissue and microorganisms, which are attached to surface of cavity after dental instrumentation. Debris can reduce the adhesion of restorative material and place for microorganisms colonies, therefore the use of cavity cleanser to remove debris is an important procedure that affects the restoration function and success. Cavity cleanser that have been used today still has deficiencies in cleaning up debris. Mangosteen peel extract contain saponins, which have the nature of surfactant that can dissolve debris. **Purpose.** To prove that mangosteen peel extract is better than 17% polyacrylic acid in cleaning up debris of the cavity surface after preparation. **Method.** Eighteen extracted human premolars were divided into three groups randomly so each group consist of six teeth. The teeth cusps are cut so that the occlusal surface becomes flat. Occlusal surface then prepared to approximately 1.5 mm of depth using wheel diamond bur. After preparation, samples respectively treated with mangosteen peel extract 600 µg/ml, 17% polyacrylic acid and without treated as control group for 15 seconds, then rinsed with 1 ml of aquadest for 10 seconds. The cleanliness level of cavity then observed under scanning electrone microscope. **Results.** There were significant differences ( $p < 0.05$ ) among each group. **Conclusion.** Mangosteen peel extract 600 µg/ml is better than 17% polyacrylic acid in cleaning up debris of the cavity surface.

*Keywords:* Mangosteen peel extract, polyacrylic acid, debris, cavity cleanser, saponin