

Inhibitory effect of some active ingredients of Thai herbs on *Streptococcus mutans*

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The purposes of this study were to determine the inhibitory effect of some active ingredients of Thai herbs on *Streptococcus mutans* growth in biofilm and glucosyltransferase activity. Four active ingredients (0.1 and 0.01 mg/ml), arecoline hydrobromide, curcumin, emodin, epigallocatechin gallate and chlorhexidine digluconate (0.2% v/v) were used in this study. Determination of bacterial growth was measured by counting colony forming unit on Mitis-Salivarius agar. Glucosyltransferase activity was assayed by measuring hydrolysed glucan using Nelson-Somogyi method. The data were analysed by one way ANOVA. It was found that colony counting was reduced significantly ($p < 0.05$) in all active ingredients and chlorhexidine digluconate. Curcumin and epigallocatechin gallate have percent of growth inhibition more than arecoline hydrobromide and emodin. Glucosyltransferase activity was also reduced significantly

($p < 0.05$) in all tested agents. Curcumin and epigallocatechin gallate inhibit enzyme activity more than chlorhexidine digluconate.

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