# INHIBITIONS OF ACTIVITIES AND GROWTH OF *SALIX GRACILISTYLA* AGAINST DENTAL CARIES

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## ABSTRACT

The degree of inhibition of activities and growth on five strains of dental caries were estimated by the leaf extracts of *Salix gracilistyla*. The strains were *Streptococcus mutans, Streptococcus mitis, Streptococcus sobrinus, Lactobacillius acidophilius,* and *Actinomyces* spp. which were the main causal bacteria for dental caries. The extraction solvent was ethanol. Various concentrations of leaf extract were prepared (0 ㎎/㎖, 1.0 ㎎/㎖, 2.0 ㎎/㎖, 4.0 ㎎/㎖, 6.0 ㎎/㎖, 8.0㎎/㎖, 10.0 ㎎/㎖). Among these strains, *S. sobrinus* was most effective inhibited by leaf extract and next followed by *Actinomyces* spp. *S. mitis* strain was most resistant to the extracts followed by *L. acidophilius.* The minimal inhibitory concentration (MIC) values against five strains were varied from 4.0 mg/ml to 8.0 mg/ml against antimicrobial activity. *S. mitis* has high MIC value with 8.0 mg/ml. As the concentration increased the inhibition effect was also increased. *S. mutans, S. sobrinus,* and *Actinomyces* spp. showed a highest inhibition effect growth, whereas *S. mitis* and *L. acidophilius* showed a lesser inhibition effect at 50% level. The findings from this work may add to the overall value of the medicinal potential ethanol extract of leaf extract of *S. gracilistyla*.

**Keywords:** *Salix gracilistyla,* dental caries, *Streptococcus mutans*.