A STUDY OF SOME MEDICINAL PLANTS EFFECTIVE AGAINST ORAL STREPTOCOCCUS SPP.

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In this study, seven medicinal plants were selected for the investigation of antibacterial activity. The extracts of these plants are 1) citronella oil (from the leaves of *Cymbopogon nardus*), 2) aqua rosae (from the flowers of *Rosa* spp.), 3) clove oil (from the young flowers of *Eugenia caryophyllata*), 4) the extract from the bark of *Punica granatum*; 5) the extract from the leaves and stems of *Rhinacanthus nasotus*; 6) the extract from the flowers of *Ochrocarpus siamensis*; 7) the extract from the wood of *Caesalpinia sappan*. These extracts are tested for their inhibitory activity against oral streptococcus spp. of 22 isolates which have been isolated from dental plaque of 25 patients cases. From these 22 isolates, *Streptococcus mutans* cannot be found. All of these seven medicinal plant extracts were also studied for their inhibitory effect against reference strains of *S. mutans* and *S. sanguis* II. This study was carried out by the agar dilution method.

It was found that all of the extracts could inhibit the growth of all isolates of oral streptococcus spp. and reference strains. The MIC of each extract was determined and it was shown that the MIC were as follows: The extract from flowers of *Ochrocarpus siamensis* was 1.5 mg/ml the same as the extract from wood of *Caesalpinia sappan*.

The MIC of the extract of *Rhinacanthus nasotus* was 3.8 mg/ml; and of clove oil was 5.9 mg/ml but the MIC of citronella oil was 23.8 mg/ml and of the extract from the bark of *Punica granatum* was 32.2 mg/ml. The lowest inhibitory activity against oral streptococcus spp. was aqua rosae which the MIC has determined as 47.5 mg/ml.

From this study, it was illustrated that all of these medicinal plants could markedly inhibit growth of oral streptococcus spp. Thus it probably can be considered useful in medicinal applications.