

Antibacterial Activity of Selected Essential oils against *Streptococcus sobrinus* and *Porphyromonas gingivalis*

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Plant essential oils have been used medicinally in history. The antibacterial screening of selected plant essential oils against *Porphyromonas gingivalis* and *Streptococcus sobrinus* was evaluated by MIC (minimum inhibitory concentration) and MBC (minimum bactericidal concentration) assay. Among them, thujopsis dolabrata (Asunaro) essential oil was selected as a fairly effective sample against *P. gingivalis* (MIC=1 mg/ml) and *S. sobrinus* (MIC=1 mg/ml) respectively. Moreover, *Callitris intratropica* (Australian blue cypress; cypress) was also screened as a fairly effective sample only against *S. sobrinus* (MIC=0.5 mg/ml). Furthermore, five effective compounds, (+)-cuparene, (-)-thujopsene, (+)-cuparenol, (-)-guaiol and a novel sesquiterpenoid were isolated by a performance of a series of chromatography, and identified by nuclear magnetic resonance (NMR) and matrix assisted laser desorption/ionization time of flight mass spectrometry (MALDI-TOFMS). Among them, (+)-cuparenol was the most effective compound with a MIC of 0.125 mg/ml against *P. gingivalis*. Additionally, the novel sesquiterpenoid (MIC=0.25 mg/ml) was identified as the first time isolation from *C. intratropica*.