Ekstrak Cranberry (Vaccinium macrocarpon) dalam Menghambat PERTUMBUHAN BAKTERI PLAK

Cranberry Extract (Vaccinium macrocarpon) to Inhibit Dental Plaque Growth

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ABSTRACT

BACKGROUND: Periodontitis is an inflammation on periodontal structure that caused by microorganisms. The plaque starts from supragingival expands towards subgingival thus causing inflammation in periodontal. Nowadays, herbs acting as antimicrobial agent are often used in the therapy. Cranberry is usually used to treat UTI with prevent bacterial adhesion on mucosa of the urinary tract. Cranberry contains tannins and also NDM which is rich in Proanthocyanidins. AIM: To find the minimum inhibitory concentration of cranberry extract on the growth of dental plaque. METHOD: This experiment was done by using dilution method. The extract was diluted into 8 different concentrations (100%;50%;25%;12.5%;6.25%;3.12%;1.56%;0.78%). Then crosscheck was done to see the growth of dental plaque in Mueller Hinton Agar. The counting was done by using Quebec Colony Counter. The result was recorded and analyzed with One-Way ANOVA. RESULT: The result showed that antimicrobial activity was active at concentration 25% as Minimum Inhibitory Concentration with average total colony is about 34 CFU/ml. Statistical test showed that there were significant differences of total colony from each concentration. CONCLUSION: Cranberry extract (Vaccinium macrocarpon) could inhibit the growth of dental plaque at concentration 25%.

Keywords: Cranberry extract, Dental plaque, Minimum Inhibitory Concentration