Efektivitas paparan propolis flouride terhadap viabilitas biofilm streptococcus mutans dalam berbagai fase = Effectiveness of presented propolis flouride to the viability of streptococcus mutans in various phases

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Abstrak

Latar Belakang: Propolis fluoride salah satu sediaan yang dapat menghambat perkembangan bakteri penyebab karies.
Tujuan: Menganalisis pengaruh propolis fluoride terhadap viabilitas biofilm S. mutans dalam berbagai fase.
Metode: Model biofilm S.mutans di inkubasi selama 4 jam fase adesi, 12 jam fase akumulasi aktif, dan 24 jam fase maturasi, kemudian dipaparkan dengan propolis fluoride 3,3 ; 6,6, 10 kelompok perlakuan, dan SDF 38 kelompok kontrol. Analisis Viabilitas biofilm S.mutans dilakukan dengan uji MTT untuk dibaca pada microplate reader.
Hasil: Pada pemaparan Propolis 3,3, persentase viabilitas biofilm S.mutans pada fase adesi 14,89 3,19; fase akumulasi aktif 24,37 7,43; dan fase maturasi 21,35 3,06. Pada pemaparan Propolis 6,6, persentase viabilitas biofilm S.mutans pada fase adesi 10,10 2,43; fase akumulasi aktif 20,88 13,17; dan fase maturasi 18,82 4,51. Pada pemaparan Propolis 10, persentase viabilitas biofilm S.mutans pada fase adesi8,04 1,59; fase akumulasi aktif 11,17 8,90; dan fase maturasi 16,75 1,83.
Kesimpulan: Propolis fluoride 10 dapat menurunkan viabilitas biofilm S.mutans pada fase adesi.
.....Background: Propolis fluoride in one of dosage could inhibit the growth of bacteria that cause caries.
Objective: To analyze the effect of propolis fluoride on the viability of S. mutans biofilm in various phases.
Method: S. mutans biofilm models were incubated for 4 hours adhesion phase, 12 hours active accumulation phase, and 24 hours maturation phase, then presented with propolis fluoride 3.3 6.6, 10 treatment group, and SDF 38 control group. Analysis of S. mutans biofilm viability is tested by MTT in the microplate reader.
Results: Exposure of Propolis Flouride 3.3, the percentage of S. mutans biofilm viability in the adhesion phase is 14.89 3.19 active accumulation phase is 24.37 7.43 and the maturation phase is 21.35 3.06. On exposure of Propolis Flouride 6.6, the percentage of S. mutans biofilm viability in adhesion phase is 10,10 2,43 active accumulation phase is 20.88 13.17 and the maturation phase is 18.82 4.51. On exposure of Propolis Fluoride 10, the percentage of S. mutans biofilm viability in the phase of adhesion is 8.04 1.59 active accumulation phase is 11.17 8.90 and the phase of maturation is 16.75 1.83.
Conclusion: Propolis fluoride 10 could reduced the viability of S. mutans biofilm in adhesion phase.