Efek antibakteri jus anggur (vitis vinifera) varietas probolinggo biru terhadap streptococcus mutans asal saliva , in vitro

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Abstrak

Latar Belakang : Bakteri patogen Streptococcus mutans merupakan salah satu faktor penyebab karies yang perlu diperhatikan. Jus Anggur (Vitis vinifera) varietas Probolinggo Biru mengandung senyawa fenol, diantaranya flavonoid, tannin, antosianin dan resveratrol. Senyawa fenol memiliki efek antibakteri terhadap Streptococcus mutans asal saliva.
Tujuan : Mengetahui besar efek antibakteri jus Anggur (Vitis vinifera) varietas Probolinggo Biru terhadap Streptococcus mutans asal saliva dengan menghitung besar zona hambatan, Konsentrasi Hambat Minimal (KHM) dan Konsentrasi Bunuh Minimal (KBM).
Metode : Senyawa fenol pada jus anggur diidentifikasi dengan uji fitokimia. Jus anggur dibuat dalam 8 tingkat konsentrasi, 20% hingga 90%. Penelitian ini menggunakan dua macam tes sensitivitas, metode difusi dan metode dilusi. Analisa statistik dilakukan dengan metode deskriptif.
Hasil : Zona hambatan meningkat dari 1.03 mm pada konsentrasi 20% hingga 7.03 mm pada konsentrasi 90%. Konsentrasi Hambat Minimal (KHM) sebesar 40% dan Konsentrasi Bunuh Minimal (KBM) sebesar 50%.
Kesimpulan : Berdasarkan hasil penelitian in vitro yang dilakukan, terbukti bahwa jus Anggur (Vitis vinifera) varietas Probolinggo Biru memiliki efek antibakteri yang potensial terhadap Streptococcus mutans asal saliva.
<hr>Background: The emergence of dental caries bacterial pathogen, Streptococcus mutans, is a significant threat to oral health. Grape (Vitis vinifera) juice variety Blue Probolinggo has active substance named phenolic compounds such as flavonoid, tannin, anthocyanin and resveratrol. Phenolic compounds have antibacterial effect against salivary Streptococcus mutans.
Objectives: The aim of this research is to determine the antibacterial effect of Grape (Vitis vinifera) juice variety Blue Probolinggo by measuring the inhibitory zone, Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) on salivary Streptococcus mutans.
Methods: Phenolic compounds in grape juice were identified by phytochemical test. After divided to eight concentrations, from 20% until 90%, the grape juice was tested against salivary Streptococcus mutans. This research used two kinds of sensitivity test, diffusion and dilution method. Statistical analysis was done in descriptive method.
Result: Inhibitory zone was inclined from 1.03 mm in concentration 20% to 7.03 mm in concentration 90%. Minimum Inhibitory Concentration (MIC) was 40% and Minimum Bactericidal Concentration (MBC) was 50%.
Conclusion: This research shows that Grape (Vitis vinifera) juice variety Blue Probolinggo has potential antibacterial effect against salivary Streptococcus mutans, in vitro.