

DAYA HAMBAT CAMPURAN AIR PERASAN JERUK LEMON

(*Citrus limon* (L.) Burm.F.) DAN MADU RANDU

Terhadap Pertumbuhan *Streptococcus mutans*

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ABSTRAK

Jeruk lemon (*Citrus limon* (L.) Burm.F.) dan Madu Randu mengandung senyawa aktif yang dapat digunakan sebagai antibakteri, dan bersifat reaktif terhadap bakteri penyebab infeksi. *Streptococcus mutans* merupakan penyebab karies gigi patogen paling banyak menyerang manusia. Tujuan penelitian ini untuk mengetahui aktivitas dan konsentrasi optimum campuran air perasan ini jeruk lemon (*Citrus limon* (L.) Burm.F.) dan madu randu dalam menghambat pertumbuhan *Streptococcus mutans*. Jenis penelitian yang digunakan adalah eksperimen semu dengan menggunakan metode difusi cara sumur. Media yang digunakan adalah Muller Hinton Darah yang dilubangi dengan diameter 6 mm setelah diinokulasikan *Streptococcus mutans*. Rasio konsentrasi campuran air perasan jeruk lemon dan madu randu yang digunakan yaitu 10:50, 20:50, 30:50, 40:50, 50:50, 50:10, 50:20, 50:30, dan 50:40. Hasil penelitian menunjukkan bahwa campuran air perasan jeruk lemon dan madu randu efektif dalam menghambat pertumbuhan bakteri *Streptococcus mutans* sehingga bersifat bakteristatik (anti bakteri). Konsentrasi optimum yang dapat menghambat pertumbuhan *Streptococcus mutans* yaitu 50 : 10 dengan rata-rata diameter zona hambat sebesar 16,2 mm.

Kata Kunci : Air perasan jeruk lemon (*Citrus limon* (L.) Burm.F.), madu randu, *Streptococcus mutans*, antibakteri

Jumlah Pustaka : 41

***Antibacterial Activity of a Mixture of Lemon Juice
(Citrus limon (L.) Burm.F.) and Randu Honey
inhibiting the growth of Streptococcus mutans***

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ABSTRACT

Lemon (Citrus limon (L.) Burm.F.) and Randu Honey contain active compounds that can be used as antibacterial, because they are reactive against bacteria that cause infection. Streptococcus mutans is the most common cause of pathogenic caries in human teeth. Therefore, this study aimed to determine the activity and concentration of a mixture of lemon juice and randu honey in inhibiting the growth of S. mutans. The type of research used is a quasi-experimental using the well method of diffusion. The medium used was Muller Hinton Blood with a diameter of 6 mm perforated after S. mutans was inoculated. The concentration ratios of the mixture of lemon juice and honey used were 10:50, 20:50, 30:50, 40:50, 50:50, 50:10, 50:20, 50:30, and 50:40. The results showed that a mixture of lemon juice and randu honey had anti-bacterial activity in inhibiting S. mutans. The optimum concentration that can inhibit the growth of mutans is 50:10 with an average inhibition zone diameter of 16.2 mm. For further research can be done using other pathogenic bacteria.

Keyword : lemon juice, S.pyogenes, flavonoids, citric acid, tannins, antibacterial activity

References : 41