

INTISARI

Daun jeruk purut (*Citrus hystrix*) mengandung alkaloid, flavonoid, tanin, dan minyak atsiri yang mampu menghambat pertumbuhan *Streptococcus mutans* yaitu bakteri penyebab karies gigi. Penelitian ini dilakukan untuk mengetahui formulasi pasta gigi ekstrak daun jeruk purut serta mengetahui efektivitasnya terhadap *Streptococcus mutans*.

Pasta gigi ekstrak daun jeruk purut (*Citrus hystrix*) dibuat dengan merujuk pada rancangan formula yang telah dioptimasi oleh Sari (2014) dan diuji kualitasnya meliputi uji homogenitas, uji organoleptik, dan uji pH. Pasta gigi daun jeruk purut konsentrasi 5%, 15%, 25%, tanpa ekstrak serta kontrol positif (Pepsodent®) diuji menggunakan metode difusi pada media TSA. Daya antibakteri dievaluasi diameter zona hambat. Data evaluasi kualitas pasta gigi dianalisis secara deskriptif. Data diameter zona hambat dianalisis menggunakan uji *One-way* ANOVA dan dilanjutkan dengan uji *Tukey*.

Rata-rata diameter zona hambat pasta gigi ekstrak daun jeruk purut (*Citrus hystrix*) 5%, 15%, 25%, tanpa ekstrak dan kontrol positif (Pepsodent®) secara berturut-turut adalah 2,06; 2,96; 3,83; 0 dan 12,50 mm. Berdasarkan hasil evaluasi kualitasnya, pasta gigi ekstrak daun jeruk purut konsentrasi 25% adalah pasta gigi dengan kualitas optimal. Pasta gigi ekstrak daun jeruk purut (*Citrus hystrix*) dengan konsentrasi 5%, 15% dan 25% dapat menghambat pertumbuhan bakteri *Streptococcus mutans* tetapi kurang efektif jika dibandingkan dengan kontrol positif (Pepsodent®).

Kata kunci: *Streptococcus mutans*, pasta gigi ekstrak daun jeruk purut.

ABSTRACT

Lime leaves (*Citrus hystrix*) contains alkaloids, flavonoids, tannins, and essential oils that can inhibit the growth *Streptococcus mutans* which bacteria that be cause of caries dentis. The study was conducted to know the formulation of extract of lime leaves (*Citrus hystrix*) and to know the effectiveness of toothpaste extract of lime leaves (*Citrus hystrix*) against *Streptococcus mutans*.

Toothpaste extract of lime leaves (*Citrus hystrix*) was made refers to the draft formula by Sari (2014), it tested of quality use homogeneity test, organoleptic test, and pH test. Toothpaste extract of lime leaves (*Citrus hystrix*) 5%, 15%, 25%, without the extract and control positive (Pepsodent®) in test using diffusion method using TSA. The antibacterial power calculation using measurements of the zone of inhibition. The data of quality evaluation of toothpaste was analyzing with descriptive. The data were analyzed using *One-way* ANOVA test and continued with the *Tukey* test.

The average diameter of the inhibitory zones toothpaste extract of lime leaves concentrations of 5%, 15%, 25%, without extract and control positive (Pepsodent®) in row are 2,06; 2,96; 3,83; 0 and 12,50 mm. Toothpaste extract of lime leaves concentrations of 25% is better based quality evaluation test. Toothpaste extract of lime leaves (*Citrus hystrix*) with concentrations of 5%, 15% and 25% can inhibit the growth of *Streptococcus mutans* bacteria but it not as effective when compare of the control positive (Pepsodent®).

Keywords: *Streptococcus mutans*, toothpaste extract of lime leaves.