

ABSTRAK

Karies gigi adalah penyakit yang disebabkan bakteri *Streptococcus Mutans* (*agent*), gigi (*host*), makanan (*diet*) dan waktu (*time*) yang saling berinteraksi. Daun pandan wangi memiliki sifat antibakteri karena mengandung flavonoid, alkaloid, saponin dan polifenol yang berperan dalam menghambat pertumbuhan bakteri *Streptococcus Mutans*. Penelitian ini bertujuan untuk mengetahui daya hambat air rebusan daun pandan wangi dalam menghambat *Streptococcus Mutans*.

Penelitian dilakukan secara *Laboratories Experimental with Post test only control group design*. Sampel dibagi 6 kelompok, yaitu kelompok aquades, kelompok air rebusan daun pandan wangi konsentrasi 10%, 25%, 50%, 100% dan *chlorhexidine* 0,2%. Pengulangan dilakukan 4 kali dari setiap kelompok kemudian diinkubasi selama 48 jam pada suhu 37°C.

Data hasil penelitian dilakukan uji normalitas dan homogenitas, kemudian dilanjutkan dengan uji Kruskal Wallis, hasilnya terdapat perbedaan daya hambat yang signifikan antara aquades, konsentrasi 10%, 25%, 50%, 100% dan *chlorhexidine* 0,2% terhadap pertumbuhan *Streptococcus Mutans*. Uji Mann Whitney menunjukkan perbedaan yang signifikan kecuali antara kelompok aquades dengan konsentrasi 10%, aquades dengan konsentrasi 25%, konsentrasi 10% dengan konsentrasi 25% dengan nilai $p = 1,000$.

Hasil penelitian menunjukkan bahwa terdapat kemampuan daya hambat pada air rebusan daun pandan wangi konsentrasi 50% dan 100% dalam menghambat bakteri *Streptococcus Mutans*.

Kata kunci: Air rebusan daun pandan wangi, *Streptococcus Mutans*, Daya hambat

ABSTRACT

Dental caries is disease caused by Streptococcus Mutans bacteria (agent), teeth (host), diet and time that interaction each other. Pandan wangi has antibacterial properties because containing flavonoids, alkaloids, saponins and polyphenols which is inhibiting Streptococcus Mutans. The aims of this research is to determine the inhibition of air rebusan pandan wangi was inhibiting the growth of Streptococcus Mutans.

The research is Laboratories Experimental with Post test control group design. Sample was divided into six groups, there was aquadest, 10%, 25%, 50%, 100% concentration of pandan wangi leaves boiling water, and chlorhexidine 0,2%. Replication was done four times every groups, next step was incubating for 48 hours at 37°C.

The results of research were testing for normality and homogeneity, then Kruskal Wallis test. The results showed a significant difference in inhibitory power between distilled water, concentrations of 10%, 25%, 50%, 100% and chlorhexidine 0.2% for the growth of Streptococcus Mutans. In the Mann Whitney test showed a significant difference except between the aquadest with a concentration 10%, aquadest with a concentration 25%, a concentration 10% with concentration 25% which is value of $p = 1,000$.

The conclusions are there was a inhibitory power in pandan wangi leaves boiling water concentrations 50% and 100% for inhibiting the Streptococcus Mutans bacteria.

Keyword: pandan wangi leaves boiling water, Streptococcus Mutans, power of inhibitory.