INTISARI

Fauziyah, S. 2021. ***Uji Aktivitas Antibakteri Pasta Gigi Herbal Kombinasi Dari Cangkang Telur Ayam Dan Kayu Siwak (Salvadora Persica) Terhadap Streptococcus mutans.*** **Program Studi D4 Analis Kesehatan, Fakultas Ilmu Kesehatan, Universitas Setia Budi Surakarta.**

Karies gigi adalah penyakit gigi yang progresif. Penyakit ini dapat disebabkan oleh banyak faktor dimulai dengan pergeseran mikrobiologis pada plak gigi. Biofilm oral ini penting dalam penyebab karies gigi. Penyebab paling banyak pada karies gigi adalah bakteri *Streptococcus mutans*. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri pasta gigi herbal berbahan dasar kayu siwak (*Salvadora persica)* dan cangkang telur terhadap *Streptococcus mutans* kultur murni dan mengetahui daya hambat bakteri tersebut.

Cangkang telur dan kayu siwak dibuat serbuk digunakan untuk pembuatan pasta gigi herbal non detergen. Pasta gigi herbal ini dilakukan penelitian zona hambat pada media NA. Zona hambat pasta gigi herbal terhadap *Streptococcus mutans* diperoleh melalui metode difusi sumuran. Kontrol positif yang digunakan adalah pasta gigi komersial. Data yang diperoleh dapat dianalisis menggunakan analisis uji deskriptif statistik.

Hasil uji antibakteri menunjukkan aktivitas antibakteri pasta gigi herbal kombinasi cangkang telur dan kayu siwak terhadap *Streptococcus mutans*. Formula pasta gigi yang paling efektif sebagai antibakteri terhadap bakteri uji yakni F1 dengan kombinasi kayu siwak dan cangkang telur yang menghasilkan diameter daya hambat untuk *Streptococcus mutans* sebesar 0,9 mm. Hasil penelitian menunjukkan adanya zona hambat lemah pertumbuhan bakteri *Streptococcus mutans* yang diukur oleh penggaris pada zona bening.

Kata kunci : karies gigi, kayu siwak, cangkang telur, difusi sumuran, *Streptococcus mutans.*

ABSTRACT

Fauziyah, S. 2021. *Test Of Herbal Post Dental Antibacterial Activity Combination Of Chicken Egg Shells And Siwak (Salvadora Persica) Against Streptococcus mutans.* Bachelor's degree Program in Medical Laboratory Technology, Health Sciences Faculty. Setia Budi University.

Dental caries is a progressive dental disease. This disease can be caused by many factors starting with a microbiological shift in dental plaque. This oral biofilm is important in the cause of dental caries. The most common cause of dental caries is *Streptococcus mutans* bacteria. This study aims to determine the antibacterial activity of herbal toothpaste made from siwak wood (*Salvadora persica*) and eggshells against pure culture *Streptococcus mutans* and to determine the inhibition of bacteria.

Egg shells and siwak wood are made into powder which is used to make non-detergent herbal toothpaste. This herbal toothpaste was investigated for inhibition zones on NA media. Inhibition zone of herbal toothpaste against *Streptococcus mutans* was obtained by well diffusion method. The positive control used was commercial toothpaste. The data obtained were analyzed using statistical descriptive test analysis.

The results of the antibacterial test showed the antibacterial activity of a combination of eggshell and siwak wood herbal toothpaste against *Streptococcus mutans*. The formula for toothpaste that was effective as an antibacterial against the test bacteria was F1 with a combination of siwak wood and egg shell which produced an inhibitory diameter of 0.9 mm for *Streptococcus mutans*. The results showed that there was a weak inhibition zone for the growth of *Streptococcus mutans* bacteria as measured by a ruler in the clear zone.

Keywords: dental caries, miswak wood, egg shells, weell diffusion, *Streptococcus mutans*.