INTISARI

MILLA O, 2020, POTENSI AKTIVITAS ANTIBAKTERI BEBERAPA PASTA GIGI TERHADAP BAKTERI *Streptococcus mutans*, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA

Penggunaan pasta gigi merupakan salah satu komponen penting dalam menyikat gigi karena dapat membantu membersihkan plak yang menempel pada permukaan gigi. Penyakit gigi dan mulut yang sering dijumpai adalah karies gigi. Sumber terjadinya karies adalah terabaikannya kebersihan gigi dan mulut, sehingga terjadi akumulasi plak. Bakteri *Streptococcus mutans*, merupakan mikroorganisme penyebab utama dalam proses terjadinya karies. Penelitian ini bertujuan untuk melihat potensi dan membandingkan aktivitas antibakteri pasta gigi herbal dan non-herbal terhadap pertumbuhan *Streptococcus mutans.*

Penelitian ini diawali dengan pembuatan bakteri uji, identifikasi bakteri dengan cara uji morfologi, uji biokimia, pewarnaan gram dan uji aktivitas antibakteri. Terbentuknya zona bening di sekitar bakteri menunjukkan adanya penghambatan pertumbuhan bakteri uji. Penelitian ini menggunakan metode difusi dan menambahkan data sekunder atau *review* jurnal untuk memperkuat hasil penelitian.

Ketiga pasta gigi memiliki kemampuan antibakteri dengan zona hambat pasta gigi sampel siwak 12 mm, flouride 11 mm, daun teh dan daun sirih 15 mm. Diperoleh kesimpulan bahwa masing-masing pasta gigi memiliki aktivitas daya hambat pada bakteri *Streptococcus mutans* dan pasta gigi herbal memiliki aktivitas antibakteri lebih baik dari pada pasta gigi non-herbal.

Kata kunci : daya hambat, *Streptococcus mutans,* pasta gigi

ABSTRACT

MILLA O, 2020, THE POTENTIAL OF ANTIBACTERIAL ACTIVITIES OF SOME TOOTHPASTE AGAINST *Streptococcus mutans* BACTERIA, FACULTY OF PHARMACY, UNIVERSITY OF SETIA BUDI, SURAKARTA

The use of toothpaste was an essential component in brushing teeth because it could help cleaning plaque sticking to the tooth surface. Tooth and mouth disease that was often encountered was dental caries. The source of caries was a neglect of dental and oral hygiene, which caused plaque accumulation. *Streptococcus mutans* bacteria were the primary microorganisms causing caries. This study aimed to examine the potential and to compare the antibacterial activities of herbal and non-herbal toothpaste against the growth of *Streptococcus mutans*.

This study began with the manufacture of test bacteria, identification of bacteria using morphological tests, biochemical tests, gram staining, and antibacterial activity tests. The formation of a clear zone around the bacteria indicated an inhibition of the growth of the tested bacteria. This research used the diffusion method and added secondary data or journal reviews to strengthen the research results.

The three kinds of toothpaste had the antibacterial ability with inhibition zone samples of siwak toothpaste of 12 mm, fluoride of 11 mm, tea leaves and betel leaf of 15 mm. It concluded that each toothpaste had inhibitory activity against *Streptococcus mutans* bacteria and herbal toothpaste had better antibacterial activity compared to non-herbal toothpaste.

Keywords: inhibition, *Streptococcus mutans,* toothpaste