

Efek antimikroba infusum daun binahong (*Anredera cordifolia* (Ten.) Steenis) terhadap bakteri *Streptococcus mutans* : uji KHM dan KBM = Antibacterial effect of binahong (*Anredera cordifolia* (Ten.) Steenis) leaves infusion against the growth of *streptococcus mutans* MIC and MBC determination

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Abstrak

Salah satu penyakit infeksi mulut dengan prevalensi tinggi di Indonesia adalah karies gigi. Hasil SKRT tahun 2009 mencatat bahwa 73% penduduk Indonesia menderita karies gigi. *Streptococcus mutans* merupakan agen utama penyebab karies gigi. Telah diketahui bahwa umbi binahong mempunyai sifat antibakteri. Oleh karena itu, penelitian ini bertujuan untuk membuktikan efek antibakteri infusum umbi binahong terhadap *Streptococcus mutans* secara in vitro. Infusum dibuat dalam 4 konsentrasi berbeda: 100%, 50%, 25% dan 10%. Uji dilusi dilakukan dengan media BHI cair dan TYS20B untuk mengetahui KHM dan KBM. Uji difusi menggunakan media BHA dan BHA darah untuk mengetahui besar zona hambatan. Dari uji dilusi, didapatkan KHM 25% dan KBM diatas 25%. Dari uji difusi pada media BHA, didapatkan besar zona hambatan: 1,375 mm (10%), 1,125 mm (25%), 0,75 mm (50%) dan 1,25 mm (100%). Dari uji difusi pada media BHA darah, didapatkan besar zona hambatan: 1,5 mm (10%), 1,625 mm (25%), 1,5 mm (50%) dan 0,75 mm (100%). Bakteri *S. mutans* sensitif terhadap infusum umbi binahong.

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As one of the most common infectious oral diseases in Indonesia, dental caries has relatively high prevalence. *Streptococcus mutans* appears to be a prominent causative agent of caries. Evidence shows that binahong rhizomes have antibacterial properties. Thus, the aim of the research is to prove whether infusion of binahong rhizomes is effective as an antibacterial agent against *Streptococcus mutans*, in vitro. The infusion was made into four different concentrations: 100%, 50%, 25, and 10%. To determine minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC), dilution test was performed on BHI broth and TYS20B mediums. As to measure the zone of inhibition, diffusion test was performed on Brain-Heart Agar and Brain-Heart-Blood Agar mediums. MIC is achieved on 25% concentration and the MBC is above 25%. Inhibitory zone results on BHA diffusion test are: 1.375 mm (10%), 1.125 mm (25%), 0.75 mm (50%) and 1.25 mm (100%). While on BHB Agar medium: 1.5 mm (10%), 1.625 mm (25%), 1.5 mm (50%) and 0.75 mm (100%). It is concluded that *S. mutans* is sensitive to binahong rhizomes infusion.