

Efek antibakteri infusum Aaoe vera terhadap porphyromonas gingivalis in vitro (perbandingan metode ekstraksi maserasi dan infundasi)

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Abstrak

Porphyromonas gingivalis merupakan bakteri penyebab penyakit periodontal. Aloe vera memiliki khasiat antibakteri karena kandungan senyawa fenol. Tujuan penelitian ini untuk mengetahui efektivitas antibakteri Aloe vera terhadap Porphyromonas gingivalis. Dilakukan metode ekstraksi maserasi dan infundasi terhadap Aloe vera untuk menarik senyawa aktif antibakteri. Uji antibakteri dilakukan dengan metode dilusi (KHM dan KBM) dan difusi (zona hambat).

Hasil metode dilusi menunjukkan nilai KHM sebesar 70% dan tidak terdapat nilai KBM. Sedangkan, metode difusi menunjukkan zona hambat tertinggi sebesar 1,75 mm pada konsentrasi 90%. Kesimpulan, infusum lidah buaya mengandung senyawa aktif fenol, tanin dan antrakuinon serta memiliki sifat bakteristatik dan tidak bersifat bakterisidal terhadap Porphyromonas gingivalis secara in vitro.

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Porphyromonas gingivalis is the main etiologic agent of periodontal disease. Aloe vera has antibacterial effect because of its phenolic compound. The aim of this study is to investigate the antibacterial effectivity of Aloe vera on Porphyromonas gingivalis. The study was performed by extracting Aloe vera using maceration and infusion extraction methods in order to attract the antibacterial active compounds. The test method of the antibacterial effect was carried out by dilution method (MIC and MBC) and diffusion method (inhibition zone).

The results of dilution method showed that MIC value was at 70% concentration while MBC value could not be determined. The largest inhibition zone of the diffusion method was 1,75 mm at 90% concentration. In summary, Aloe vera infuse contained antibacterial active compounds such as phenol, tannin and anthraquinone and showed bacteriostatic effect on Porphyromonas gingivalis, in vitro.