ABSTRAK

Latar belakang : *Staphylococcus epidermidis* adalah salah satu bakteri yang dapat menyebabkan infeksi. Pengobatan infeksi dengan pemberian antibiotik, namun masalah resistensi antibiotik semakin berkembang. Perlu adanya terobosan terbaru, salah satunya melakukan kombinasi dengan tanaman. Berbagai penelitian sebelumnya membuktikan, kombinasi dengan tanaman menunjukan efek sinergis. Ekstrak metanol daun sirih merah juga terbukti mampu menghambat pertumbuhan bakteri. Penelitian ini untuk melihat efek kombinasi ekstrak metanol sirih merah dengan siprofloksasin terhadap pertumbuhan *Staphylococcus epidermidis*.
Metode : Pengujian aktivitas antibakteri menggunakan metode sumuran, kemudian dilihat profil senyawa yang terdapat pada kombinasi tersebut menggunakan Kromatografi Lapis Tipis dan uji tabung. Data zona hambat yang diperoleh kemudian diuji secara statistik menggunakan uji *Kruskal-Wallis* dan *Mann Whitney*.
Hasil : Zona hambat kombinasi lebih sempit dibanding siprofloksasin tunggal. Hasil uji statistik menunjukan ada perbedaan antara zona hambat kombinasi dan zona hambat zat tunggal. Hasil dari skrining fitokimia menunjukan hasil, senyawa antibakteri berupa alkaloid, flavonoid dan tanin terdeteksi dalam larutan kombinasi.
Kesimpulan : Terdapat perbedaan hasil antara kombinasi dan bahan tunggal. Hasil kombinasi tersebut tidak menunjukan efek sinergis.

Kata kunci : siprofloksasin, kombinasi, zona hambat, *Staphylococcus epidermidis*, kromatografi lapis tipis

ABSTRACT

Background: *Staphylococcus epidermidis* is one of the bacteria that can cause infection. Treatment of infections with antibiotics, but the prevalence of antibiotic resistance is increasing. The latest breakthrough is needed, one of which is to do a combination with plants. Various previous studies have shown, a combination with plants shows a synergistic effect. Methanol extract of red betel leaf is also proven to inhibit bacterial growth. This study was to look at the effect of the combination of red betel methanol extract with ciprofloxacin on the growth of *Staphylococcus epidermidis*, and see if there are solutions that contain antibacterial compounds.
Method: Antibacterial activity testing using the well method, then the profile of the compounds found in the combination was seen using Thin Layer Chromatography and tube test. The inhibitory zone data obtained were then tested statistically using the Kruskal-Wallis and Mann Whitney tests.
Results: Combination inhibition zones are narrower than single ciprofloxacin. The results of statistical tests show there is a difference between the combination inhibition zone and a single substance inhibition zone. The results of phytochemical screening showed results, antibacterial compounds in the form of alkaloids, flavonoids and tannins found in combination solutions.
Conclusion: There are differences in results between combinations and single materials. The combination results do not show a synergistic effect

Keywords: ciprofloxacin, combination, inhibition zone, *Staphylococcus epidermidis*, thin layer chromatography