

Aktivitas antibakteri ekstrak daun piper betle l. terhadap bakteri staphylococcus epidermidis = Antibacterial activity of extract of piper betle l leaf against staphylococcus epidermidis

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Abstrak

ABSTRACT

Infeksi nosokomial dapat meningkatkan morbiditas dan mortalitas pasien, bahkan dapat berujung pada kematian. Salah satu organisme penyebab infeksi nosokomial adalah Staphylococcus epidermidis. Kasus resistensi S. Epidermidis terhadap antibiotik pun meningkat sehingga dibutuhkan terapi alternatif. Efek antibakteri dapat diperoleh dari ekstrak tanaman, salah satunya ekstrak daun sirih Piper betle L. . Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri ekstrak daun Piper betle L. terhadap bakteri Staphylococcus epidermidis. Lima konsentrasi ekstrak daun Piper betle L. 62,5 mg/mL, 125 mg/mL, 250 mg/mL, 500 mg/mL, 1000 mg/mL diuji potensi antibakteri secara in vitro dengan metode difusi cara sumuran, kemudian dibandingkan dengan siprofloksasin 5?g sebagai kontrol positif dan akuades sebagai kontrol negatif. Sesuai standar Clinical Laboratory and Standards Institute, zona hambat siprofloksasin pada Staphylococcus epidermidis menunjukkan hasil susceptible pada diameter ge;21 mm. Hasil penelitian menunjukkan bahwa ekstrak daun Piper betle L. memiliki aktivitas antibakteri terhadap bakteri Staphylococcus epidermidis pada seluruh konsentrasi di atas diameter zona hambat ge;21 mm.

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ABSTRACT

Nosocomial infection can increase morbidity and mortality of a patient, even lead to death. One of the causing organism is Staphylococcus epidermidis. Resistance of S. Epidermidis to various antibiotics is increasing so alternative therapy is needed. Antibacterial effect can be obtained from plant extracts, one of which is extract of Piper betle L. leaf. The purpose of this research is to know the antibacterial activity of extract of Piper betle L. leaf against Staphylococcus epidermidis. Five concentrations of Piper betle L. extract 62,5 mg mL, 125 mg mL, 250 mg mL, 500 mg mL, 1000 mg mL were tested in vitro using agar well diffusion method for antibacterial potency compared to ciprofloxacin 5 g as positive control and aquadest as negative control. According to the standard from Clinical Laboratory and Standards Institute, the ciprofloxacin is susceptible for Staphylococcus epidermidis if it has inhibiton zone diameter ge 21 mm. The result of this research shows that the extract of Piper betle L. leaf has antibacterial activity against Staphylococcus epidermidis in all concentrations tested with inhibiton zone diameters ge 21 mm.