

AKTIVITAS ANTIBAKTERI *Capsicum annuum* TERHADAP BAKTERI PENYEBAB CAUTI (*Catheter-associated Urinary Tract Infections*): SUATU KAJIAN LITERATUR

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ISK terkait kateter atau CAUTI (*Catheter-associated Urinary Tract Infections*) dikaitkan dengan peningkatan morbiditas dan mortalitas, dan secara kolektif merupakan penyebab paling umum dari infeksi aliran darah sekunder. Empat bakteri yang paling banyak menyebabkan CAUTI adalah bakteri *Escherichia coli* sebagai patogen utama, kemudian *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, dan *Enterococcus faecalis*. Pasien yang menderita ISK tersebut biasanya diobati dengan antibiotik. Pemberian antibiotik berulang sering menyebabkan resistensi bakteri yang lebih besar sehingga dibutuhkan alternatif pengobatan dari bahan alam seperti *Capsicum annuum* yang telah diteliti aktivitas antibakterinya. Penelitian ini bertujuan untuk melakukan kajian literatur mengenai aktivitas antibakteri dari *Capsicum annuum* sebagai alternatif penggunaan antibakteri. Hasil kajian literatur menunjukkan bahwa ekstrak air suling paprika merah (*Capsicum annuum* var. *grossum*) konsentrasi 20 µg/mL menghasilkan aktivitas antibakteri paling baik terhadap bakteri *Pseudomonas aeruginosa* dengan diameter zona hambat sebesar 13 mm, sedangkan ekstrak metanol 95% Jalapeño (*Capsicum annuum* var. *annuum*) konsentrasi 250 mg/mL menunjukkan aktivitas antibakteri paling baik terhadap bakteri *Klebsiella pneumoniae* dengan diameter zona hambat yang sama besar (13 mm). Adanya aktivitas antibakteri ini disebabkan karena kedua varietas *Capsicum annuum* mengandung flavonoid, dan terdapat senyawa spesifik capsianosides.

Kata kunci: *Capsicum annuum*, cabai, paprika, jalapeno, aktivitas antibakteri

***ANTIBACTERIAL ACTIVITY OF Capsicum annuum AGAINST THE CAUTI
(Catheter-associated Urinary Tract Infections) BACTERIA: A LITERATURE
REVIEW***

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Catheter-related UTIs or CAUTI (*Catheter-associated Urinary Tract Infections*) are associated with increased morbidity and mortality, and collectively the most common causes of secondary blood flow infections. The 4 bacteria that most cause CAUTI are *Escherichia coli* as the main pathogen, then *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, and *Enterococcus faecalis*. Patients suffering from these UTIs are usually treated with antibiotics. Repeated use of antibiotics often leads to worse bacterial resistance. *Capsicum annuum* is a natural ingredient that has been investigated for its antibacterial activity. This study aims to conduct a literature review on the antibacterial activity of *Capsicum annuum* as an alternative to the use of antibacterial. The literature review showed that the 20 µg/mL distilled water extract of red paprika (*Capsicum annuum* var. *grossum*) produced the best antibacterial activity against *Pseudomonas aeruginosa* with an inhibition zone diameter of 13 mm, while the methanol extract 95% Jalapeño (*Capsicum annuum* var. *annuum*) with a concentration 250 mg/mL showed antibacterial activity against *Klebsiella pneumoniae* with the same inhibition zone diameter (13 mm). The antibacterial activity is due to the fact that both varieties of *Capsicum annuum* contain flavonoids, and there are specific compounds known as capsianocides.

Keywords: *Capsicum annuum*, pepper, paprika, jalapeno, antibacterial activity