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ANTIFUNGAL ACTIVITY OF *Pluchea indica*, *Coleus scutellarioides*, *Piper betle* AND THEIR COMBINATION EXTRACTS AGAINST *Candida albicans*

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ABSTRAK

Daun sirih, jawer kotok dan beluntas telah digunakan secara empiris untuk mengatasi keputihandan telah terbukti secara ilmiah dapat menghambat pertumbuhan *Candida albicans*. Penelitian ini bertujuan untuk mengevaluasi kombinasi ekstrak yang efektif sebagai antimikroba terhadap *Candida albicans* sebagai penyebab keputihan. Ekstrak tunggal maupun kombinasi dari dua dan tiga ekstrak dievaluasi aktivitasnya terhadap *Candida albicans* menggunakan metode difusi agar. Seluruh ekstrak tunggal maupun kombinasinya memberikan hambatan terhadap *Candida albicans*. Diameter hambat ekstrak tunggal yang paling besar diberikan oleh ekstrak daun sirih. Diameter hambat terbesar untuk kombinasi dua ekstrak ditunjukkan oleh sirih dan beluntas ($26,57 \pm 0,56$ mm) dibandingkan terhadap kombinasi 2 ekstrak lainnya yaitu sirih dan jawer kotok ($25,17 \pm 0,96$ mm); dan beluntas dan jawer kotok ($22,73 \pm 0,95$ mm). Kombinasi sirih+jawer kotok+beluntas memberikan diameter hambat sebesar $27,53 \pm 1,10$ mm. Kombinasi ekstrak tidak memberikan diameter yang lebih baik dibandingkan terhadap ekstrak sirih tunggal.

Kata kunci: Antifungi, *Candida albicans*, *Pluchea indica*, *Coleus scutellarioides*, *Piper betle*

ABSTRACT

Piper betle, *Coleus scutellarioides* and *Pluchea indica* have been used empirically to overcome vaginal discharge and scientifically proven to inhibit the growth of *Candida albicans*. The goal of this research was to search for a combined extract with effective antimicrobial activity against *Candida albicans*. Single extract, combination of two and three extracts evaluated antimicrobial activity against *Candida albicans* using agar diffusion method. Inhibitory effect of *Piper betle* showed the greatest activity against *Candida albicans* compared to other single extract. Combination of *Piper betle* and *Pluchea indica* (26.57 ± 0.56 mm) gave greater inhibition than two other combination extracts (*Piper betle* and *Coleus scutellarioides* (25.17 ± 0.96 mm); *Coleus scutellarioides* and *Pluchea indica* (22.73 ± 0.95 mm)). The combination of *Piper betle*, *Pluchea indica* and *Coleus scutellarioides* gave inhibition of 27.53 ± 1.10 mm. extracts did not give a better diameter compared to the *betle* extract.

Keywords: Antifungal, *Candida albicans*, *Pluchea indica*, *Coleus scutellarioides*, *Piper betle*