

Effect of *Piper betle* Linn Leaves Extract to Leukocyte and Lymphocyte Count in Balb/C Mice Infected with *Klebsiella pneumoniae*

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ABSTRACT

Klebsiella pneumoniae attack lung tissue and show lung swelling, fever, cough, thickening mucous, and sputum bloody. *Piper betle* Linn leaves has potential as antimicroba which has benefit to decrease risk from adverce effect and addictive of synthetic drug. *Piper betle* Linn contain of sterol which have bactericidal effect against several bacterial pathogens such as *Enterocococcus faecalis*, *C.koseri*, *C.fruendiand* *Klebsiella pnemoniae*. This study aimed to determined the effect of *Piper betle* Linn leaves extract toward leukocyte count and lymphocyte percentage in Balb/C mice infected with *Klebsiella pneumoniae*.

This study was laboratory experiment with post test-only control group design. This study was conducted in microbiology laboratory of Muhammadiyah University of Yogyakarta for March-June 2015. The subjects of this study were 30 Balb/C mice which divided into 6 groups (n=5). They were C1: were not infected, C2: infected but did not given treatment, E1: given 100, E2: 200, E3: 400 mg/kgBW of *Piper betle* Linn leaves extract, and E4: given 3,25 mg of Erythromycin.

Result of research the highest average leukocyte count was 59,8000were not infected and the lowest of it was 26,4000were given 400 mg/kgBW of extract. The highest average lymphocyte percentage was 77,4600were not infectedand the lowest of it was 28,9800were given 3,25 mg of Erythromycin. Statistics analysis for leukocyte count and lymphocyte percentage gaveresult $p>0.05$.

This study proven that there was no significant effect of *Piper betle* Linn leaves extract toward leukocyte and lymphocyte count in Balb/C mice infected with *Klebsiella pneumoniae*.

Keywords: *Piper betle* Linn, *Klebsiella pneumoniae*, Balb/C mice, leukocyte count, lymphocyte count.