"EFEK PEMBERIAN TEH KECOMBRANG (*Etlingera elatior*) TERHADAP KADAR TNF-α TIKUS PUTIH (*Rattus norvegicus*) YANG DIINDUKSI ASPIRIN"

Nine Loisye Payosa Sembiring, Eman Sutrisna[2], Hernayanti[3]
[1]Fakultas Kedokteran Universitas Jenderal Soedirman, Purwokerto
[2]Departemen Farmakologi Fakultas Kedokteran Universitas Jenderal Soedirman, Purwokerto
Email: nineloisyez@gmail.com

ABSTRAK

Latar Belakang — Induksi aspirin dapat menimbulkan reaksi inflamasi seperti gastritis dan ulkus. Senyawa flavonoid, tanin, saponin pada kecombrang memiliki efek antiinflamasi. Senyawa-senyawa tersebut berpotensi untuk menurunkan kadar TNF-α tikus putih.

Tujuan — Mengetahui efek teh kecombrang terhadap kadar TNF-α tikus putih yang diinduksi aspirin.

Desain Penelitian — Penelitian ini menggunakan metode *true experimental* dengan desain *post test only with control group*. Jumlah sampel yang digunakan pada penelitian ini adalah 45 ekor tikus putih jantan galur Wistar yang dibagi kedalam 15 kelompok, yaitu: Kelompok KST1 (positif), KNT1 (negatif). P1T1: aspirin 10 hari teh 1,5 g/200gBB 7 hari, P2T1: aspirin 10 hari, teh 3 g/200gBB 7 hari, P3T1: aspirin 10 hari, teh 6 g/200gBB, 7 hari. KST2 (positif), KNT2 (negatif). P1T2: aspirin 10 hari, teh 1,5 g/200gBB 14 hari, P2T2: aspirin 10 hari, teh 3 g/200gBB 14 hari, P3T2: aspirin 10 hari teh 6 g/200gBB 14 hari. KST3 (positif), KNT3 (negatif). P1T3: aspirin 10 hari, teh 1,5 g/200gBB 28 hari, P2T3: aspirin 10 hari, teh 3 g/200gBB 28 hari, P3T3: aspirin 10 hari, teh 6 g/200gBB 28 hari. Analisis data mengggunakan uji *Kruskal-wallis* dan *Mann-Whitney*.

Hasil —Nilai rerata TNF-α terendah terdapat pada kelompok KST1, diikuti KNT1, P1T1, KST2, P3T1, P2T1, P1T2, P2T2, P3T2, P2T3, KST3, P3T3, P1T3, dan KNT3 dengan hasil uji statistic (p=0.000) diantara semua kelompok dan terdapat perbedaan bermakna antar tiap kelompok.

Kesimpulan — Teh kecombrang dapat menurunkan kadar TNF-α dengan dosis efektif 1,5 g/200gBB tikus.

Kata kunci : Aspirin, TNF-α, Teh Kecombrang

"THE EFFECTS OF KECOMBRANG TEA (Etlingera elatior) ON TNF-α LEVELS OF WHITE RATS (Rattus norvegicus) INDUCED BY ASPIRIN"

Nine Loisye Payosa Sembiring, Eman Sutrisna[2], Hernayanti[3]

[1]*Faculty of Medicine, Jenderal Soedirman University, Purwokerto*

[2]*Department of Pharmacology, Faculty of Medicine, Jenderal Soedirman University, Purwokerto*

Email: nineloisyez@gmail.com

ABSTRACT

Background *— Aspirin induction can cause inflammatory reactions such as gastritis and ulcers. Flavonoid compounds, tannins, saponins in kecombrang have anti-inflammatory effects. These compounds have the potential to reduce TNF-α levels in white rats..*

Objective *— To determine the effect of kecombrang tea on TNF-α levels of aspirin-induced white rats.*

Design *— This study used a true experimental method with a post test only design with a control group. The samples used in this study were 45 male white rats of wistar strain and divided into 15 groups: KST1 (positive), KNT1 (negative). P1T1: aspirin 10 days, tea 1.5 g/200gBB 7 days, P2T1: aspirin 10 days, tea 3 g/200gBB 7 days, P3T1: aspirin 10 days, tea 6 g/200gBB, 7 days. KST2 (positive), KNT2 (negative). P1T2: aspirin 10 days, tea 1.5 g/200gBB 14 days, P2T2: aspirin 10 days, tea 3 g/200gBB 14 days, P3T2: aspirin 10 days tea 6 g/200gBB 14 days. KST3 (positive), KNT3 (negative). P1T3: aspirin 10 days, tea 1.5 g/200gBW 28 days, P2T3: aspirin 10 days, tea 3g/200gBB 28 days, P3T3: aspirin 10 days, tea 6g/200gBW 28 days. Data analysis using Kruskal-Wallis and Mann-Whitney test.*

Results —*The lowest mean TNF-α value was in the KST1, followed by KNT1, P1T1, KST2, P3T1, P2T1, P1T2, P2T2, P3T2, P2T3, KST3, P3T3, P1T3, and KNT3 with statistical test results (p=0.000) between all groups and there was a significant difference between each group.*

Conclusion — *Kecombrang tea can reduce TNF-α levels with an effective dose of 1.5 g/200gBW rats.*

Keywords: *Aspirin, TNF-α, Kecombrang Tea*