

INTISARI

Hiperurisemia adalah suatu keadaan yang ditandai dengan meningkatnya kadar asam urat darah. Masyarakat tidak hanya menggunakan allopurinol, tetapi secara bersamaan menggunakan herbal untuk menurunkan kadar asam urat darah. Herbal yang terbukti menurunkan kadar asam urat darah adalah daun gendarusa (*Justicia gendarussa* Burm.). Tujuan penelitian ini adalah mengetahui interaksi antara allopurinol dan ekstrak etanol daun *J. gendarussa* Burm. terhadap kadar asam urat darah.

Desain penelitian ini adalah eksperimental murni. 20 ekor tikus putih jantan (*Rattus norvegicus*) galur Wistar, dibuat hiperurisemia dengan induksi jus hati ayam 3 mg/200 kgBB selama 28 hari, dilanjutkan pemberian perlakuan hingga hari ke-35. Tikus dibagi menjadi 4 kelompok, yaitu kelompok yang tidak diberi perlakuan, diberi allopurinol 10 mg/kgBB, kombinasi allopurinol 10 mg/kgBB dan 111,012 mg/kgBB ekstrak etanol daun *J. gendarussa* Burm., serta kombinasi allopurinol 10 mg/kgBB dan 222,024 mg/kgBB ekstrak etanol daun *J. gendarussa* Burm, perlakuan diberikan selama 7 hari. Pemeriksaan kadar asam urat darah dilakukan pada hari 0, 28, dan 35.

Selisih kadar asam urat darah tikus sebelum dan sesudah perlakuan pada kelompok tanpa perlakuan adalah $0,32 \pm 0,38$; kelompok allopurinol 10 mg/kgBB adalah $0,76 \pm 0,34$; kelompok kombinasi allopurinol 10 mg/kgBB dan ekstrak etanol *J. gendarussa* Burm. 111,012 mg/kgBB adalah $0,74 \pm 0,72$; kelompok kombinasi allopurinol 10 mg/kgBB dan ekstrak etanol *J. gendarussa* Burm. 222,024 mg/kgBB adalah $0,44 \pm 0,30$. Dapat disimpulkan pemberian kombinasi allopurinol dan ekstrak etanol daun *J. gendarussa* Burm. menimbulkan interaksi obat yang bersifat antagonistik. Kombinasi allopurinol 10 mg/kgBB dan ekstrak etanol daun *J. gendarussa* Burm. 111,012 mg/kgBB memiliki efek antagonistik yang lebih kuat dibanding kombinasi allopurinol 10 mg/kgBB dan ekstrak etanol daun *J. gendarussa* Burm. 222,024 mg/kgBB.

Kata kunci: asam urat, hiperurisemia, *Justicia gendarussa* Burm., allopurinol,

Abstract

Hiperuricemia is a condition which signaled by the increase of uric acid blood level. Society not only use allopurinol, but in collective use herb to reduce the amount of uric acid blood level. One kind of herb which is proved to have the ability to reduce uric acid blood level is gandarusa leaves (Justicia gendarussa Burm.). The purpose of this research is to find out the interaction between allopurinol and ethanol extract of gendarussa Burm. to the uric acid blood level.

This research used pure experimental research design with subject consists of 20 white male rats (Rattus novergicus) Wistar blooded which set to be suffered of hyperuricemia by induction of 3 mg/200 kgBB of chicken liver juice for 28 days, then followed while treatment until the 35th day. The mice are divided in 4 groups which are a group that did not get any treatment, a group that treated by allopurinol 10 mg/kgBB for 7 days, a group treated with the combination of allopurinol 10 mg/kgBB and 111,02 mg/kgBB of ethanol extract from J. gendarussa Burm., and a group treated by the combination of allopurinol 10 mg/kgBB and 222,024 mg/kgBB of ethanol extract of J. gendarussa Burm. This treatment is given for 7 days. Uric acid blood level check was conducted three times before the treatment, at the 0th day, 28th day, and at the 35th day.

The difference of uric acid level before and after treatment on no treatment group is $0,32 \pm 0,38$; group of allopurinol 10 mg/kgBB is $0,76 \pm 0,34$; combination of allopurinol 10 mg/kgBB and 111,02 mg/kgBB of ethanol extract from J. gendarussa Burm., group is $0,74 \pm 0,72$, and combination of allopurinol 10 mm/kgBB and 222,024 mg/kgBB of ethanol extract of J. gendarussa Burm group is $0,44 \pm 0,30$. It can be concluded that combination allopurinol and J. gendarussa Burm. induces drug interaction which is antagonistic. Combination allopurinol 10 mg/kgBB and 111,02 mg/kgBB of ethanol extract from J. gendarussa Burm. has interaction that more potent than combination of allopurinol 10 mg/kgBB and 222,024 mg/kgBB of ethanol extract of J. gendarussa Burm.

Key words: uric acid, hiperuricemia, Justicia gendarussa Burm., allopurinol