

EFEK PEMBERIAN EKSTRAK ETANOL DAUN BOSIBOSI (*Timonius flavescens*) TERHADAP HISTOPATOLOGI PANKREAS TIKUS PUTIH (*Rattus norvegicus*) DIABETIK YANG DIINDUKSI DENGAN ALOKSAN

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ABSTRAK

Penelitian ini dilakukan untuk mengetahui efek pengaruh daun bosibosi (*Timonius flavescens* (jacq.) Baker) terhadap tikus diabetes (*Rattus norvegicus*) galur wistar. 25 ekor tikus jantan sehat (umur 3 bulan berat \pm 200 gr) diambil secara acak dan kemudian dibagikan dalam 5 kelompok: KN, KP, D1, D2, dan kelompok D3. Setelah pengambilan kadar gula darah sebelum diberi perlakuan, semua kelompok (kecuali KP) diinjeksi aloksan sebanyak 150 mg/kg BB secara intraperitoneal yang dilarutkan dalam NaC 10,9 % (volume 0,3 ml). Kelompok KN hanya diberikan 0,5 ml CMC 1 % secara oral. Setelah 24-48 jam penginduksian aloksan, semua hewan uji kembali dilakukan pengecekan kadar gula darah, tikus dengan kadar gula darah 200 mg/dl atau lebih dianggap diabetes. Kemudian hewan uji kelompok perlakuan (D1,D2,D3) yang sudah diabetes diberikan ekstrak etanol daun bosibosi (EEDB) secara oral sebanyak 57 mg/hari (P1), 115 mg/hari (P2), dan 230 mg/hari (P3) selama 11 hari. Kadar gula darah diukur menggunakan glukometer digital (Easy touch) pada hari ke-1, 3, 5, 7, 9, dan hari ke-11 setelah tikus diabetes, dilakukan juga pengukuran berat badan tikus. Setelah tikus dibedah kemudian dibuat preparat histologi pankreas, kemudian diamati jumlah pulau Langerhans, jumlah sel pulau Langerhans, dan diameter pulau Langerhans. Hasil penelitian menunjukkan bahwa terdapat pengaruh ekstrak etanol daun bosibosi terhadap histopatologi pankreas tikus diabetes kelompok perlakuan D1, D2, dan D3 dibuktikan dengan adanya peningkatan jumlah pulau Langerhans dan jumlah sel pulau Langerhans pankreas, walaupun perbedaannya tidak signifikan dengan perlakuan KP, adanya peningkatan jumlah pulau Langerhans dan jumlah sel pulau Langerhans pankreas tikus diabetes setelah pemberian ekstrak etanol bosibosi dengan dosis 230 mg/200 g BB tikus. Berdasarkan pengamatan histologi, diduga terdapat juga perbaikan sel-sel pulau langerhans pankreas.

Keywords: Bosibosi (*Timonius flavescens*) (Jacq.) Baker, Tikus (*Rattus norvegicus*), Diabetes, Aloksan,

EFFECT OF EXTRACT ETHANOL LEAF OF BOSIBOSI LEAF (*Timonius flavescens*) TO THE PANCREAS HISTOPATOLOGY RATS WHITE (*Rattus novergicus*) INDICATED DIABETICS WITH ALOKSAN

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ABSTRACT

This study was conducted to determine the effect of the influence of leaf bosibosi (*Timonius flavescens* (jacq.) Baker) to diabetic rats (*Rattus novergicus*) wist ar strain. 25 healthy male rats (aged 3 months of weigh \pm 200 gr) are taken randomly and steering an distributed in 5 groups: KN, KP, D1, D2, and group D3. After taking the blood sugar level before by the treatment, all groups (except KP) were injected alloxan 150 mg / kg intraperitoneally dissolved in a 10 NAC, 9% (volume 0.3 ml). KN group were only given 0.5 ml of CMC 1% orally. After 24-48 hours of alloxan induction, all test animals were again checked for blood sugar levels, mice with blood sugar levels of 200 mg/dl or more were considered diabetes. Then the test animals treated group (D1, D2, D3) are already diabetic given ethanol extract of the leaves bosibosi administered orally as 57 mg /day (D1), 115 mg / day (D2), and 230 mg / day (D3) for 11 days. Blood sugar levels were measured using a digital glucometer (easy touch) on days 1, 3, 5, 7, 9, and the 11 th day after the diabetic mice, and also measure body weight of rats. After then made prepartions dissected rat pancreatic histology, then the observed number of islets of Langerhans, the islets of Langerhans cell number, and the diameter of islets of Langerhans. The resoultis showed that there are significant enelitian ethanol extract of leaves bosibosi agains pancreatic histopathology of diabetic rats treated group D1, D2, and D3 evidenced by the increase in the number of islets of Langerhans and the number of cell islets of Langerhans pancreas, despite its differences are not significant to the treatment KP, an increase in the number of islets of Langerhans and the number of cell islets of Langerhans of the pancreas of diabetic rats following ethanol extract bosibosi at a dose of 230 mg / 200 g BB rat. Based on histological observations, it is suspected that there are also improvements of the pancreatic Langerhans island cells.

Keywords: Bosibosi (*Timonius flavescens*) (Jacq.) Baker, Rat (*Rattus norvegicus*), Diabetic, Alloxan.