

ABSTRAK

Diabetes Mellitus merupakan penyakit metabolik yang ditandai dengan meningkatnya kadar glukosa darah, dan dapat menyebabkan stres oksidatif serta inflamasi pada berbagai organ, termasuk ginjal. Salah satu penanda inflamasi yang berperan dalam komplikasi diabetes mellitus adalah Interleukin-6 (IL-6). Gagaten Harimau merupakan tanaman endemik Kawasan Leuser yang dikenal sebagai tanaman obat tradisional. Daun tanaman ini mengandung senyawa metabolit sekunder seperti flavonoid dan fenolik yang berpotensi sebagai antioksidan dan antiinflamasi, maka dari itu dipercaya memiliki manfaat sebagai antidiabetes alami. Penelitian ini bertujuan untuk mengetahui efektivitas ekstrak etanol daun Gagaten Harimau (*Paraboea Leuserensis*) dalam menurunkan kadar Interleukin-6 pada homogenate jaringan ginjal tikus diabetes yang diinduksi streptozotosin. Penelitian ini menggunakan metode eksperimental *in vivo* dengan desain *post-test only control group design*. Tikus dibagi menjadi enam kelompok perlakuan, kemudian ekstrak diberikan secara oral selama 28 hari. Kadar Interleukin-6 (IL-6) diukur menggunakan metode ELISA. Hasil penelitian ini menunjukkan bahwa kelompok diabetes memiliki kadar Interleukin-6 (IL-6) tertinggi, yaitu 83,42 pg/mL. Pemberian ekstrak etanol Daun Gagaten Harimau menunjukkan penurunan kadar Interleukin-6, terutama pada kelompok dosis 400 mg/kgBB dengan rata-rata 36,45 pg/mL. Hasil ini menunjukkan bahwa ekstrak daun Gagaten Harimau berpotensi sebagai antidiabetes alami melalui aktivitas antiinflamasi, meskipun masih diperlukan penelitian lanjutan untuk memperkuat hasil tersebut.

Kata kunci: *Diabetes Mellitus, Gagaten Harimau, Paraboea Leuserensis, Interleukin-6, streptozotosin, antiinflamasi, antidiabetes.*

ABSTRACT

Diabetes Mellitus is a metabolic disease characterized by increased blood glucose levels, and it can cause oxidative stress and inflammation in various organs, including the kidneys. One inflammatory marker involved in complications of diabetes mellitus is Interleukin-6 (IL-6). Gagaten Harimau is an endemic plant of the Leuser area known as a traditional medicinal plant. The leaves of this plant contain secondary metabolite compounds such as flavonoids and phenolics that have potential as antioxidants and anti-inflammatory agents, and therefore are believed to have benefits as a natural antidiabetic. This study aims to determine the effectiveness of ethanol extract of Gagaten Harimau leaves (*Paraboea Leuserensis*) in reducing Interleukin-6 levels in kidney tissue homogenates of streptozotocin-induced diabetic rats. This study used an in vivo experimental method with a post-test only control group design. Rats were divided into six treatment groups, and then the extract was administered orally for 28 days. The Interleukin-6 (IL-6) levels were measured using the ELISA method. The results of this study showed that the diabetes group had the highest Interleukin-6 (IL-6) levels, which was 83.42 pg/mL. Administration of ethanol extract of Harimau Gagaten leaves showed a decrease in Interleukin-6 levels, particularly in the 400 mg/kgBW dose group with an average of 36.45 pg/mL. These results indicate that Harimau Gagaten leaf extract has potential as a natural antidiabetic through anti-inflammatory activity, although further research is required to strengthen these results.

Keywords: *Diabetes Mellitus, Harimau Gagaten, Paraboea Leuserensis, Interleukin-6, streptozotocin, anti-inflammatory, antidiabetic.*