

AKTIVITAS ANTIHIPERURISEMIA EKSTRAK JAHE (*Zingiber officinale*) TERHADAP MODEL HEWAN SINDROM METABOLIK

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ABSTRAK

Hiperurisemia adalah kondisi di mana terjadi peningkatan kadar asam urat dalam darah, yang dapat menjadi faktor risiko utama untuk pengembangan sindrom metabolik. Jahe mengandung senyawa aktif seperti gingerol dan zingiberen, memiliki potensinya dalam mengurangi kadar asam urat dan memiliki efek antiinflamasi. Penelitian ini bertujuan untuk mengevaluasi aktivitas antihiperurisemia dari ekstrak jahe (*Zingiber officinale*) menggunakan model hewan sindrom metabolik. Ekstrak jahe diuji terhadap tikus yang telah diinduksi dengan fruktosa 25% dan kalium oksonat. Metode pengukuran meliputi analisis kadar asam urat serum, pengukuran berat badan, serta evaluasi kadar glukosa, kadar trigliserida dan kekakuan arteri. Hasil penelitian menunjukkan bahwa pemberian ekstrak jahe dosis 50 dan 100 mg/Kg menurunkan bobot badan tikus, kadar asam urat, kadar glukosa, kadar trigliserida, dan menstabilkan denyut jantung dan menjaga elastisitas arteri, yang berbeda bermakna dengan kelompok positif ($p < 0,05$). Temuan ini menunjukkan potensi jahe sebagai agen alami dalam mengurangi hiperurisemia pada kondisi sindrom metabolik, yang berpotensi bermanfaat dalam pengelolaan kondisi metabolik dan penyakit terkait.

Kata kunci: Hiperurisemia, sindrom metabolik, jahe, antiinflamasi, fruktosa

ANTIHYPERURICEMIA ACTIVITY OF GINGER EXTRACT (*Zingiber officinale*) AGAINST ANIMAL MODELS OF METABOLIC SYNDROME

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ABSTRACT

*Hyperuricemia is a condition characterized by elevated uric acid levels in the blood, which can be a major risk factor for the development of metabolic syndrome. Ginger, containing active compounds such as gingerol and zingiberene, has potential in reducing uric acid levels and possesses anti-inflammatory effects. This study aims to evaluate the antihyperuricemic activity of ginger extract (*Zingiber officinale*) using a metabolic syndrome animal model. Ginger extract was tested on rats induced with 25% fructose and potassium oxonate. The measurement methods included serum uric acid analysis, body weight measurement, as well as evaluation of glucose levels, triglyceride levels, and arterial stiffness. The results showed that administration of ginger extract at doses of 50 and 100 mg/kg reduced the rats' body weight, uric acid levels, glucose levels, triglyceride levels, stabilized heart rate, and maintained arterial elasticity, which were significantly different from the positive control group ($p < 0.05$). These findings suggest the potential of ginger as a natural agent in reducing hyperuricemia in metabolic syndrome conditions, which may be beneficial in managing metabolic conditions and related diseases.*

Keywords: Hyperuricemia, metabolic syndrome, ginger, anti-inflammatory, fructose