# ABSTRAK

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| Nama | : | Erna Yanti |
| Program Studi | : | Farmasi S1 |
| Judul | : | Efek Hipoglikemia Ekstrak Etanol Herba Suruhan (*Peperomia pellucida* (L.) Kunth) Terhadap Bentuk Otak Dan Perbaikan Nyeri Neuropati Pada Tikus Diabetes |

Diabetes mellitus merupakan penyakit metabolik yang ditandai dengan hiperglikemia kronis yang dapat menyebabkan berbagai komplikasi, termasuk neuropati diabetik dan gangguan fungsi otak. Penelitian ini bertujuan untuk mengevaluasi efek hipoglikemik ekstrak etanol suruhan (*Peperomia pellucida L. Kunth*) serta pengaruhnya terhadap bentuk otak dan perbaikan nyeri neuropati pada tikus diabetes. Penelitian ini menggunakan metode eksperimental dengan desain acak lengkap, melibatkan tikus putih jantan galur *Sprague Dawley* yang diinduksi diabetes menggunakan streptozotosin (STZ) dan dibagi menjadi enam kelompok perlakuan. Hasil penelitian menunjukkan bahwa pemberian ekstrak etanol suruhan dengan dosis 125 mg/kg BB, 250 mg/kg BB, dan 500 mg/kg BB memiliki efek hipoglikemik, dengan dosis 500 mg/kg BB menunjukkan persentase penurunan kadar glukosa darah puasa tertinggi dibandingkan dengan kelompok kontrol positif. Analisis makroskopis otak tikus menunjukkan bahwa diameter dan bobot otak masih berada dalam rentang normal, serta tidak ditemukan perubahan signifikan terkait kadar glukosa darah. Pengujian neuropati menunjukkan bahwa pemberian ekstrak etanol suruhan memberikan efek positif dalam mengurangi nyeri neuropatik, dengan hasil yang signifikan pada beberapa hari pengujian.

**Kata kunci**: *Peperomia pellucida* (L.) Kunth, diabetes mellitus, hipoglikemia, neuropati diabetik, tikus *Sprague Dawley*.

# ABSTRACT

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| Name | : | Erna Yanti |
| Study program | : | Pharmacy |
| Tietle | : | Hypoglycemia Effect of Ethanol Extract of Suruhan (*Peperomia pellucida* (L.) Kunth) on Brain Shape and Improvement of Neuropathy Pain of Diabetic Rats |

Diabetes mellitus is a metabolic disease characterized by chronic hyperglycemia which can lead to various complications, including diabetic neuropathy and impaired brain function. This study aims to evaluate the effect of hypoglycemic effect of ethanol extract of Suruhan (*Peperomia pellucida* L. Kunth) and its effect on brain shape and neuropathy pain improvement. effect on brain shape and neuropathy pain improvement in diabetic rats. diabetes. This study used an experimental method with a randomized complete block design. design, involving male white rats of *Sprague Dawley* strain that were induced diabetes using streptozotocin (STZ) and divided into six treatment groups. treatment groups. The results showed that the administration of ethanol extract ethanol extract with doses of 125 mg/kg BW, 250 mg/kg BW, and 500 mg/kg BW has a hypoglycemic effect, with a dose of 500 mg/kg BW having a hypoglycemic effect. hypoglycemic effect, with a dose of 500 mg/kg BW showing the highest percentage reduction in fasting blood glucose levels compared to the treatment group. blood glucose levels compared to the positive control group. Macroscopic analysis of the rat brain showed that the diameter and weight of the brain were still within the normal range, and there were no findings in the macroscopic analysis of the brain. within the normal range, and no significant changes were found related to blood glucose levels. blood glucose levels. Neuropathy testing showed that the administration of ethanol ethanol extract had a positive effect in reducing neuropathic pain, with significant results on several days of testing.

**Keywords:** *Peperomia pellucida* (L.) Kunth, diabetes mellitus, hypoglycemia, diabetic neuropathy, *Sprague Dawley ratts.*