

**FAKULTAS KEDOKTERAN
UNIVERSITAS PEMBANGUNAN NASIONAL “VETERAN” JAKARTA**

Skripsi, Januari 2026

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**GAMBARAN HISTOPATOLOGI HATI TIKUS GALUR WISTAR MODEL
HIPERKOLESTEROLEMIA DIABETES SETELAH PEMBERIAN EKSTRAK
ETANOL BUNGA KRISAN (*Chrysanthemum morifolium*)**

(xvii + 72 halaman, 18 tabel, 8 gambar, 6 lampiran)

ABSTRAK

Tujuan

Diabetes melitus dan hiperkolesterolemia adalah dua kondisi metabolik yang prevalensinya terus meningkat. Kedua kondisi tersebut bisa mengakibatkan komplikasi kepada bermacam organ, termasuk hati. Penelitian ini dilakukan dengan tujuan mengetahui efek pemberian ekstrak etanol bunga krisan (*C. morifolium*) terhadap gambaran histopatologi hati tikus galur Wistar model hiperkolesterolemia diabetes.

Metode

Penelitian ini berjenis eksperimental menggunakan tikus coba, dengan desain *posttest-only control group design*. Sampel penelitian, yakni tikus putih galur Wistar (*Rattus norvegicus*) yang dipilih menggunakan teknik *simple random sampling*, mengikuti kriteria inklusi serta eksklusif. Variabel independen dalam penelitian, yakni ekstrak etanol bunga krisan pada dosis 75, 150, serta 300 mg/kgBB, sedangkan variabel dependen, yakni gambaran histopatologi hati tikus galur Wistar yang dinilai menggunakan sistem skoring Manja-Roenigk. Analisa data digunakan uji one-way ANOVA, dilanjutkan dengan uji post hoc Bonferroni.

Hasil

Hasil uji one-way ANOVA memperlihatkan perbedaan signifikan antara masing-masing kelompok (*sig.* 0,000). Uji post hoc Bonferroni memperlihatkan bahwa kelompok perlakuan memiliki hasil bermakna dengan kontrol negatif. Kelompok dengan rerata skoring Manja-Roenigk paling mendekati kontrol normal adalah kelompok perlakuan 3 yang diberi ekstrak etanol bunga krisan (*C. morifolium*) dosis 300 mg/kgBB.

Kesimpulan

Dalam penelitian didapatkan pemberian ekstrak etanol bunga krisan (*C. morifolium*) berpengaruh dalam memberikan perbaikan terhadap gambaran histopatologi hati tikus galur Wistar model hiperkolesterolemia diabetes, dimana dosis 300 mg/kgBB paling efektif dalam membantu perbaikan gambaran histopatologi hati tikus.

Daftar Pustaka : 71 (2013-2025)

Kata Kunci : *Chrysanthemum morifolium*, Diabetes, Hiperkolesterolemia, Histopatologi_Hati

**FACULTY OF MEDICINE
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Undergraduate Thesis, January 2026

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**HISTOPATHOLOGICAL IMAGE OF THE LIVER OF WISTAR RATS IN THE
DIABETIC HYPERCHOLESTEROLEMIA MODEL AFTER ADMINISTRATION OF
CHRYSANTHEMUM FLOWER ETHANOL EXTRACT (*Chrysanthemum morifolium*)**

(xvii + 72 pages, 18 tables, 8 pictures, 6 appendices)

ABSTRACT

Objective

*Diabetes mellitus and hypercholesterolemia are two metabolic conditions with increasing prevalence. Both conditions can lead to complications in various organs, including the liver. This study aimed to determine the effect of ethanol extract of chrysanthemum flowers (*C. morifolium*) on the liver histopathology of Wistar rats in a diabetic hypercholesterolemia model.*

Method

*This research was an experimental study using rats, with a posttest-only control group design. The research sample, namely white rats of the Wistar strain (*Rattus norvegicus*), was selected using a simple random sampling technique, following the inclusion and exclusion criteria. The independent variable in the study was the ethanol extract of chrysanthemum flowers at doses of 75, 150, and 300 mg/kgBW, while the dependent variable was the histopathological appearance of the liver of Wistar rats, which was assessed using the Manja-Roenigk scoring system. Data analysis used a one-way ANOVA test, followed by a Bonferroni post hoc test.*

Result

*The results of the one-way ANOVA test showed a significant difference between each group (sig. 0.000). The Bonferroni post hoc test showed that the treatment group had significant results compared to the negative control. The group with the Manja-Roenigk mean score closest to the normal control was treatment group 3, which was given ethanol extract of chrysanthemum flowers (*C. morifolium*) at a dose of 300 mg/kgBW.*

Conclusion

*In the study, it was found that administering ethanol extract of chrysanthemum flowers (*C. morifolium*) had an effect on improving the histopathological appearance of the livers of Wistar rats in the diabetic hypercholesterolemia model, where a dose of 300 mg/kgBW was the most effective in helping improve the histopathological appearance of the livers of rats.*

Reference : 71 (2013-2025)

Keywords : *Chrysanthemum morifolium, Diabetes, Hypercholesterolemia,
Liver_Histopathology*