

**EFEK PEMBERIAN KEFIR SUSU KAMBING
TERHADAP KADAR KREATININ TIKUS PUTIH GALUR WISTAR
MODEL DIABETES MELITUS TIPE 2 (DMT2)**

Salma Fauziah Nurrohmah¹, Alfi Muntafiah², Indah Nur'aini³

¹Program Pendidikan Dokter Fakultas Kedokteran Universitas Jenderal Soedirman

^{2,3}Departemen Biokimia Fakultas Kedokteran Universitas Jenderal Soedirman

Email : salma.nurrohmah@mhs.unsoed.ac.id

ABSTRAK

Pendahuluan: Diabetes melitus tipe 2 merupakan penyakit metabolik yang banyak dialami oleh penduduk dunia. DM tipe 2 dapat memicu berbagai komplikasi, salah satunya nefropati diabetik. Tujuan penelitian ini untuk mengetahui efek pemberian kefir susu kambing terhadap kadar kreatinin tikus putih galur Wistar model DM Tipe 2.

Metode: Penelitian ini menggunakan metode *true experimental* dengan rancangan *posttest only with control group design*. Sebanyak 30 ekor tikus dibagi menjadi lima kelompok secara acak. Kelompok A sebagai kontrol sehat, kelompok B sebagai kontrol sakit dengan induksi HFD-STZ, kelompok perlakuan C, D, E dengan induksi HFD-STZ yang diberi kefir susu kambing selama 28 hari dengan dosis 1,05; 2,1; dan 4,2 mL/200gBB/hari.

Hasil: Rerata kadar kreatinin (mg/dL) pada setiap kelompok tikus, yaitu kelompok A = $0,71 \pm 0,06$; kelompok B = $0,70 \pm 0,21$; kelompok C = $0,69 \pm 0,10$; kelompok D = $0,75 \pm 0,06$; kelompok E = $0,82 \pm 0,11$. Hasil uji parametrik *Welch ANOVA* didapatkan nilai $p = 0,577$ yang menunjukkan bahwa tidak terdapat perbedaan kadar kreatinin yang bermakna antar kelompok.

Kesimpulan: Kefir susu kambing tidak memiliki efek secara signifikan terhadap kadar kreatinin tikus putih Galur Wistar model DMT2.

Kata Kunci: DM Tipe 2, Kefir Susu Kambing, Kreatinin.

**EFFECT OF GOAT MILK KEFIR ADMINISTRATION
ON CREATININE LEVELS IN WISTAR STRAIN WHITE RATS MODELED
FOR TYPE 2 DIABETES MELLITUS (DMT2)**

Salma Fauziah Nurrohmah¹, Alfi Muntafiah², Indah Nur'aini³

¹ Medical Doctor Education Program, Faculty of Medicine, Jenderal Soedirman
University

^{2,3} Department of Biochemistry, Faculty of Medicine, Jenderal Soedirman University
Email : salma.nurrohmah@mhs.unsoed.ac.id

ABSTRACT

Introduction: Type 2 diabetes mellitus is a metabolic disease that affects many people around the world. Type 2 DM can trigger various complications, one of which is diabetic nephropathy. The purpose of this study was to determine the effect of goat milk kefir on creatinine levels in Wistar rats with type 2 DM.

Method: This study used a true experimental method with a posttest-only control group design. A total of 30 rats were randomly divided into five groups. Group A was the healthy control group, group B was the sick control group with HFD-STZ induction, and treatment groups C, D, and E were HFD-STZ-induced groups given goat milk kefir for 28 days at doses of 1,05; 2,1; and 4,2 mL/200gBW/day.

Results: The mean creatinine levels (mg/dL) in each group of rats were as follows: group A = 0.71 ± 0.06 ; group B = 0.70 ± 0.21 ; group C = 0.69 ± 0.10 ; group D = 0.75 ± 0.06 ; group E = 0.82 ± 0.11 . The results of the parametric Welch ANOVA test showed a p-value of 0.577, indicating that there was no significant difference in creatinine levels between groups.

Conclusion: Goat milk kefir has no significant effect on the creatinine levels of Wistar strain white rats with DMT2.

Keywords: Type 2 DM, Goat Milk Kefir, Creatinin.