

EFEKTIVITAS EKSTRAK BIJI KETUMBAR (*Corriandrum sativum L.*) TERHADAP GAMBARAN HISTOPATOLOGIK SEL BUSA ATEROSKLEROSIS AORTA ABDOMINALIS TIKUS MODEL HIPERKOLESTEROLEMIA DIABETES

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ABSTRAK

Ekstrak biji ketumbar (EBJ) diduga memiliki potensi untuk memperbaiki proses pembentukan sel busa lesi aterosklerosis. Penelitian ini bertujuan untuk mengetahui efektivitas pemberian ekstrak biji ketumbar terhadap gambaran histopatologi sel busa aterosklerosis aorta abdominalis tikus model hiperkolesterolemia diabetes. Penelitian dilakukan selama 63 hari. Sebanyak 30 ekor tikus galur Wistar dibagi ke dalam 5 kelompok, masing-masing kelompok terdiri dari 6 ekor. Kelompok kontrol negatif (pakan standar), kelompok kontrol positif (pakan tinggi lemak dan aloksan + glibenklamid 0.045 mg), kelompok perlakuan 1 (pakan tinggi lemak dan aloksan + EBJ 300 mg/kgBB/hari), kelompok perlakuan 2 (pakan tinggi lemak dan aloksan + EBJ 500 mg/kgBB/hari), dan kelompok perlakuan 3 (pakan tinggi lemak dan aloksan + EBJ 700 mg/kgBB/hari). Setelah perlakuan, dilakukan pembedahan dan pengambilan organ aorta abdominalis lalu dibuat preparat untuk menilai gambaran sel busa. Analisis statistika dengan Uji *One Way ANOVA* dan uji *Post Hoc Bonferoni* menunjukkan ada perbedaan signifikan (*P Value*=0.049) antara kelompok kontrol positif dengan kelompok perlakuan 3. Kesimpulannya, EBJ dosis 700 mg/kgBB/hari memiliki efektivitas untuk menurunkan pembentukan sel busa dalam proses aterosklerosis.

Kata Kunci : Aterosklerosis, Ekstrak Biji Ketumbar, Sel Busa.

THE EFFECTIVENESS OF CORIANDER SEED EXTRACT ON HISTOPATHOLOGICAL FEATURES OF ATHEROSCLEROTIC FOAM CELLS ABDOMINAL AORTA IN RATS HYPERCHOLESTEROLEMIA DIABETES MODEL

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ABSTRACT

Coriander Seed Extract (CSE) is thought to have the potential to repair foam cell formation process which is part of atherosclerotic lesion. The aim of this study is to identify the effects of coriander seed extract on histopathological features of atherosclerotic foam cells abdominal aorta in rats hypercholesterolemia diabetes model. The study was conducted for 63 days. 30 rats were grouped into five groups, each group consist of 6 rats. Negative control group (standar feed), positive control group (high fat diet and alloxan + glibenclamide 0.045 mg), treatment group 1 (high fat diet and alloxan + CSE 300 mg/kgBB/day), treatment group 2 (high fat diet and alloxan + CSE 500 mg/kgBB/day), treatment group 3 (high fat diet and alloxan + CSE 700 mg/kgBB/day). After the treatment were given to each group, the next procedure were dissection, extraction of the aorta abdominal organ, and histopathological examination of foam cell. Data were analyzed with One Way ANOVA test and Post Hoc Bonferoni test show there are significant difference (P value = 0.049) between positive control group and treatment group 3. In conclusion, CSE 700 mg/kgBB dose can reduce foam cell formation.

Keyword : Atherosclerosis, Coriander Seed Extract, Foam Cell.