

**EFEK KRIM LENDIR BEKICOT TERHADAP KADAR *SUPEROXIDE
DISMUTASE (SOD) KULIT MENCIT MODEL *SUNBURN* YANG
DIINDUKSI SINAR ULTRAVIOLET-B***

ABSTRAK

Latar Belakang : *Sunburn* adalah eritema pada kulit akibat paparan sinar matahari secara langsung melalui paparan sinar ultraviolet. *Sunburn* disebabkan oleh radiasi UV yang menimbulkan kerusakan *Deoxyribonucleic acid* (DNA) secara langsung akibat eksitasi DNA oleh sinar ultraviolet-B yang memicu timbulnya inflamasi dan radikal bebas. Pada literature dikatakan bahwa lendir bekicot *Achatina fulica* memiliki kandungan sebagai antiinflamasi dan antioksidan.

Tujuan : Meneliti efek pemberian krim lendir bekicot dalam mencegah penurunan kadar SOD pada kulit mencit model *sunburn* yang diinduksi sinar UVB.

Metode : Mencit yang terbagi dalam tujuh kelompok yaitu kelompok XO : kontrol normal, kelompok XSB: kelompok kontrol positif dengan menggunakan *sunblock*, kelompok XB : kelompok kontrol negatif, kelompok X1, X2, X3, dan X4 : kelompok perlakuan yang diberikan krim bekicot dengan dosis berturut-turut 2%, 5%, 7%, dan 10%. Sampel kulit diambil dan diukur kadar SOD pada kulit. Analisis data menggunakan uji *One Way ANOVA*.

Hasil: Analisis statistik menunjukkan adanya perbedaan signifikan dalam ketujuh kelompok perlakuan ($p < 0,05$). Kelompok XB memiliki rerata kadar SOD terendah dibandingkan kelompok lainnya ($< 0,05$). Kelompok perlakuan memiliki hasil rerata yang meningkat sesuai dengan peningkatan dosis krim bekicot. Kelompok X4 memiliki hasil rerata kadar SOD tertinggi dibanding kelompok lainnya.

Kesimpulan : Pemberian krim bekicot (*Achatina fulica*) dapat mencegah penurunan kadar SOD kulit mencit model *sunburn* yang diinduksi UVB.

Kata Kunci : *Achatina fulica*, SOD, UVB

**THE EFFECT OF SNAIL *Achatina fulica* CREAM ON SUPEROXIDE
DISMUTASE (SOD) LEVELS OF ULTRAVIOLET-B INDUCED SUNBURN
MODEL OF MICE SKIN**

ABSTRACT

Introduction : Sunburn is erythema on the skin due to direct exposure to sunlight through exposure to ultraviolet rays. Sunburn is caused by UV radiation which causes direct damage to Deoxyribonucleic acid (DNA) due to DNA excitation by ultraviolet-B rays which triggers inflammation and free radicals. In the literature it is said that the mucus of the snail *Achatina fulica* has anti-inflammatory and antioxidant properties. This study aims to examine the effect of giving snail slime cream in preventing a decrease in SOD levels in the skin of sunburn-induced mice models of UVB rays.

Methods: Mice were divided into seven groups, namely group XO: normal control, group XSB: positive control group using sunblock, group XB: negative control group, groups X1, X2, X3, and X4: treatment group given snail cream with doses respectively 2%, 5%, 7%, and 10%. Skin samples were taken and SOD levels were measured on the skin. Data analysis used the One Way ANOVA test.

Results: Statistical analysis showed that there were significant differences in the seven treatment groups ($p < 0.05$). The XB group had the lowest average SOD level compared to the other groups (< 0.05). The treatment group had an average yield that increased according to the increase in the dose of snail cream. Group X4 had the highest average SOD level compared to the other groups.

Discussion: Administration of snail cream can prevent a decrease in UVB-induced sunburn mice skin SOD levels.

Keywords: *Achatina fulica*, SOD, UVB