

**EFEKTIVITAS KRIM LENDIR BEKICOT (*Achatina fulica*)  
DALAM MENGHAMBAT PEMBENTUKAN SEL *SUNBURN*  
PADA KULIT MENCIT (*Mus musculus*) BALB/c  
(Studi eksperimental dengan diinduksi radiasi sinar UVB)**

**ABSTRAK**

**Latar Belakang** — *Sunburn* merupakan luka bakar radiasi pada kulit oleh paparan sinar UV. Ultraviolet B (UVB) merupakan sinar UV yang paling berbahaya bagi manusia dan dapat menyebabkan resiko kanker kulit. Pancaran sinar UVB dapat merusak DNA sehingga dapat menimbulkan respon berupa apoptosis sel keratinosit atau disebut juga sel *sunburn*.

**Tujuan** — Mengetahui efektivitas pemberian krim lendir bekicot (*Achatina fulica*) terhadap penghambatan pembentukan sel *sunburn* pada kulit mencit (*Mus musculus*) BALB/c yang diinduksi radiasi sinar UVB.

**Metode** — Penelitian eksperimental dengan *randomized post-test only control group design*. Subjek penelitian yang digunakan adalah mencit BALB/c (*Mus musculus*) jantan 35 ekor dan dibagi menjadi 7 kelompok. XO kelompok tanpa perlakuan, XB kontrol dengan penyinaran UVB dan pemberian krim plasebo, XSB kontrol dengan penyinaran UVB dan pemberian *sunblock*, dan X1, X2, X3, serta X4 sebagai perlakuan yang diberikan penyinaran dan mendapat krim lendir bekicot dengan dosis secara berturut turut 2%, 5%, 7%, 10% sebanyak 1x penyinaran. Kulit punggung mencit akan diambil untuk dilakukan penghitungan sel *sunburn*. Data dianalisis menggunakan uji normalitas *Saphiro-wilk* dan uji varian *Levene* dengan masing-masing nilai signifikansi  $p > 0,05$ . Uji komparatif *One Way ANOVA*, uji lanjut *Post-hoc LSD*, dan uji korelatif *Spearman's rho* dengan masing-masing nilai signifikansi  $p < 0,05$ .

**Hasil** — Seluruh kelompok data terdistribusi normal pada uji *Saphiro-wilk* ( $p > 0,05$ ) dan homogen pada uji *Levene* dengan nilai  $p = 0,436$  ( $p < 0,05$ ) setelah dilakukan transformasi *square root*. Terdapat perbedaan rerata jumlah sel *sunburn* yang signifikan pada uji *One Way ANOVA*  $p = 0,00$  ( $p < 0,05$ ) antara keseluruhan kelompok baik kelompok kontrol, kontrol negatif, kontrol positif, dan kelompok perlakuan. Uji *post-hoc LSD* menunjukkan kelompok dengan perbedaan rerata paling signifikan (16,20) adalah antara kelompok kontrol negatif dan kelompok perlakuan 4 (X4) dengan  $p = 0,00$  ( $p < 0,05$ ). Data untuk analisis korelasi tidak terdistribusi normal pada uji *Saphiro-wilk* ( $p < 0,05$ ). Terdapat hubungan antara dosis krim lendir bekicot terhadap persentase sel *sunburn* pada uji *Spearman's rho* dengan  $p = 0,00$  ( $p < 0,05$ ) serta kekuatan hubungan antara dosis krim lendir bekicot terhadap persentase sel *sunburn* adalah sangat kuat ditunjukkan dengan nilai *Pearson Correlation* ( $r$ ) = -0,900.

**Kesimpulan** — Krim lendir bekicot efektif menghambat pembentukan sel *sunburn* dengan dosis yang paling efektif pada penelitian ini ialah dosis 10%.

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**Kata kunci:** UVB, Sel *Sunburn*, Krim Lendir Bekicot

**THE EFFECTIVENESS OF SNAIL (*Achatina fulica*) SLIME CREAM  
TOWARD INHIBITING THE FORMATION OF SUNBURN CELLS  
ON MICE (*Mus musculus*) BALB/c SKIN  
(Experimental study with induced UVB radiation)**

**ABSTRACT**

**Background** — Sunburn is a radiation burn of the skin by exposure to UV light. UVB is the most dangerous UV light for humans and can cause skin cancer risk. UVB rays can damage DNA so that it can cause a response in the form of apoptosis of keratinocyte cells or also called sunburn cells.

**Objective** — Determined the effectiveness of snail slime (*Achatina fulica*) cream on inhibited the formation of sunburn cells on the skin of BALB/c mice (*Mus musculus*) induced by UVB radiation.

**Method** — This research method was experimental research using randomized post-test only control group design. The research subjects used were 35 BALB/c male mice (*Mus musculus*) and divided into 7 groups. XO as a group without treatment, XB as a control with UVB irradiation and placebo cream, XSB as a control with UVB irradiation and sunblock, and X1, X2, X3, and X4 as treatment groups that were irradiated and received snail slime cream with each dose respectively 2%, 5%, 7%, 10% for 1x irradiation. After the treatment done, the mice's back skin will be taken for sunburn cell counting. Data were analyzed using Saphiro-wilk normality test and Levene variance test with each significance value of  $p > 0.05$ . One Way ANOVA comparative test, Post-hoc LSD further test, and Spearman's rho correlative test with each significance value  $p < 0.05$ .

**Results** — All data groups for comparative analysis are normally distributed in the Saphiro-wilk test ( $p > 0.05$ ) and homogeneous in the Levene test with a value of  $p = 0.436$  ( $p < 0.05$ ) after square root transformation. There is a significant difference in the mean number of sunburn cells in the One Way ANOVA test  $p = 0.00$  ( $p < 0.05$ ) between all groups, including the control, negative control, positive control, and treatment groups. LSD post-hoc test showing that the group with the most significant mean difference (16.20) was between the negative control group and treatment group 4 (X4) with  $p = 0.00$  ( $p < 0.05$ ). Data for correlation analysis are not normally distribute in the Saphiro-wilk test ( $p < 0.05$ ). There is a relationship between the dose of snail slime cream and the percentage of sunburn cells in the Spearman's rho test with  $p = 0.00$  ( $p < 0.05$ ) and the strength of the relationship between the dose of snail slime cream and the percentage of sunburn cells is very strong indicated by the Pearson Correlation ( $r$ ) = -0.900.

**Conclusion** — Snail slime cream effectively inhibits the formation of sunburn cells with the most effective dose in this study is the 10% dose.

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**Keywords:** UVB, Sunburn Cells, Snail Slime Cream