

**PENGARUH APLIKASI TOPIKAL GEL LENDIR BEKICOT KONSENTRASI 2.5%,
5% DAN 7.5% TERHADAP PENYEMBUHAN LUKA PASCA PENCABUTAN
GIGI PADA MARMOT (*Cavia cobaya*)**

INTISARI

Pencabutan gigi adalah proses pengambilan gigi dari tulang alveolar yang menimbulkan luka. Proses penyembuhan luka dapat dipercepat dengan pemberian obat topikal. Salah satu obat tradisional yang biasa dipakai masyarakat adalah lendir bekicot, karena mengandung *Acharin Sulfate* dan *Glycosaminoglycan* yang bersifat antibakteri dan antiinflamasi. Penelitian ini bertujuan untuk mengetahui pengaruh aplikasi topikal gel lendir bekicot konsentrasi 2.5%, 5% dan 7.5% terhadap penyembuhan luka pasca pencabutan gigi pada marmot (*Cavia cobaya*).

Penelitian ekperimental semu dilakukan terhadap 24 marmot, yang dibagi menjadi 4 kelompok. Kelompok pertama di beri aplikasi topikal *Povidone Iodine 10%* pada H0, kelompok lainnya masing-masing di beri gel lendir bekicot 2.5%, 5% dan 7.5% pada H+1 dan H+2 pasca pencabutan gigi insisivus kiri. Pengambilan foto standar dilakukan pada H0, H+3, H+5, H+7, H+10 dengan kamera *DSLR*. Pengukuran luas luka dilakukan pada foto dengan program *Skech-up 2016*. Skor inflamasi dinilai dengan membuat garis marginal pada jaringan luka kemudian dibagi menjadi 8 bagian. Bagian yang terdapat gambaran inflamasi diberi skor 1. Data dianalisis dengan *Kruskall Wallis* dan *Mann Whitney* pada tingkat signifikansi 5%.

Hasil penelitian menunjukkan bahwa pada tiap hari pengamatan setiap kelompok mengalami penurunan luas luka dan skor inflamasi. Kelompok 7,5% menunjukkan luas luka dan skor inflamasi terendah. Perbedaan luas luka kelompok 7,5% dengan kelompok kontrol dan 2,5% signifikan di tiap hari pengamatan. Perbedaan luas luka pada kelompok 5% dan kelompok 7,5% signifikan pada pengamatan H+3, H+5 dan H+7, tetapi pada H+10 tidak signifikan. Perbedaan skor inflamasi kelompok 7,5% dan kelompok kontrol adalah signifikan pada H+7 dan H+10. Disimpulkan bahwa aplikasi gel lendir bekicot 5% dan 7,5% dapat mempercepat penyembuhan luka pasca pencabutan gigi marmot dengan efek yang sama pada pengamatan hari ke 10.

Keyword : gel lendir bekicot, penyembuhan luka, perubahan warna jaringan, luas luka

THE EFFECT OF TOPICAL APPLICATION OF SNAIL MUCUS CONCENTRATIONS OF 2,5%, 5% AND 7,5% FOR POST TOOTH EXTRACTION WOUND HEALING IN GUINEA PIGS

ABSTRACT

Tooth extraction is the process of extracting tooth from the alveolar bone that causes wound. The wound healing process can be accelerated by topical medication. Snail mucus is one of the traditional medicine which commonly used by the people, because it has Acharin Sulfate and Glycosaminoglycan which are antibacterial and anti-inflammatory. This study aims to determine the effect of topical application of snail mucus gel concentrations of 2.5%, 5% and 7.5% on wound healing after tooth extraction in guinea pigs (*Cavia cobaya*).

Quasi-experimental research was conducted on 24 guinea pigs, which were divided into 4 groups. The first group was given topical application of Povidone Iodine 10% on H0, the other groups were given snail slime gel 2.5%, 5% and 7.5% on H + 1 and H + 2 after extraction of left incisors, respectively. Standard photo taking is done on H0, H + 3, H + 5, H + 7, H + 10 with a DSLR camera. Wound area measurements were taken on a photo using the 2016 Skech-up program. Inflammation scores were assessed by drawing marginal lines in the wound tissue and then dividing them into 8 sections. The section with inflammatory features was given a score of 1. Data were analyzed by Kruskal Wallis and Mann Whitney at a significance level of 5%.

The results showed that on each day of observation each group experienced a reduction in wound area and inflammation score. The 7.5% group showed the lowest wound area and the lowest inflammatory score. The difference in wound area was 7.5% for the control group and 2.5% was significant for each day of observation. The difference in wound area in the 5% group and the 7.5% group was significant in H + 3, H + 5 and H + 7 observations, but in H + 10 it was not significant. The difference in inflammation score of the 7.5% group and the control group was significant at H + 7 and H + 10. It was concluded that the application of 5% and 7.5% snail slime gel could accelerate wound healing after guinea pig's tooth extraction with the same effect on the 10th day observation. Keyword: snail mucus gel, wound healing, tissue discoloration, wound area