

INTISARI

Latar Belakang : Hidrogen peroksida 35% yang digunakan sebagai bahan bleaching memiliki efek negatif berupa luka jika terkena gingiva. Penelitian ini bertujuan mengetahui efektifitas gel ekstrak daun pepaya (*Carica Papaya L.*) konsentrasi 75% dalam mempercepat proses penyembuhan luka gingiva yang diakibatkan oleh hidrogen peroksida 35%.

Metode Penelitian : Desain penelitian eksperimental laboratoris *in vivo* pada tikus putih (*Rattus norvegicus*) galur *Sprague Dawley* jantan, sampel 33 ekor dan dibagi 3 kelompok dengan masing-masing drop out 2 sampel, hari ke-0 semua tikus diinduksi hidrogen peroksida 35% dengan cara pengolesan, selanjutnya kelompok I diberikenalog *in orabase*, kelompok II gel ekstrak dan kelompok III aquades. Perlakuan dilakukan setiap hari dan hari ke 1,3,5 dan 7 tikus diambil satu secara acak untuk pengukuran diameter luka dan dekapitulasi rahang. Selanjutnya dilakukan pengamatan jumlah sel makrofag dalam preparat. Data penelitian dianalisis menggunakan Uji normalitas *Saphiro Wilk* karena sampel kurang dari 50. Apabila data terdistribusi normal dilanjutkan dengan analisa anova satu jalur sebagai uji komparatif. Selanjutnya menggunakan uji *Least Significant Difference*.

Hasil : Data rata-rata diameter luka, kelompok I memiliki lebar diameter luka terkecil selanjutnya kelompok II lebih besar dan kelompok III. Untuk data jumlah sel makrofag jumlah rata-rata terbesar adalah kelompok III selanjutnya kelompok II dan kemudian kelompok I, jumlah sel makrofag terbanyak pada hari ke 1 dan ke 3. Uji normalitas *Sahphiro Wilk* semuanya signifikan, annova satu jalur semuanya signifikan, dan uji *LSD Mean Difference* tertinggi pada kelompok III yaitu sebesar 1,450.

Kesimpulan :gel ekstrak Daun Pepaya 75% dapat mempercepat proses penyembuhan luka ditinjau dari penurunan diameter luka dan jumlah sel makrofag.

Kata Kunci : Hidrogen peroksida, ekstrak daun pepaya

ABSTRACT

Background: 35% Hydrogen peroxide used as a material bleaching have negative effects such as wounds if exposed to gingiva. The aimed of this study is to determine the effectiveness of papaya gel extract (*Carica Papaya L.*) with 75% concentration in accelerate healing of gingival wounds that caused by 35% hydrogen peroxide.

Methods: This study was an *in vivo* laboratory experimental in 33 male strain Sprague Dawley rats (*Rattus norvegicus*). The samples were divided into 3 groups with each 2 samples drop out, at day 0 all rats induced by 35% hydrogen peroxide with a basting, here in after group I was given Kenalog in orabase, group II was given gel extract and group III was given distilled water. The treatment was done every day and in day 1,3,5 and 7 the rats were taken at random for measuring the diameter of the wound and recapitulation of the jaw. Furthermore, observe the number of macrophages in the preparations. The normality of data were analyzed with Shapiro Wilk because the sample is less than 50. If the data are normally distributed the test will followed by one way ANOVA as the comparative test and using the Least Significant Difference test.

Results: The average diameter of the wound for the first group have a smallest diameter, group 2 is wider and group 3. The average based on number of macrophage cells, group III have the most machropage cells, followed by group II and group I have least machropage cells, the largest number of macrophage cells is on day 1 and day 3. Saphiro Wilk and One Way Anova test show all data is significant and LSD test that have the highest Mean Difference is in group III in the amount of 1,450.

Conclusion: 75% papaya leaf extract gel can accelerate the wound healing process in terms of a reduction in the diameter of the wound and the amount of macrophage cells.

Keywords: Hydrogen peroxide, papaya leaf extract