

INTISARI

Latar Belakang : Salah satu efek samping dari Hidrogen peroksida 35% adalah menyebabkan inflamasi pada gingiva. Sel yang terkandung pada saat fase inflamasi adalah sel limfosit. Daun Pepaya mengandung senyawa aktif saponin, tanin, dan flavonoid. Kandungan senyawa aktif daun pepaya dapat berperan sebagai antiinflamasi dan mempercepat penyembuhan luka.

Tujuan Penelitian : Penelitian ini bertujuan untuk mengetahui efektifitas gel ekstrak daun pepaya terhadap penurunan jumlah sel limfosit dan diameter luka pada proses penyembuhan luka akibat bahan bleaching.

Metode Penelitian : Desain penelitian ini adalah eksperimental murni *in vivo*. Subjek pada penelitian ini menggunakan tikus jantan sebanyak 33 ekor. Tikus diberi perlakuan dengan Hidrogen Peroksida 35 % menggunakan microbrush. Dibagi menjadi tiga kelompok perlakuan yaitu kelompok I (*Kenalog*) sebagai kontrol positif, kelompok II (Gel ekstrak daun pepaya), kelompok III (*Aquades*) sebagai kontrol negatif. . Perlakuan dilakukan setiap hari dan hari ke 1,3,5 dan 7 tikus diambil satu secara acak untuk pengukuran diameter luka dan dekapitulasi rahang. Pembuatan preparat dengan perwarnaan *HE*. Dan dilakukan perhitungan jumlah sel limfosit. Analisa data menggunakan uji normalitas *Shapiro Wilk*, kemudian dilakukan uji hipotesis *One Way Anova*, dan uji lanjutan dengan uji *Least Significant Differences*.

Hasil : Didapatkan 2 data yaitu Diameter luka dan jumlah sel limfosit. Hasil uji normalitas *Shapiro Wilk* ($p\text{-value} > 0,05$), menunjukkan distribusi data yang normal. Hasil uji *One Way Anova* diperoleh nilai signifikansi 0,039 ($p\text{-value} < 0,05$), terdapat perbedaan jumlah sel limfosit diantara ketiga kelompok, hasil uji *Least Significant Differences* diperoleh jumlah sel limfosit signifikan pada kelompok II (Gel ekstrak daun pepaya 75%).

Kesimpulan : Pemberian gel ekstrak daun pepaya (*Carica Papaya L.*) konsentrasi 75% efektif terhadap penurunan jumlah sel limfosit dan diameter luka terhadap penyembuhan luka akibat bahan bleaching pada tikus (*Sprague Dawley*) jantan ($p < 0,05$).

Kata Kunci : Gel ekstrak daun pepaya, sel limfosit, Penyembuhan luka, hydrogen peroksida bahan bleaching.

ABSTRACT

Background : One side effect of the hydrogen peroxide 35% is causing inflammation of the gingiva . Cells contained in the phase of inflammation is lymphocyte cells . The Papaya leaves contains some active compound of saponin , tannins and flavonoids . The active compound of the papaya leaves can be as an anti-inflammatory substance and wound healing

Research Objectives : This research aims to determine the effectiveness of papaya leaves extract gel towards amount of lymphocyte cells and wound diameter in the process of wound healing causes by bleaching materials on male rats.

Research methods : The research design was purely experimental in vivo. The subject of this research was 33 male rats. The rats given the injury with Hydrogen Peroxide 35% using microbrush. The subject which were divided into three treatment groups. The first group is (kenalog) as a positive control, the second group (papaya leaves extract gel 75%), the third group is (Aquadex) as a negative control. 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. The preparat of tool was colored by HE. Furthermore, observe the number of lymphocytes in the preparations. Data analysis was using the Shapiro Wilk normality test, and the it was tested by using the hypothesis One Way Anova, and advanced testing with the Least Significant Differences.

Results : There are two results in this research which is wound diameter and the amount of lymphocytes cells . The Shapiro Wilk normality test results (p - value > 0.05), it indicates that the data has normal distribution of data . One Way Anova test results significance value of 0.039 (p - value < 0.05) , it means there is a differences in the number of lymphocytes among the three groups , the test results obtained Least Significant Differences lymphocyte cell counts significantly in group II (Gel papaya leaf extract 75 %)

Conclusion : The provision of papaya extract gel concentration of 75% effective to decrease the number of lymphocytes and the diameter of the wound in the process of wound healing causes by bleaching materials in male rats ($p < 0.05$) .

Keywords : papaya leaves extract gel ,lymphocyte cells, wound healing, hydrogen peroxide bleaching materials.