

ABSTRAK

Handayani, Octavia Dwi. 2017. **Pengaruh Gel Ekstrak Etanol Daun Sukun (*Artocarpus altilis*) Terhadap Jumlah Sel Neutrofil Pasca Gingivektomi Pada Tikus Putih (*Rattus norvegicus*)**. Skripsi, Program Studi Sarjana Kedokteran Gigi Fakultas Kedokteran Gigi Universitas Brawijaya : Malang. Pembimbing : (1) drg. Rudhanton, Sp. Perio (2) drg. Nenny Prasetyaningrum, M.Ked

Gingivektomi merupakan prosedur bedah untuk membuang jaringan gingiva yang mengalami pembesaran. Prosedur bedah mengakibatkan luka pasca gingivektomi. Pada penyembuhan luka terjadi proses inflamasi akut. Sel neutrofil berfungsi memfagositosis selama proses inflamasi akut. Daun sukun mengandung saponin dan flavonoid yang bekerja dengan cara menghambat enzim siklooksigenase dan lipooksigenase pada reaksi inflamasi sehingga migrasi sel radang akan menurun pada daerah radang. Penelitian ini dilakukan untuk mengetahui pengaruh gel ekstrak daun sukun (*Artocarpus altilis*) dengan konsentrasi 20% terhadap jumlah sel neutrofil pada proses inflamasi akut mukosa oral tikus putih (*Rattus norvegicus*) pasca gingivektomi. Metode pada penelitian ini adalah eksperimental murni menggunakan 24 tikus yang dibagi menjadi 6 kelompok dengan pengamatan sebanyak 3 *time series* yaitu hari 1, hari 3, dan hari 7. Kelompok kontrol dilakukan prosedur gingivektomi namun tidak diaplikasikan gel ekstrak daun sukun. Kelompok perlakuan dilakukan prosedur gingivektomi kemudian diaplikasikan gel ekstrak daun sukun konsentrasi 20%. Preparat dibuat dengan pewarnaan Hematoksilin-eosin. Jumlah neutrofil dihitung dalam 5 lapangan pandang dengan perbesaran mikroskop 400x. Hasil uji One-Way Anova menunjukkan pengaruh yang signifikan penggunaan gel ekstrak daun sukun terhadap jumlah neutrofil pada gingiva tikus putih (*Rattus norvegicus*) pasca gingivektomi dengan nilai ($p = 0,000$). Hasil uji Post-Hoc menunjukkan signifikansi antara kelompok kontrol dan perlakuan pada hari 1, hari 3, dan hari 7 dengan nilai ($p = 0,000$). Pada kelompok perlakuan terbentuk rata – rata jumlah neutrofil yang lebih sedikit daripada kelompok kontrol. Kesimpulan dari penelitian ini adalah terdapat pengaruh pemberian gel ekstrak daun sukun (*Artocarpus altilis*) dengan konsentrasi 20% terhadap penurunan jumlah sel neutrofil selama proses inflamasi akut pada luka pasca gingivektomi tikus putih (*Rattus norvegicus*)

Kata Kunci : Gel Ekstrak Daun Sukun (*Artocarpus altilis*), Neutrofil, Gingivektomi

ABSTRACT

Handayani, Octavia Dwi. 2017. **The Effect of Ethanol Extract Breadfruit Leaves (*Artocarpus altilis*) Gel to the Number of Neutrophil Cells in White Rat (*Rattus norvegicus*) Post Gingivectomy.** Essay, S1 School of Dental Medicine, Faculty of Dental Medicine, Brawijaya University : Malang. Supervisors : (1) drg. Rudhanton, Sp. Perio (2) drg. Nenny Prasetyaningrum, M.Ked

Gingivectomy is a surgical procedure to dispose of the enlargement gingival tissues. The surgical procedure resulted in a wound after gingivectomy. In the wound healing, acute inflammatory process occurs. Neutrophil cell functions to phagocytosing the wound during the acute inflammatory process. Breadfruit leaves contain saponins and flavonoids that work by inhibiting the cyclooxygenase and lipoxygenase enzyme on the inflammatory reaction so that the migration of inflammatory cells in the inflammation area decreases. This study was conducted to determine the effect of gel of breadfruit leaves (*Artocarpus altilis*) extract with a concentration of 20% against the neutrophil cell counts in the acute inflammatory process of the oral mucosa of white rat (*Rattus norvegicus*) after gingivectomy. The method in this research is purely experimental method using 24 rats divided into 6 groups with 3 total observation time series either day 1, day 3 and day 7. The control group were performed gingivectomy procedures but were not applied the gel of breadfruit leaves extract. The experimental group were performed gingivectomy procedure while then were applied gel of breadfruit leaves extract with concentration of 20%. The preparat is made by staining hematoxylin-eosin. The number of neutrophils were calculated in 5 fields of view with a microscope magnification 400 times. The results of One-Way ANOVA test showed a significant effect of the use of gel of breadfruit leaves extract on the number of neutrophils in the white rat (*Rattus norvegicus*) gingival after gingivectomy with value ($p = 0.000$). The result of Post-Hoc test showed the significance between control and experimental groups on day 1, day 3 and day 7 with value ($p = 0.000$). In the experimental group occurred that the average number of neutrophils were less than the control group. The conclusion of this study is that there is an effect of gel of breadfruit leaves (*Artocarpus altilis*) extract with a concentration of 20% on the decrease of neutrophil cells counts during an acute inflammatory process in the wound after the gingivectomy process towards white rat (*Rattus norvegicus*).

Keywords: Gel of Breadfruit leaves (*Artocarpus altilis*) extract, Neutrophils, Gingivectomy

