

INTISARI

Kulit batang jambu mete memiliki banyak manfaat, salah satu sebagai antiinflamasi. Kandungan yang terdapat didalam kulit batang jambu mete sebagai antiinflamasi yaitu senyawa alkaloid, flavonoid, tannin, saponin dan getah (asam anakardat dan kardol). Tujuan penelitian ini untuk mengetahui pengaruh konsentrasi ekstrak kulit batang jambu mete sebagai bahan kumur terhadap proliferasi sel fibroblas dalam proses penyembuhan luka.

Penelitian dilakukan terhadap 48 marmut, dan tiap kelompok terdiri dari 4 marmut. Ekstrak kulit batang jambu mete didapatkan dengan cara ekstraksi menggunakan teknik maserasi. Ekstrak kulit batang jambu mete dalam bahan kumur dibuat dengan konsentrasi 3%, 5% dan 7% sebanyak 10 mL dari setiap konsentrasi. Marmut didekapitasi setelah perlakuan 3 hari, 7 hari, dan 14 hari untuk melihat sel fibroblas. Data dianalisis menggunakan *two way ANOVA* dilanjutkan dengan uji LSD

Hasil penelitian menunjukkan rerata dan simpangan baku proliferasi sel fibroblas pada 3% hari ke-3 $31,50 \pm 3,69$; ke-7 $116,75 \pm 2,75$; ke-14 $70,00 \pm 2,16$, pada 5% hari ke-3 $44,25 \pm 5,62$; ke-7 $148,25 \pm 4,79$; ke-14 $65,25 \pm 3,30$, pada 7% hari ke-3 $55,00 \pm 5,59$; ke-7 $180,75 \pm 3,569$; ke-14 $61,50 \pm 2,63$. Uji *two way ANOVA* menunjukkan antar konsentrasi, antar hari, antar konsentrasi dan hari berpengaruh bermakna terhadap proliferasi sel fibroblas. Uji LSD diketahui terdapat perbedaan jumlah sel fibroblas yang signifikan antar kelompok konsentrasi, kelompok hari dan terdapat interaksi antara konsentrasi dan hari. Kesimpulan penelitian ini adalah konsentrasi dan hari memiliki pengaruh bermakna terhadap proliferasi sel fibroblas, adanya interaksi antara konsentrasi dan hari memiliki pengaruh bermakna terhadap proliferasi sel fibroblas dan pada hari ke-3 sampai hari ke-7 proliferasi sel fibroblas mengalami peningkatan, sedangkan pada hari ke-7 sampai hari ke-14 proliferasi sel fibroblas mengalami penurunan.

Kata kunci: fibroblas, penyembuhan luka, kulit batang jambu mete.

ABSTRACT

Cashew stem bark had many benefit, one of them was anti-inflammatory effect. Anti-inflammatory agent consisted of alkaloid compounds, flavonoids, tannins, saponins and sap (anakardat acid and kardol). The purpose of this research was to know the effect of cashew stem bark extract concentration in mouthwash to the proliferation of fibroblasts in the wound healing process.

The reaserch was involved 48 marmots, and each group consisted of 4 marmots. The extract of cashew stem bark was obtained by maceration technique. Cashew stem bark extract in mouthwash was made by concentration of 3%, 5% and 7%, as much as 10 mL of each concentration. Marmots was sacrificed on 3rd, 7th, and 14th days after the injury to determine fibroblasts. Data were analyzed using two way ANOVA followed by LSD test.

The results showed that the mean and standard deviation of fibroblast cell proliferation was at 3% on the 3th day 31.50 ± 3.69 ; 7th day 116.75 ± 2.75 , 14th day 70.00 ± 2.16 , at 5 %, 3th day 44.25 ± 5.62 ; 7th day 148.25 ± 4.79 ; 14th day 65.25 ± 3.30 , at 7%, 3th day 55.00 ± 5.59 ; 7th day 180.75 ± 3.569 ; 14th day 61.50 ± 2.63 . Two-way ANOVA test showed between concentration, time, and between concentration and time was significantly effect of the fibroblast cell proliferation. LSD test showed that there were significant fibroblast cell proliferation differences between concentration, time and there were interaction between consentration and time. Conclusions of this reaserch was the consentration and time had significant effect on proliferation of fibroblasts, the interaction between concentration and time had significant effect of the proliferation fibroblasts, on 3th day until 7th day fibroblasts cell proliferation was increased, but on 7th day to 14th day fibroblast cell proliferation was decreased.

Keyword: fibroblast, wound healing, cashew stem bark