



INTISARI

Migrasi leukosit merupakan tahapan penting inflamasi sehingga penghambatan migrasi leukosit dapat digunakan sebagai terapi anti-inflamasi untuk mengatasi penyakit inflamasi. Siklovalon dan kurkumin mempunyai aktivitas penghambatan NF- κ B. NF- κ B merupakan regulator yang meregulasi protein-protein pro-inflamasi yang terlibat dalam bermigrasinya leukosit.

Penelitian ini bertujuan untuk mengetahui aktivitas dan efektivitas anti-inflamasi siklovalon dan kurkumin melalui penghambatan migrasi leukosit. Mencit jantan galur *Balb/C* dikelompokkan menjadi 10 kelompok (n=5). Siklovalon (5, 10, dan 20 mg/KgBB i.p), kurkumin (5, 10, dan 20 mg/KgBB i.p.), DMSO 10%, dan indometasin (10 mg/KgBB i.p.) diberikan 30 menit sebelum induksi inflamasi oleh tioglikolat 4% i.p. Perhitungan jumlah sel leukosit dilakukan 6 jam setelah induksi inflamasi. Jumlah sel leukosit dihitung dengan menggunakan *haemocytometer*. Data jumlah sel leukosit dianalisis dengan menggunakan uji Kruskal-Wallis dan uji Mann-Whitney.

Hasil penelitian menunjukkan penurunan bermakna (sig. < 0,05) jumlah sel leukosit siklovalon dan kurkumin dibandingkan dengan tioglikolat 4% sehingga siklovalon dan kurkumin mempunyai aktivitas anti-inflamasi melalui penghambatan migrasi leukosit, tetapi jumlah sel leukosit siklovalon tidak ada perbedaan bermakna (sig. > 0,05) dibandingkan dengan kurkumin sehingga efek anti-inflamasi siklovalon tidak lebih baik dibandingkan dengan kurkumin.

Kata kunci: migrasi leukosit, anti-inflamasi, siklovalon, kurkumin



ABSTRACT

Leukocyte migration is important step of inflammation do leukocyte migration inhibition can be used as anti-inflammation therapy to deal with inflammation disease. Cyclovalone and curcumin has NF- κ B inhibition activity. NF- κ B is regulator that regulates pro-inflammation proteins involved in leukocyte migration.

This research was intended to identify anti-inflammation activity and effectiveness of cyclovalone and curcumin through leukocyte migration inhibition. Male mice of *Balb/C* strand were assigned into 10 groups (n=5). Cyclovalone (5, 10, and 20 mg/kg i.p.), curcumin (5,10,20 mg/kg i.p.), DMSO 10% and indomethacin (10 mg/kg i.p.) were administered 30 minutes before inflammation induction with thioglycolate 4% i.p. calculation of leukocyte cell was done 6 hours after inflammation induction. Leukocyte cell was calculated using haemocytometer. Data of leukocyte cell was analyzed using Kruskal-Wallis test and Mann-Whitney test.

Result of the research indicated significantly (sig. < 0,05) decreased leukocyte cell of cyclovalone and curcumin groups compared with thioglycolate 4% group. So, cyclovalone and curcumin has anti-inflammation activity through leukocyte migration inhibition, but leukocyte cell count of cyclovalone group is not significantly (sig. > 0,05) different from curcumin group so anti-inflammation effect of cyclovalone is not better than curcumin.

Keywords: leukocyte migration, anti-inflammation, cyclovalone, curcumin