

INTISARI

Stres dan kesehatan telah terbukti memiliki keterkaitan. Stres berperan dalam modulasi pelepasan hormon kortisol dan katekolamin oleh sistem saraf pusat yang mempengaruhi fungsi sel termasuk produksi mediator inflamasi. Seiring dengan meningkatnya kejadian stres maka akan berpengaruh juga terhadap respon inflamasi di dalam tubuh. Dengan demikian, daya anti-inflamasi suatu obat anti-inflamasi yang terpengaruhi stres tersebut berpengaruh terhadap progresivitas penyembuhan pasien. Penelitian ini bertujuan mengetahui pengaruh stres terhadap daya anti inflamasi kalium diklofenak.

Penelitian ini merupakan penelitian eksperimental murni dengan rancangan acak pola searah. Metode perlakuan stres menggunakan *restraint test* dan metode uji daya anti-inflamasi menggunakan metode induksi edema pada kaki hewan uji dengan suspensi karagenin 1%. Dua puluh delapan ekor mencit betina, umur 2-3 bulan, berat badan 20-30 g dibagi dalam 4 kelompok, yaitu kelompok karagenin, kontrol negatif, kontrol positif, kelompok perlakuan masing-masing kelompok terdiri dari 7 ekor mencit. Data yang diperoleh berupa berat udem kaki mencit yang kemudian dilakukan perhitungan daya anti inflamasi menurut metode Langford dkk., distribusi data diketahui dengan uji *Kolmogorov-Smirnov*, dilanjutkan dengan uji homogenitas. Hasilnya dianalisis dengan metode statistik ANOVA dengan tingkat kepercayaan 95%.

Hasil penelitian menunjukkan bahwa stres tidak menurunkan secara signifikan daya anti-inflamasi kalium diklofenak. Persen (%) daya anti-inflamasi kelompok aquades, diklofenak dengan perlakuan stres, dan diklofenak tanpa stres berturut-turut sebesar 13,27%, 21,14%, dan 33,60%.

Kata kunci : daya anti-inflamasi, stres, kalium diklofenak

ABSTRACT

Stress and health had proven that had an association. Stress had a role in modulated releaasing cortisol and cathecolamine from the central nervous system that affect the cell function include peroduction of inflammation mediator.As increasing stres there is also increasing in releasing the response of inflammatory in the body so there was a need to increase the dose of anti inflammatory drugs. The aim of research was to know the effect of stress to the diclofenac potassium anti-inflammatory effect.

The experimental study was conducted according to one way statistic of randomized design. The method used for stress was restraint test and for anti-inflammatory effect of sodium diclofenac was performed by inducing oedema on test animal paw with subplantar injection of 1% carageenan suspension. Twenty eight female mice (with) weighing 20-30 g (2-3 months) consists of 4 groups and each of the groups were consist of 7 mice. The result were data at mice paw's weight that were used to calculate the percentage of anti-inflammatory effect according to the Langford, et al. then using one sample *Kolmogorov-Smirnov* test for the distribution and continued with homogeneity test. The result would be analyzed with using One Way ANOVA analysis with 95% significance level.

The result showed stress had no decreased the anti-inflammatory effect of diclofenac potassium significantly. The percentage of anti inflammatory effect of aquadest was 13,27%, diclofenac treatment with restraint test was 21,14%, diclofenac treatment without restraint test was 33,60%.

Key words : Anti-inflammatory effect, stress, diclofenac potassium