ABSTRACT

Recently there has been a tendency to use alternative therapies because the conventional medication is expensive, and sometimes it is not effective.

Along with the improvement of medical technology particularly in the pain reduction, the pharmacist develops many analgesic medicines. These medicines have been widely used in the community and the use of the medicines must be controlled; otherwise they will cause negative effects.

The Javanese have many traditional therapies. One of them is kerokan, which is believed to be a practical, cheap, rational, effective, and approved therapy. This therapy is applied by rubbing a blunt thing repeatedly on the skin of back, neck, and chest with sly oil. Many people, including young and adult people use this therapy. Kerokan is used for the common cold therapy. Due to the vast of using kerokan therapy and its importance as the heritance of culture that should be preserved, it is necessary to conduct research on the advantages of this therapy.

The aim of this research is to observe the mechanism of myalgia reduction after kerokan therapy. The special aim is to prove that kerokan therapy causes the increase and decrease in the inflammation mediators: the IL-1β, CRQ, C3, and β-endorphin levels increase and the PGE2 level decreases.

This is an experimental research with a randomized pre test-post test control group design. The research was done at Padma clinic. The number of samples was 38 patients and they were divided into two groups; 19 patients were included in the treatment group and the rest (19 patients) were included in the control group. The research employed statistics tests which included the Kolmogorov-Smirnov test, t parametric test, Mann-Whitney nonparametric test, and correlation test at the significance level of 5%.

Based on the results of the analysis, the conclusions are drawn as follows: 1) the IL-1β, CRQ and β-endorphin levels after kerokan tend to increase, while the C3 and PGE2 levels after kerokan tend to decrease; 2) there is a significant difference on the PGE2 level as well as β-the endorphin level between the treatment group and the control group; and 3) there is a significantly negative correlation between the β-endorphin level and the PGE2 level in the treatment group. If the β-endorphin level increases, then the PGE2 level decreases, and vice versa.

Key words: Kerokan, myalgia, inflammation mediators.