Pengaruh Penjaruman Titik Akupunktur Feishu (BL 13) dan Zusanli (ST 36) Terhadap Jumlah Limfosit CD4+ Pada Model Tikus Putih Asma

The Effect of Needling at Feishu (BL13) and Zusanli (ST36) Acupoints on CD4+ Lymphocyte Counts in Asthmatic Rat Model

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ABSTRACT

Background. Asthma prevalence is increasing in developing and developed countries. CD4+ Th2 Cell and its product play an important role in asthma pathogenesis. This study examined the effect of needling at Feishu (BL13) and of Zusanli (ST36) acupoints in decreasing CD4+ lymphocyte counts in asthmatic rat model.

Methods. This was a randomized-controlled laboratory trial with a sample of 27 white Spargue Dawley rats. The sample was divided into three groups by randomization: a control group (K) not given a treatment, treatment group 1 (PI) exposed with ovalbumin (OVA), and treatment group II (PII) exposed with OVA and acupuncture. OVA were given by intraperitoneal on days 1 to 14, followed with inhaled OVA on days 21, 23, 25, 27, and 29. Acupuncture was provided at Feishu (BL13) and Zusanli (ST36) points for 10 days, starting on day 21 to 30. Continuous wave electro-stimulation at 2 Hz frequency was given for 15 minutes, with its intensity varied to induce muscle contractions around needling area. The white rats were killed on day 31 by neck dislocation. The lungs were stained with immune histochemistry for histologic examination. The data were analyzed using One-way Anova and Post Hoc Test.

Results. One-way Anova showed statistically significant difference in CD4+ lymphocyte counts among groups (p<0.001).

Conclusion. Needling at Feishu (BL13) and Zusanli (ST36) acupoints decreases CD4+ lymphocyte counts significantly at treatment group II. But this decrease does not reach CD4+ lymphocyte counts as it is in the control group.

Keywords: acupuncture, CD4+ lymphocyte, asthma.