

# **Effect of acupuncture on the pain of patients with acute low back pain: A randomized double-blind clinical trial study**

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## **Abstract:**

**Introduction:** Low back pain is one of the most common causes of daily activity limitation and functional disabilities that affect a large number of people in the community. Due to the ineffectiveness of oral analgesics in relieving this type of pain and the need for their long-term use, which has its own side effects, the present study investigated the supplementary effect of acupuncture on pain in patients with acute back pain referred to the emergency department.

**Materials and Methods:** The present study is a randomized clinical trial that was performed on 80 patients with acute low back pain. Patients were randomly assigned to acupuncture and ibuprofen groups (n =40 in each group). The rate of pain reduction of these two treatments was measured with the pain numeric rating scale at the time of arrival, 2 and 24 hours later in the acupuncture group and the moment of arrival and two weeks later in the control group.

**Results:** The mean age of patients in the acupuncture group was  $35.61 \pm 9.13$  years and in the ibuprofen group was  $37.55 \pm 7.96$  years. The mean change of pain in the two groups of acupuncture and ibuprofen was statistically significant. The mean pain reduction in the acupuncture group was  $6.95 \pm 0.21$  and in the ibuprofen group was  $1.37 \pm 0.21$  ( $P=0.001$ ). The mean trend of pain change in the acupuncture group at the beginning of the study and two hours and one day after acupuncture was statistically significant ( $P=0.001$ ). The mean trend of pain change in ibuprofen group was statistically significant at the beginning of the study and two weeks after taking the drug. The mean pain decreased after two weeks of drug administration compared to the before drug administration ( $P=0.001$ ).

**Conclusion:** Acupuncture along with ibuprofen drug therapy has been more effective than ibuprofen therapy alone and has resulted in a better response to treatment and reduced pain in the studied patients. Therefore, acupuncture is a simple and uncomplicated procedure and also effective in reducing pain in patients with acute low back pain, which can be suggested as a complementary treatment for low back pain, after confirmation by further studies.

**Keywords:** Acupuncture, Ibuprofen, Pain, Low Back Pain