

EFFECT OF ANATOMICAL ACUPUNCTURE VERSUS ANATOMICAL
PLUS SCALP ACUPUNCTURE ON THE VOLUNTARY MOVEMENT
OF EXTENSION AND FLEXION OF THE DYSFUNCTIONAL
ARM IN POST-STROKE PATIENTS

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ABSTRACT

Problem: This study investigated the potential effect on range of motion between the sole use of anatomical acupuncture versus anatomical plus scalp acupuncture on the voluntary movement of extension and flexion of the dysfunctional arm caused by stroke.

Method: To evaluate the potential efficacy of anatomical acupuncture versus anatomical plus scalp acupuncture's effect on the dysfunctional arm caused by stroke, a single-blinded clinical trial was used. The outcome was recorded twice per week for 3 months. The research design was a multiple group with a pretest and posttest. Group-A had six patients who were measured for extension and flexion of affected elbow before having acupuncture. The pretest was labeled as "Before treatment" or (Bt₁) then retest (Bt₂). These patients received anatomical acupuncture that was labeled as X_a. Then, the measurement of extension and flexion was checked again immediately after the treatment. This was the posttest stage and labeled as "After treatment" or (At₁) then retest (At₂). Group-B also had six patients. The patients in this group were also checked with a pretest as "Before treatment" or (Bt₁) then retest (Bt₂) and a posttest as "After treatment" or (At₁) then retest (At₂). However, these patients received anatomical plus scalp acupuncture treatment that is labeled as X_{AS}.

The patients were divided in two equal groups. Group-A patients received two acupuncture treatments per week with the anatomical group acupuncture points LI-15,

LI-11, SJ-8, LI-4, Baxie 2 and 3 on the affected upper limb and St-36, GB-34, GB-39 (anterior), Sp-6, Liv-3 on the affected lower limb. Group-B patients received the same anatomical acupuncture points as Group-A plus scalp acupuncture for upper limb.

Scalp acupuncture consisted of needling the upper 2/5 and 3/5 of the Motor line on the opposite side of the affected limb. The active voluntary extension and/or flexion of the dysfunctional arm will be measured before having acupuncture and immediately after needles are withdrawn.

Results: Overall, in the course of the 3-month study, there was significant improvement of extension and flexion in Group-A and Group-B. This is supported by the statistical results of the mean, *t*-test, *F* values and *p* values for extension and flexion in both groups. However, the comparison of the difference of extension and flexion in Group-A to Group-B was not statistically significant.

In additional findings, the gender data showed a significant improvement in the extension and flexion of both male and female groups after 24 treatments in 3 months. However, the difference of extension and flexion between male and female groups was not statistically significant. Similar to the gender differences, the sides of limbs' data showed a significant improvement in the extension and flexion of both left and right sides. However, there was not a statistically significant difference in either side.

Key Words: Acupuncture, Stroke, Range of Motion, Scalp Needling, Anatomical Acupuncture.