

Efficacy and Effectiveness of Acupuncture in Patients with Chronic Low Back Pain

- The Acupuncture in Routine Care Study (ARC) and the Acupuncture Randomised Trial (ART)



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Objective: we evaluated for acupuncture 1) the effectiveness (in addition to routine medical care) and 2) the efficacy compared to minimal acupuncture and a waiting list control

Material and Methods: 1) In ARC patients were randomly allocated to receive up to 15 acupuncture sessions over three months or to a control group receiving no acupuncture. Patients who declined randomization were followed in a prospective observational study. All study participants were allowed to receive additional conventional medical care. 2) In ART patients were randomised to treatment with semi-standardised acupuncture, minimal acupuncture (superficial needling at non acupuncture points) or to waiting list control. Both acupuncture groups received 12 sessions over 8 weeks.

Results: 1) Of 11,630 patients (age 52.9 ± 13.7 years; 59% female), 3093 were randomized. At 3 months, back function improved by 12.1 ± 0.4 (mean SE) to 74.5 ± 0.4 points in the acupuncture group and by 2.7 ± 0.4 to 65.1 ± 0.4 points among controls (difference 9.4 [95% CI 8.3, 10.5]; $p < .001$). 2) A total of 298 patients (67.8% female; age 59.9 years) were included. Between baseline and week 8, pain intensity decreased by 28.7 ± 30.3 mm in the acupuncture group, 23.6 ± 31.0 mm in the minimal acupuncture group, and 6.9 ± 22.0 mm in the waiting list group. The difference for the acupuncture vs minimal acupuncture group was 5.1 mm (95% CI -3.7 to 13.9; $p = .26$), and the difference for the acupuncture vs waiting list group was 21.7 mm (13.9-30.0; $p < .001$).

Conclusion: Acupuncture was superior to waiting list control, but not to minimal acupuncture. Routine medical care plus acupuncture was more effective than routine care alone.

Keywords: Acupuncture, low back pain, randomized controlled trial, efficacy, effectiveness