

GERAC- The German Acupuncture Trial for Low Back Pain

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Background: In the year 2000 the Joint Federal Committee of Physicians and Health Insurance Plans in Germany initiated a project comparing the effectiveness of acupuncture to guideline-oriented conventional therapy for chronic pain. Within this project four large, randomized studies were conducted as part of the "German Acupuncture Trials" (GERAC) testing acupuncture against sham acupuncture and guideline standard therapy in the treatment of migraine, tension headache, gonarthrosis of the knee and low back pain (1, 2). The GERAC-Trial which evaluated chronic low back pain will be discussed in this paper (3, 4).

Methods: All GERAC-Trials were conducted as patient- and observer-blinded randomized controlled trials. The low back pain trial involved 340 outpatient practices in Germany, including 1162 patients with a history of chronic low back pain for a mean of 8 years. Patients underwent verum acupuncture (n=387) according to principles of traditional Chinese medicine or sham acupuncture (n=387) consisting of superficial needling at nonacupuncture points or conventional therapy, a combination of drugs, physical therapy, and exercise (n=388). Five additional sessions were offered to patients who had a partial response to treatment. Primary outcome was response after 6 months, defined as 33% improvement or better on 3 pain-related items on the Von Korff Chronic Pain Grade Scale questionnaire or 12% improvement or better on the back-specific Hanover Functional Ability Questionnaire.

Results: 10 to 15 acupuncture sessions, verum as well as sham, alleviated pain more effectively than conventional therapy. At 6 months, response rate was 47.6% in the verum acupuncture group, 44.2% in the sham acupuncture group, and 27.4% in the conventional therapy group. Differences between verum vs sham was 3.4% (95% confidence interval, -3.7% to 10.3%; P=0.39) between verum vs conventional therapy was 20.2% (95% confidence interval, 13.4% to 26.7%; P<0.001) and between sham vs conventional therapy was 16.8% (95% confidence interval, 10.1% to 23.4%; P<0.001.)

Conclusions: Body needle acupuncture is an effective method to improve chronic low back pain for at least 6 months. Effectiveness of acupuncture, either verum or sham, was almost twice that of conventional therapy. On the basis of these results, acupuncture is now recognized within the German health service. However, the significance of the specific placement of the acupuncture needles strictly according to the rules of Traditional Chinese Medicine remains unexplained.