

## **Study: Acupuncture Better than Massage for Chronic Neck Pain**

### **Researchers Find "Clear Clinical Advantages" in Reducing Pain and Improving Motion**

By Michael Devitt

For most people, a quick visit to a massage therapist has been traditionally considered the best way to provide temporary relief of chronic neck pain.

The results of a randomized trial of neck pain patients published in a recent issue of the *British Medical Journal*, however, appear to suggest otherwise. According to a team of German and Swedish researchers, acupuncture provides greater short-term pain relief and increases range of motion better than traditional massage techniques.

"Our study shows that acupuncture can be an effective treatment for chronic neck pain, if the objective is to relieve pain and to improve mobility of the cervical spine," said Dr. Dominik Irnick of Ludwig-Maximilians University in Germany, one of three settings in which the trial was conducted.

In the study, 177 patients with chronic neck pain were randomly assigned to an acupuncture, massage or placebo group. Patients in the acupuncture group were treated at local, remote and ear acupoints, along with myofascial trigger points. The most commonly used points were SI3; UB10; UB60; Liv3; GB20; GB34; TE5; and the "cervical spine" ear point. In the massage group, patients were treated with a variety of Western techniques, including effleurage; petrissage; friction; tapotement and vibration. In the placebo group, sham laser acupuncture was performed using an inactivated laser pen on the same points as patients in the acupuncture group.

A blinded observer assessed the effectiveness of the treatments at six episodes during the course of care: at baseline; immediately after the first treatment; three days after the first treatment; immediately after the last treatment; one week after the last treatment; and three months after treatment. Researchers used a 100-point visual analogue scale to measure the amount of pain a patient suffered related to head movement, along with range of motion and tolerance to pressure. Spontaneous pain, motion-related pain and global pain were also documented, and a survey was administered to each patient to assess their quality of life.

## Results

Individuals treated with acupuncture reported greater reductions in pain both immediately after the first and last treatments, and one week after the last treatment, than those treated with massage. Patients in the acupuncture group improved an average of 24.22 points on pain related to motion one week after treatment, compared to only 7.89 points for massage patients. These differences were even more distinct among patients with myofascial pain syndrome (a condition characterized by muscle pain in specific areas of the neck that may be caused by physical or emotional tension) and patients who reported pain lasting more than five years.

<b>Table I: Improvement of pain related to motion one week after treatment compared with baseline measurements.</b>	
<b>Patient Group</b>	<b>Mean improvement on visual analogue scale</b>
<b>All participants</b>	
Acupuncture (n = 51)	24.22 points
Massage (n = 57)	7.89
<b>Patients with myofascial pain syndrome</b>	
Acupuncture (n=34)	30.05 points
Massage (n=43)	7.23
<b>Patients with pain &gt;5 years</b>	
Acupuncture (n=23)	31.87 points
Massage (n=23)	13.52

Similar results were seen in related measurements. For example, in assessments taken one week after the last treatment, over half of those treated with acupuncture (29/51) reported an improvement of more than 50% in pain related to motion, compared to only 32% of patients treated with massage and less than 25% of patients in the sham acupuncture group. The researchers also found that "significantly more patients in the

acupuncture group considered their pain (spontaneous, motion-related) and global complaints improved" compared to patients given massage, with some of these effects lasting as long as three months after treatment was performed.

<b>Table II: Outcomes in chronic neck pain patients, acupuncture vs. massage.</b>		
<b>Measurement</b>	<b>Acupuncture</b>	<b>Massage</b>
<b>Increased range of motion (in degrees)</b>		
Immediately after last treatment	19.6	6.2
One week after last treatment	19.8	5.1
Three months after treatment	8.9	5.5
<b>Pain related to direction (improvement on visual analogue scale, 0-100 points)</b>		
Immediately after last treatment	16.9	5.6
One week after last treatment	17.3	3.1
Three months after treatment	15.0	8.1
<b>Improvement in instances of spontaneous pain</b>		
One week after last treatment	35/51 (69%)	28/56 (50%)
Three months after treatment	33/47 (70%)	25/57 (44%)
<b>Improvement in instances of global pain</b>		
One week after last treatment	46/52 (88%)	32/58 (55%)
Three months after treatment	39/48 (81%)	32/57 (56%)

The authors of the study were rather forthright in their praise of acupuncture. "Our results show that acupuncture is a safe form of treatment for people with chronic neck pain, and offers clear clinical advantages over conventional massage in the reduction of pain and improvement of mobility," they wrote. In particular, it was suggested that acupuncture could be beneficial in treating patients with myofascial pain syndrome, which is estimated to be present in up to 90% of people with chronic neck pain and can be easily recognized through a patient's case history or a detailed physical exam.

The scientists were less kind in their opinion of massage therapy. Even though it is one of the most common treatments for chronic neck pain - in fact, 77% of the study participants had used massage for pain relief before taking part in the trial - the authors concluded that "conventional massage had only a weak effect" in treating the condition effectively.

Some concerns were raised because the number of treatments (five) given was relatively small, and that they were delivered in a short amount of time. The scientists explained this issue by stating that they "did not want to treat patients with chronic pain with placebo for longer (than five sessions) for ethical reasons." They also recommended that future research be conducted to determine the optimum number of treatments for the management of these patients.

"Acupuncture can be a safe form of treatment for patients with chronic neck pain if the objective is to obtain relief from pain related to motion and to improve cervical mobility," the researchers concluded. "As neck pain may be a chronic condition with considerable socioeconomic impact, single forms of treatment may be inadequate, and acupuncture merits consideration."

### *References*

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