

True, Sham Acupuncture Effective for Back Pain

BY MARY ANN MOON
Contributing Writer

True acupuncture and sham acupuncture both were much more effective against chronic low-back pain than was conventional treatment in a large clinical trial comparing the three approaches.

Almost half the subjects who received either real or sham acupuncture for 6 months showed clinically relevant improvement in pain intensity or back-specific disability, compared with only one-fourth of the subjects who received a variety of conventional therapies, investigators in the German Acupuncture (GERAC) Trials reported. (See box.)

"To our knowledge, [this] study is the largest and most rigorous trial to investigate the efficacy of verum acupuncture for chronic low-back pain compared with sham acupuncture and guideline-based conventional therapy. The study yielded several surprising results," said Dr. Michael Haake of the University of Regensburg, Bad Abbach, Germany, and his associates.

The subjects were 1,162 adults with

chronic low-back pain who were randomized to conventional treatment or real or sham acupuncture administered by physicians at 340 outpatient practices. The study physicians belonged to various medical specialties, had acquired at least 140 hours of acupuncture training, and had practiced acupuncture for a median of 8 years.

Both types of acupuncture involved at least 10 30-minute sessions, usually twice per week, plus additional sessions if the subjects experienced a 10%-50% reduction in pain intensity. The two treatments were identical, except that the sham procedure avoided all known acupuncture points or meridians and involved only superficial insertion of the needles, without any manual stimulation. Subjects were unable to distinguish any difference.

Conventional therapies included at least ten 30-minute sessions with a physician or physiotherapist. Treating physicians were free to administer any combination of techniques they deemed useful, including physiotherapy, massage, heat therapy, electrotherapy, injections, analgesics, anti-inflammatory agents, yoga, hydrojet treatment, exercise, and patient

education about managing back pain.

True acupuncture and sham acupuncture were equally effective, as well as more effective than conventional therapies, in relieving pain, improving function, and improving quality of life. All the improvements were significant and persisted long after treatment was completed.

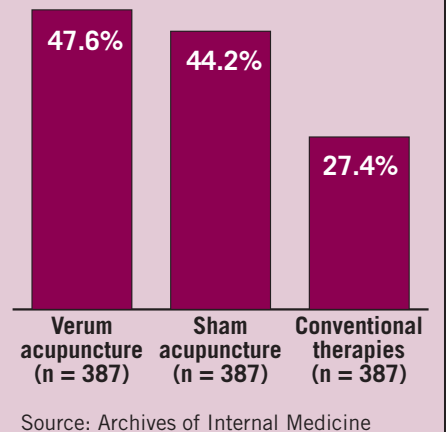
"While all randomized trials and meta-analyses to date have failed to show a clear advantage of acupuncture over conventional therapy for chronic low-back pain, our findings demonstrate significant superiority," the investigators said (*Arch. Intern. Med.* 2007;167:1892-8).

Largely on the basis of these results, the German Federal Joint Committee of Physicians and Health Insurance Plans—an agency similar to the National Institutes of Health—made acupuncture for low-back pain an insured benefit in that country.

The investigators' finding on sham acupuncture "forces us to question the underlying action mechanism of acupuncture and to ask whether the emphasis placed on learning the traditional Chinese acupuncture points may be superfluous," Dr. Haake and his associates added.

"The superiority of both forms of acupuncture suggests a common underlying mechanism that may act on pain generation, transmission of pain signals, or processing of pain signals by the central nervous system and that is stronger than the action mechanism of conventional therapy," they said. ■

Response Rates at 6 Months For Chronic Low-Back Pain



Inadequate Levels of Vitamin D Might Play Role in Chronic Pain

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — In what may be the first study of the prevalence of vitamin D inadequacy in patients seeking treatment for chronic pain, those who were on opioids used significantly higher doses and had been taking opioids significantly longer if they had vitamin D inadequacy than if they had adequate vitamin D levels, Dr. W. Michael Hooten reported at the annual meeting of the American Society of Anesthesiologists.

Inadequate levels of vitamin D were detected in 26% of 267 patients admitted to a multidisciplinary pain rehabilitation center at a tertiary referral medical center from February through December of 2006. Of the 140 patients who were using opioids, 27% had inad-

equated levels of vitamin D, Dr. Hooten of the Mayo Clinic, Rochester, Minn., and his associates reported in a poster presentation.

"Vitamin D inadequacy may represent an underrecognized source of nociception and impaired neuromuscular functioning among patients with chronic pain," he said.

In previous studies, inadequate levels of vitamin D have been associated with medication-refractory musculoskeletal pain and neuromuscular dysfunction.

In the current retrospective study, patients underwent vitamin D testing at admission, were questioned about opioid use, and completed the Short Form-36 Health Status Questionnaire (SF-36).

Serum 25-hydroxyvitamin D levels of 20 ng/mL or higher were considered adequate, and levels below 20 ng/mL were considered inadequate.

Both the adequate and inadequate vitamin D groups were nearly evenly split between opioid users and nonusers. Among 69 patients with vitamin D inadequacy, 38 were using opioids, and 31 were not. Among 198 patients with adequate vitamin D, 102 were using opioids and 96 were not.

Patients taking opioids used a mean morphine equivalent dose of 134 mg/day in the subgroup with vitamin D inadequacy and 70 mg/day in the subgroup with adequate vitamin D. Opioid users with inadequate vitamin D had been taking the medications for a mean of 71 months, compared with 44 months for opioid users with sufficient vitamin D.

The opioid users with inadequate vitamin D reported significantly worse health perceptions and physical functioning on the SF-36. Scores did not differ significantly between the vitamin D groups for bodily pain or "role-emotional." ■

Rise in Methadone Use Spurs Emergency Visits, Deaths

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — The increasing use of methadone for pain management has been shadowed by steep increases in the number of emergency department visits and deaths associated with the drug, according to an analysis of two national databases.

The trend is worrisome, and studies to identify the causes of methadone-related morbidity and mortality—as well as potential solutions to the problem—are critically needed, said Mario Moric, Ph.D., in a poster presentation at the annual meeting of the American Society of Anesthesiologists.

His study gathered data from the Drug Abuse Warning Network, which draws on in-hospital emergency records and coroner's data, and from the National Vital Statistics System, which provides poisoning information from death certificate data.

Records of emergency department (ED) visits from 1999 to 2005 that included mention of methadone showed an increase of 65%, accounting for 41,216 visits in 2005, according to Dr. Moric and his associates at Rush University, Chicago.

Death certificates listing methadone poisoning as the cause showed an increase from 786 deaths in 1999 to 3,849 deaths in 2004, a 390% jump that roughly paralleled a 487% rise in ED visits mentioning methadone during that same period, they reported. ■

In the past decade, methadone has become increasingly popular in pain treatment regimens, Dr. Moric said. Efforts to correct the undertreatment of pain have been followed by reports of wide-ranging abuse of certain pain medications such as oxycodone, especially in its controlled-release formulation, he added.

His study also looked at ED visits and deaths related to oxycodone and to all narcotics from 1999 to 2005. ED visits mentioning oxycodone increased 566% in this period, which surprisingly was not as large as the 659% growth in methadone-associated visits, he said. In 2005, 42,810 emergency visits were associated with oxycodone.

When data on all narcotics were lumped together, ED visits that mentioned any narcotic increased by 132% from 1999 to 2005. All opioid-associated deaths totalled 5,242 in 2004, compared with the 3,849 deaths in 2004 that were associated with methadone.

The Food and Drug Association issued an alert in 2006 about reports of deaths and respiratory depression, cardiac arrhythmias, and other life-threatening problems in patients taking methadone for chronic pain (www.fda.gov/cder/drug/InfoSheets/HCP/methadoneHCP.pdf).

Dr. Moric speculated that the upswing in ED visits and deaths associated with methadone may be attributable to cardiovascular issues related to methadone metabolites or to issues related to abuse or overdosing. ■

