

Treatment of Lower Back Pain Following Back Surgery: A Combination of Dry Needle Injection (Acupuncture) and Microcurrent Stimulation

Alejandro Katz, MD, OMD, LAc, QME

It is common in our acupuncture practice for orthopedists to refer patients who underwent back surgery without improvement. (After surgery, some cases show a worsening of pain and stiffness.) The majority of these patients are taking 800 milligrams of ibuprofen (Motrin) two to three times/day, or 375-500 milligrams of Naproxen two times a day. A minority of patients may take 100-200 milligrams of Celebrex one to two times/day, or 25 milligrams of Vioxx two times per day. The physical therapy on these patients has already been discontinued, due to the lack of improvement.

Examination of the lower back with moderate digital palpation usually shows three major, well-defined, pain-producing areas:

1. A common muscle involved in lower back pain is the iliocostalis lumborum. The lateral border (which extends from the ribs to the iliac spine) is divided into three identical segments. Numerous trigger points may be found during the examination. The trigger points located in the upper segment radiate pain toward the upper-lower abdominal area; the middle segment radiates pain-tingling toward the inguinal and lateral side of the thigh; and the lower (distal) segment refers pain-tingling toward the buttock and leg.
2. A second area to be examined is the interspinous ligaments/muscles of L4-5 and L5-S1. Moderate digital pressure in these trigger areas will often reproduce either the local or referred (buttock or leg) pain the patient is suffering.
3. The last area, the sacroiliac joint, presents between one and four trigger points, unilaterally or (more commonly) on both sides. These trigger points, when pressed moderately, will reproduce the pain numbness the patient complained of prior to surgery.

Treatment Technique

When the trigger areas are identified, deactivation of the trigger points involved will provide the results expected: pain reduction, discontinuance of pain medication and improved range of motion.

Stimulation of the trigger points is performed with presterilized, single-use Chinese-style acupuncture needles (#36 or #38 gauge, one inch in length).

The microcurrent device used is the Acutron Mentor. Its settings are: biphasic, interferential, with a stimulation of 75-100 microamps. Pads are placed on top of the needles for 20 to 25 minutes. The needles are inserted in a slant direction; insertion is done in multiple angles, in an attempt to reproduce the local referred pain pattern. When this is achieved, better results will follow. The needles are retained for 25-30 minutes.

The treatment protocol consisted of 12 to 24 treatments, delivered three times a week. The treatments are done using pads only (microcurrent stimulation) when the pain is severe. Once the

pain subsides (from severe to moderate), treatment proceeds with a combination of needles and pads.

Usually, six to eight treatments are needed for the patient to begin feeling better (i.e., a reduction in pain and medication use and an increased range of motion). If the patient's treatment results plateau, the microcurrent stimulation is changed to milliamp stimulation (milliamp stimulation is maintained as a noticeable, mild tingling sensation).

A course of daily stretching exercises is recommended as part of the protocol to assist with recovery of the muscles and tendons. The stretching exercises consist of single- and double-knee bends to the chest, performed three times a day, five knee bends each time, maintaining the stretch between 5-10 seconds.

The use of a less invasive modality (acupuncture compared to surgery) reduces the pain suffered by many of these patients. In addition, it lets them be more functional, and allows them to perform their daily activities more easily.

SEPTEMBER 2003