Neural Therapy

Neural therapy involves the injection of a local anesthetic such as procaine or lidocaine into scars, trigger points, acupuncture points, tendon and ligament insertions, peripheral nerves, autonomic ganglia, the epidural space, and other tissues to treat chronic pain and illness. When the anesthetic agent is injected into traditional acupuncture points, this treatment may be called neural acupuncture.

The practice of neural therapy is based on the belief that energy flows freely through the body. It is proposed that injury, disease, malnutrition, stress, and scar tissue disrupt this flow, creating disturbances in the electrochemical function of tissues and energy imbalances called “interference fields.” Injection of a local anesthetic is believed to reestablish the normal resting potential of nerves and flow of energy. Alternative theories include fascial continuity, the ground (matrix) system, and the lymphatic system. (1)

There is a strong focus on treatment of the autonomic nervous system, and injections may be given at a location other than the source of the pain or location of an injury. Neural therapy is promoted mainly to relieve chronic pain. It has also been proposed to be helpful for allergies, hay fever, headaches, arthritis, asthma, hormone imbalances, libido, infertility, tinnitus, chronic bowel problems, sports or muscle injuries, gallbladder, heart, kidney, or liver disease, dizziness, depression, menstrual cramps, and skin and circulation problems.

Neural therapy is considered investigational for all indications.

Neural therapy should be distinguished from the use of peripherally injected anesthetic agents for nerve blocks or local anesthesia. The site of the injection for neural therapy may be located far from the source of the pain or injury. The length of treatment can vary from one session to a series of sessions over a period of weeks or months.
There are no specific HCPCS codes for these local anesthetics when injected in this fashion (there is a code for IV lidocaine). The procedure would be reported using CPT codes for therapeutic injection such as:

20550: Injection(s); single tendon sheath, or ligament, aponeurosis
20551: Injection(s); single tendon origin/insertion
20552-20553: Code range for injection(s); single or multiple trigger point(s)
64400-64450: Code range for injection, anesthetic agent into nerves
64479-64484: Code range for injection, anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance by spinal region
64505-64530: Code range for injection, anesthetic agent into autonomic nerves/ganglia
96372: Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular

Rationale

This policy was created with a search of the MEDLINE database through October 2011 and updated through September 2012. Neural therapy is an alternative medicine modality that was developed in Germany and is most commonly reported in Europe. Most of the literature on neural therapy consists of non-English language publications.

One English language report from 1999 describes a small double-blind, randomized placebo-controlled cross-over trial in 21 patients with multiple sclerosis. (2) Anesthetic or saline was injected at acupuncture points in the ankle and at 14 or 15 points around the circumference of the head. Patients received 2 injections of anesthetic or saline in the first week; in the second week all patients received anesthetic injections. At the end of the first week, 8 of 11 patients in the active treatment group and 1 of 10 in the placebo group had improved in one or more functions on the Kurtzke scale. Therapy was continued as needed for up to 3.5 years, with long-term improvements being reported in over 50% of patients. At the time of publication, the authors reported having treated more than 300 patients with multiple sclerosis with this approach.

In 2012, Hui and colleagues reported a non-blinded randomized controlled trial of complementary and alternative medicine (CAM) for chronic herpes zoster-related pain. (3) The 59 patients included in the trial had a confirmed diagnosis of herpes zoster of at least 30 days in duration (median of 4.8 months, range, 1 month to 15 years) and with at least moderate postherpetic neuralgia pain (>4 on a 10-point Likert scale). The therapy included 3 weeks of neural therapy (injection of 1% procaine at up to 6 points along the affected dermatome) along with other therapies from traditional Chinese medicine (i.e., acupuncture, cupping and bleeding, and Chinese herbs) and meditation. A wait-list control group received the same treatment beginning 3 weeks after randomization. Intent-to-treat analysis of pain scores at 3 weeks showed significant improvement in the CAM group (baseline: 7.5, post-treatment: 2.3), with little change in the waitlist control group (baseline: 7.8; 3 weeks: 7.2). A reduction in pain of at least 50% was observed in 66.7% of patients in the treatment group compared with 8.7% in the control group. In the 56% of patients who responded to a questionnaire after 1-2 years, 78.8%
reported continued relief of pain. Interpretation of the results is limited by the multiple interventions provided and the possibility of a placebo effect in this non-blinded study.

In a case series from 1990, Arnér and colleagues reported prolonged relief of neuralgia after regional anesthetic blocks in 25 of 38 patients. (4) All patients had neuralgia due to nerve injury (endogenous entrapment or surgical or accidental trauma) with a mean pain duration of 3.8 years (range, 6 months to 12 years). All patients had a demonstrable sensory deficit or sensory hyperfunction within the cutaneous territory supplied by the injured nerve measured by quantitative sensory testing (QST). None of the patients had the classical type of complex regional pain syndrome (previously called reflex sympathetic dystrophy). Each patient received a series of 2-23 blocks (median 5.2 blocks) of bupivacaine. Sixteen patients experienced subjective improvement for weeks to months after the series of blocks, but a second series of blocks was effective in only 7 of these patients. Four of the 7 reported sustained improvement after 1-4 years. Thirty of the 38 patients did not experience long-lasting pain relief and were subsequently treated with transcutaneous electrical nerve stimulation (TENS). The report concluded that nerve blocks with local anesthetics rarely provide long-term, complete relief of neuralgia.

In 2011, Schmittinger and colleagues reported a case of brainstem hemorrhage following neural therapy for decreased libido. (5)

**Summary**

Neural therapy is an alternative medicine modality that involves the injection of a local anesthetic into various tissues to treat chronic pain and illness. There are few English language reports, and the available evidence is insufficient to permit conclusions concerning the health benefit of this procedure. Therefore, neural therapy is considered investigational.

**Medicare National Coverage**

There is no national coverage determination.

**References:**


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