

THE ARTHRITIC FOOT and Related Connective Tissue Disorders

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CHAPTER 5 Pain in the Arthritic Foot

TENS

According to Bussey and Jackson (1980), transcutaneous electrical nerve stimulation (TENS) may readily compliment traditional pharmacological therapy or alone can provide adequate analgesia. TENS provides for lessened pain and coughing. It facilitates deep breathing and increases mobility. As a postoperative therapy, the use of transcutaneous electrical nerve stimulation limits the complications of drugs. It is reasonable to believe that the limitation of drugs and the application of TENS would serve the arthritic patient well.

The treatment of painful arthritis in the foot by conventional rehabilitative measures aimed at pain and disability have met with some measure of success. Joint

mobilization, traction, active movements, and heavy massage may be painful to the chronic painful arthritic joint. They should be used with discretion and good judgment as indicated.

An electrical nerve stimulator called Electro-Acuscope 80 provides the therapist with the conventional mode of TENS with an additional "computer-controlled circuitry with all forms of feedback." This circuitry monitors the Biomagnetic electrical energy from the affected part as it simultaneously stimulates. Reports indicate an effective therapeutic result in 80% of the patients due to cumulative results. This form of therapy "does not block pain but relieves or removes the need for the pain as the body naturally heals."

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Acuscope is electrifying way to pull plug on pain

By SHANNON HENNEGAN
Niagara Gazette

LEWISTON — The metal box in Dr. Anthony Lazzarino's examining room looks like a video-cassette recorder. If it really were a VCR, the movie playing would be entitled something like "Escape from Pain."

But the metal box with the bright-red digital display is an Electronic-Acuscope. Lazzarino, a podiatrist, who has an office at 130 South Fifth St., has been using the device to treat patients since December.

The Acuscope is a medical instrument that utilizes low voltage electrical current to treat pain in virtually any part of the body. It was invented in 1978 and since then, about 8,000 have been sold at \$14,000 each, according to a spokesman for Current Medical Instruments Inc., a California distributor of

the device.

Anne Basile of Niagara Falls, was treated by Lazzarino with the Acuscope for chronic ankle pain that began after a car accident.

Lazzarino said that he had been treating her since March 1985 and that every treatment for the pain, which came from severe nerve damage, had been used.

"She (Mrs. Basile) is allergic to many pain killers and there was almost no pain medication that could work on her," said Lazzarino.

"I was just about to give up. I was ready to say 'cut it off' just make the pain stop," said Mrs. Basile.

But the pain stopped in March. Mrs. Basile is one of more than 100 patients that Lazzarino has treated with the Acuscope.

Lazzarino said that one way of using the treatment is to use two pen-like probes to

scan the area of pain.

"There are four computers that scan the tissue. It has the ability to scan a given amount of tissue and differentiate between healthy and unhealthy cells by the electrical emissions given off," said Lazzarino.

Once the area is found, electricity goes through the probes to the affected area. Usually only after a few minutes of treatment there is a marked increase of electrical charge in the treated area which is similar to the normal flow of electrical current through the body.

"It's like jump starting a car. Once it has the energy it goes. That is the same with the cells. The start rebuilding," said Lazzarino.

"Most people find a dramatic relief after one treatment. Why it's instantaneous is beyond me. They have not nailed it down yet. All I can say is that it works."

THERAPEUTIC APPLICATION OF COMPUTER-ASSISTED ELECTROSTIMULATION IN RHEUMATOLOGY AND PAIN MANAGEMENT

Outline By:
Julio E. Lergier Saliva, M.D., F.A.C.P.

I. INTRODUCTION

- *Arthritis and chronic pain impact on society
- *Mechanism of action

II. PATIENT EVALUATION AND SELECTION

- *When to treat, when to refer
- *Classification of chronic pain states (Emory pain estimate): Based on disease pathology (Exam, Lab, X-Rays, EMG, CT) and pain behavior (clinical observation-pain intensity, verbal/non-verbal, physical activity, drug intake [narcotics, tranquilizers, steroids], work/home disability syndrome).

EXAMPLE - worst prognosis, consider referral

1. LEARNED PAIN SYNDROME:

Pain behavior in excess of pathologic findings, reinforced by consequences. Operant pain - multidisciplinary pain center.

2. SEVERE PATHOLOGY

- *osteoarthritis hip, knee, total joint replacement
- *acute severe joint effusion-arthrocentesis
- *cervical or lumbar herniated disc with motor weakness/reflexes 0-laminectomy
- *lumbar spinal stenosis with neurologic deficits, neurosurgery, epidural steroids.

III. GENERAL TECHNIQUE

1. Treat area of pain mainly, add adjacent peripheral nerves, motor trigger points and primary referral areas (cervical spine, lumbosacral spine).
2. Minimum 6 treatments, better 10 treatments optimal 15-20 treatments for chronic pain. May have delayed or slow response over 20 treatments.
3. Modality-General Electro-Acuscope 0.5 Hz - 500 micro amp. 10-15 min.

Muscle spasm-Myopulse - 40 Hz - 600 micro amp, 10-15 min.

Anxiety depression-Electrosleep

IV. SPECIFIC CONDITIONS

1. Osteoarthritis - knee, hands, hips, cervical and lumbosacral spine (case #1).
2. Rheumatoid arthritis (case #2)
3. Soft tissue rheumatism
Generalized - "primary fibromyositis" (case #3)
Regional myofascial pain syndrome - cervical, lumbar, motor trigger points
(Ex. gluteus medius, case #4)
4. Local
Subacromial tendinitis/bursitis
Elbow lateral epicondylitis
Hip - trochanteric bursitis
Knee - anserine bursitis
5. Special Topics
*Pain in neck, low back (discogenic vs. non-discogenic check motor strength reflexes)
*Feet/hand pain (Carpal Tunnel Syndrome)
*Neuropathic pain (diabetic, idiopathic, post-herpetic, neuroma) (case #5)
*Headache chronic muscle tension, migraine, mixed

V. SUMMARY AND CONCLUSIONS:

VI. QUESTIONS AND ANSWERS:

CASE REPORTS

Case #1 - C. R. (Osteoarthritis knee)

Sixty year old white female teacher with four year history of severe bilateral knee pain crepitus and limited motion.

X-rays show severe Osteoarthritis knee. Treated with Electro-Acuscope twice weekly for ten treatments. Immediate marked improvement after first treatment. Totally pain free after ten treatments, has remained pain free with one monthly maintenance treatment. Had multiple steroid joint injections and multiple anti-inflammatory drugs without persistent improvement in the past.

Case #2 - G. C. (Rheumatoid Arthritis)

Fifty-one year old P.R. female housewife with six year history of adult onset, classic Rheumatoid Arthritis involving knees, PIP, MCP, wrist, shoulder and ankle joints bilaterally.

Exam shows severe joint swelling and classic Rheumatoid changes in above joints. Had been treated in the past with multiple anti-inflammatory drugs, steroid joint injections and gold salts without improvement. When seen she was on Ketoprofen (Orudis 75 mg) twice daily and Prednisone 10 mg daily and had severe joint pain, unable to function very well, "It had been a very sad experience, since I almost could not move or stand on my legs. I had visited many doctors but I felt no improvement."

The patient was started on Electro-Acuscope treatments twice weekly and after four treatments began to show improvement which continued to increase after eight treatments. "I can now stand on my legs for longer time and the pain in my hands, shoulders and ankles are gone, I have recovered my appetite and can sleep well."

The patient was continued on the same medications she took and showed this improvement with Electro-Acuscope as the primary treatment modality.

Case #3 - I. V. (Primary Fibromyositis)

Thirty-four year old white female university planning researcher with eight month history of severe progressively worsening muscular pains involving neck, shoulders, arms, low back and legs. Over ten tender points, bilateral symmetrical characteristic of Fibromyositis (lateral elbow, trapezius, medial thigh), tired, poor sleep, depressed, not working for three months, could not drive a car, emergency room visits. Started on treatment with Electro-Acuscope once weekly, pain levels eight on scale of 1-10 at start, dropping to 4-5 by five treatments and 0/10 by ten treatments. Continued biweekly and monthly maintenance treatments until she completed 20 treatments. Full return to work, no pain, driving car. Discharged from treatment September, 1986, remains pain free.

Case #4 - G. S. (Myofascial Pain Syndrome Gluteus Medius)

Thirty-eight year old white male executive with two week history of severe left buttock pain radiating to posterior thigh, past history of low back pain in 1979 for three months and in 1982 had similar left buttock pain lasting for three months, treated with analgesics and physical therapy with very slow improvement.

At the time of initial evaluation had recurrence of severe disabling pain was unable to walk or drive a car, pain was described as agonizing, unbearable, intensity ten in scale of 0-10. Used cane for support and was brought to the office limping and bent over assisted by his wife. Treatment consisted of naprosyn B.I.B. with mild temporary improvement, local xylocaine steroid injection to left buttock gluteus medius trigger point with referral of pain to posterior thigh. Injection gave temporary relief but pain returned. Injection repeated three days later with same result, recurrent pain. Treated with Electro-acuscope to left buttock and posterior thigh with partial improvement, pain decreased to 5 - 6/10. Five days later, second treatment with Myopulse to same areas, there was 8/10 pain intensity before treatment after 15 minutes, patient states that the pain was gone. Pain has not returned after a six week follow-up with one weekly Myopulse treatment twice, then Q-2 weekly for two, then D/C.

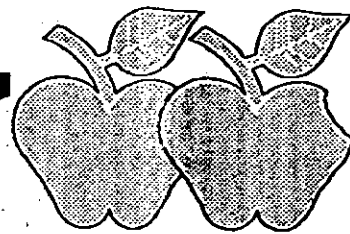
Case #5 - L. R. (Neuropathic Pain - [Neuroma] - Rheumatoid Arthritis)

Fifty-one year old P.R. female with 18 year history of Rheumatoid Arthritis treated with gold salts, corticosteroids and multiple anti-inflammatory drugs without improvement. Seventeen years ago developed exquisitely painful tender spot above right medial malleolus, operated one year later for "removal of neuroma" pain became worse, no improvement, actual increase in pain with non-steroidal drugs and Tylenol.

In 1983, (three years before treatment) a neurosurgeon performed right tarsal tunnel release for "compression to medial plantar branch of posterior tibial nerve," pain worsened, in early 1986, seen at St. Vincent's Hospital, New York City, with confirmed diagnosis of neuroma, treated with local steroid xylocaine injections and physical therapy without improvement, no further surgery can be done, poor prognosis. Seen in July, 1986, no improvement with any treatment, including surgery and injections, cannot sleep, cannot walk, even sensitive to air currents. Conventional T.E.N.S. led to worsening of symptoms. Pain level 9/10 at start of treatment with Electro-Acuscope, down to 5/10 after four treatments all pain gone, 0/10 at eight treatments can now walk well, sleeps well. On maintenance Q-2 weeks, without pain as of March, 1987.

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Melanie Cody demonstrates how the Myopulse machine works on Anne Larson. The two physical therapists own Back to Normal Physical Therapy.

Spotlight

On Applewood Area Business

Golden, CO

by Janet Layne
Transcript writer

The scope of the orthopedic physical therapy practice is no longer limited to the rehabilitation of wheelchair-bound accident victims.

Even those who have never been in an auto accident or received a sports-related injury may someday be treated by a physical therapist — perhaps for recurring headaches that are caused by teeth-clenching, or for back pain that is the result of poor posture.

Anne Larson and Melanie Cody, owners of Back to Normal Physical Therapy, specialize in outpatient orthopedic physical therapy. They are both licensed by the state of Colorado and serve as physical therapists and trainers for the Winter Park Disabled Ski Team.

In broad terms, they treat injuries within the musculo-skeletal system. This includes all of the joints in the body, the muscles, the bones, the ligaments, etc.

Larson and Cody have a variety of treatments to arrest the progression of the ailment and prevent further damage. They utilize a whole-body approach when designing a treatment program.

For example, if a 40-year-old man comes to them with chronic back pain that became unbearable after he shoveled snow, they would first look at the lifestyle of the patient. Does he have a little paunch? What kind of profession is he in? Is it a high-stress occupation? How often does he exercise? What kind of posture does he have?

What do all of these questions have to do with this imaginary patient's back pain? Larson says many men suffer from minor to severe chronic back pain because of the strain that being slightly overweight puts on lower back muscles. The shoveling probably injured a ligament that was already strained.

Physician-subscribed anti-inflammatory drugs or spine manipulation provide only a temporary solution because the cause of the problem is not treated. The therapists say one of

their biggest jobs is educating physicians and other professionals.

Cody says this patient should be started slowly on an aerobic exercise program geared to his level of fitness. Dietary changes should be evaluated and changes made if necessary. Stress reduction would be addressed and treatment could then progress to muscle-strengthening exercises.

The facility at 2801 Youngfield St. houses a Lifecycle, Nordic Track and rowing machine. A deluxe raised exercise mat and weights are utilized in the independent exercise treatment program.

"Our goal is to make our patients independent of us," says Cody, a former professional ski racer with the U.S.A. Women's Pro Tour.

At the same time, Larson and Cody also encourage continuity of care with their patients while they are in treatment. Says Larson, "We see the same patient throughout the course of the treatment. We don't utilize aides. Melanie and I do all of the treatment ourselves."

A percentage of patients come to Back to Normal Physical Therapy prior to surgery. Cody and Larson often see patients awaiting arthroscopic knee surgery. Physicians suggest physical therapy prior to putting pa-

tients under the knife for two reasons: 1) some physical therapy on certain patients alleviates the need for surgery; and 2) those who need to have surgery go into it stronger and post-operative recovery is shortened.

Knee joints are perceived as common injury sites. Another joint that causes its share of trouble is the temporomandibular joint. TMJ, or the jaw joint, is the most complex joint in the body. Headaches, neck pain, blurred vision, earaches and a host of other ailments can be traced to injury to the soft tissue around the TMJ.

Continued on Page 5

Machine credited with healing

Continued from Page 1

An exciting new development in the treatment of soft-tissue injuries is the Myopulse Machine. Although it is common to professional athletic training rooms, Back to Normal Physical Therapy is one of the few independent physical therapy facilities with one on the premises.

The machine achieves amazing results, especially on acute

injuries. Electricity, when sent to an injury site, restores the natural flow of electrons in the cells. In turn, the conductivity of the tissue is restored so it can heal.

The popularity of the Myopulse Machine with athletes is not surprising because of the swiftness of healing that it promotes. For the same reason, it is being used more frequently all

the time for patients who are not athletes.

Anne and Melanie's patients include elite and recreational athletes as well as the sedentary portion of the populace.

Back to Normal Physical Therapy is located at 2801 Youngfield St. in the Applewood Technical Center, Suite 141. Anne or Melanie can be reached at 232-9391.