What Is the Nature of Laser Therapy?

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Like herbs and acupuncture, laser therapy is an energetic stimulus with its own parameters. It is more akin to moxibustion than acupuncture. In some ways, laser therapy might be thought of as the ultimate form of moxibustion, but this would be inadequate. Moxibustion is used to treat cold conditions; laser therapy can address much more.

Laser therapy adds *qi*. It is regulatory. It can be used to balance and treat yin; yang; cold; heat; deficiency; excess; interior; and exterior conditions. The principles of Oriental medicine apply to laser therapy as they do to acupuncture or herbs, although the methods of treatment differ.

Case Study - Alopecia Areata

MC is a 24-year-old high school teacher who first noticed hair loss in patches two months before beginning laser treatment. She was scheduled three times weekly and treated with laser therapy, microstim, Western herbs and supplements.

For a long time, it seemed as if nothing was happening, though MC (a brunette) insisted she could see fine blonde hairs growing early on. By the 18th session, we thought we were observing hair regrowth; by the 23rd treatment, we were certain. Dark hair is coming in very nicely now in two areas, although we are still awaiting regrowth over the largest bald patches. MC is delighted and continues to receive treatment three times weekly.

Case Study - Compression Fracture

MW is an 82-year-old female who suffered a compression fracture which she attributed to a fall two years before her first visit. She rated the pain in her left lower back a "5" on a 0-10 scale before treatment and "0" immediately after the first session. MW was seen on 11 visits. "I have no pain at all anymore," she reported before the last session.

Case Study - Fractured Tibia

RS is a 36-year-old female who fractured her right tibia in a skiing accident. She returned home from her vacation uncasted and in severe pain. X-ray showed a proximal fracture of the posterior aspect of the tibial plateau, with a bone fragment within the region of the intercondylar notch. She was scheduled for surgery a few days later. We treated her twice before surgery. RS rated her pain a "10" on a 0-10 scale before the first treatment, and "1" immediately afterward. On the next day before the second treatment, she scored her pain at "6" and rated it "0" immediately afterward.

We have scheduled her twice weekly since the surgery. Our goals are to hasten and enhance her recovery, relieve pain and diminish scarring. RS reports she is experiencing very little pain at the site, and more discomfort in the right shoulder and hip, which she attributes to her crutches. We are treating that as well.

Randomized Trial - Trauma and Wound Healing

Wound Healing in Animals and Humans with Use of Low-Level Laser Therapy - Treatment of Operated Sport and Traffic Injuries: A Randomized Clinical Study. Zlatko Simunovic, MD, FMH, Department of Anesthesiology and Intensive Care Unit, La Carit√° Medical Center, Laser Center, Locarno, Switzerland; Anthony D. Ivankovich, MD, Department of Anesthesiology, Rush Presbyterian St. Luke's Medical Center, Chicago, Illinois; Arsen Depolo, MD, PhD, Department of Surgery, Medical School, University of Rijeka, Rijeka, Croatia.

Background and Objective: The main objective of current animal and clinical studies was to assess the efficacy of low-level laser therapy (LLLT) on wound healing in rabbits and humans.

Study Design/Materials and Methods: A randomized, controlled study in rabbits initially evaluated the effects of laser irradiation on the healing of surgical wounds. The application of LLLT to human tissues is comparable to animal tissues of similar physiological structure, so a clinical evaluation was subsequently conducted. After surgical therapy for injuries involving the ankle and knee bilaterally; Achilles tendon; epicondylus; shoulder; wrist; or interphalangeal joints of hands unilaterally, LLLT was used in 74 patients for 18 days. Infrared diode laser (GaAlAs) 830 nm continuous wave was used for treatment of Trigger Point (TP) and HeNe 632.8 nm combined with diode laser 904 nm pulsed wave laser for scanning procedures, both applied as monotherapy during the current clinical study. The presence of redness, heat, pain, swelling and loss of function was assessed.

Results: Wound healing was significantly accelerated (25-35%) in the group of patients treated with LLLT. Pain relief and functional recovery of patients treated with LLLT were significantly improved comparing to untreated patients.

Conclusion: In addition to accelerated wound healing, the main advantages of LLLT of postoperative sport- and traffic-related injuries are reduced exposure to side-effects of drugs; significantly accelerated functional recovery; and earlier return to work, training and sport competition, with cost benefit compared to control patients.

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