

Laser Therapy - Positive Double Blind Studies

ALLERGIC RHINITIS

Neuman I. et al. Low energy phototherapy in allergic rhinitis and nasal polyposis. *Laser Therapy*. 1996. 1: 37.

ARTHRITIS

Antipa C. et al. Comparative effects of various IR low energy diodes in the treatment of the rheumatic diseases. 1997. In press (Monduzzi Editore, Bologna)

Barabas K. et al. Controlled clinical and experimental examinations on rheumatoid arthritis patients and synovial membranes performed with neodym phosphate glas laser irradiation. Proc. 7th Congr Internat Soc for Laser Surg and Med, Munich June 1987. Abstract no 216a.

Goldman J. A. et al. Laser therapy of rheumatoid arthritis. *Lasers Surg Med*. 1980; 1: 93 102.

Gärte S. et al. Doppelblindstudie zur Ueberpruefung der Wirksamkeit und Vertraeglichkeit einer niederenergetischen Lasertherapie bei Patienten mit aktiver Gonarthrose. *Jaros Orthopaedie*. 1995. 12: 3034.

Hoteya K. et al. Effects of a 1 W GaAlAs diode laser in the field of orthopedics. In: Meeting Report: The first Congress of the International Association for Laser and Sports Medicine. Tokyo, 1997. *Laser Therapy* 1997; 9 (4): 185

Lonauer G. Controlled double blind study on the efficacy of He-Ne-laser beams versus He-Ne-plus Infrared-laser beams in the therapy of activated osteoarthritis of finger joints. *Clin Experim Rheuma*. 1987; 5 (suppl 2) : 39

Mach E. S. et al. Helium-Neon (Red Light) Therapy of Arthritis. *Rheumatologia*, 1983; 3: 36.

Miyagi K. Double-blind comparative study of the effect of low-energy laser irradiation to rheumatoid arthritis. Current awareness of Excerpta Medica. Amsterdam. Elsevier Science Publishers BV. 1989; 25: 315.

Molina J. J. et al. La laserterapia como coadyuvante en el tratamiento de la A.R. (Artritis Reumatoidea). *Boletin C.D.L., Barcelona*. 1987; 14: 4-8.

Nivbrant Bo et al. Therapeutic laser treatment in gonarthrosis. *Acta Orthop Scand*. 1989; 60: 231.

Ortutay J et al. Psoriatic Arthritis Treatment with low power laser irradiation. A double blind clinical study. *Lasermedizin - Laser in Med Surg*. 1998; 13 (3-4): 140.

Oyamada Y. et al. A double blind study of low power He-Ne laser therapy in rheumatoid arthritis. *Optoelectronics in Medicine*. 1987; p 747-750. Springer Verlag, Berlin (abstract). Complete study in *Boleton de CDL*. 1988; 17: 8-12.

Palmgren N. et al. Low-Power Laser Therapy in Rheumatoid Arthritis. *Lasers in Medical Science*. 1989; 4: 193.

Willner R. et al. Low power infrared laser biostimulation of chronic osteoarthritis in hand. *Lasers Surg Med*. 1985; 5: 149.

EPICONDYLITIS

Gudmundsen J. et al. Laserbehandling av epicondylitis humeri og rotatorcuff-syndrom. Dobbelt blindstudie - 200 pasienter. (Laser treatment of epicondylitis humeri and rotator cuff syndrome. Double blind study - 200 patients. In Norwegian) *Norsk tidsskrift for idrettsmedisin*. 1987; 2: 6.

Haker E. et al. Is low-energy laser treatment effective in lateral epicondylalgia? *J of Pain and Symptom Management*. 1991; 6(4): 241.

Hopkins G. O. et al. Double blind cross over study of laser versus placebo in the treatment of tennis elbow. Proc International. Congress on Lasers, "Laser Bologna". 1985: 210. Monduzzi Editore S.p.A., Bologna.

Palmieri B. A double blind stratified cross over study of amateur tennis players suffering from tennis elbow using infrared laser therapy. *Medical Laser Report*. 1984; 1: 3-14

Simunovic Z., Trobonjaca T. et al. Treatment of medial and lateral epicondylitis - tennis and golfer elbow - with low level laser therapy: a multicenter double blind, placebo controlled clinical study on 324 patients. J Clin Laser Med & Surg. 1998; 16 (3): 145-151.

Vasseljen O. et al. Low level laser versus placebo in the treatment of tennis elbow. Scand Scand J Rehab Med. 1992; 24: 37. Also in Physiotherapy. 1992; 5: 329.

FIBROSITIS/FIBROMYALGIA

Scudds R. A. et al: A double-blind crossover study of the effects of low-power gallium arsenide laser on the symptoms of fibrositis. Physiotherapy Canada. 1989; 41: (suppl 3): 2.

HERPES SIMPLEX

Volez-Gonzalez M. et al. Treatment of relapse in herpes simplex on labial and facial areas and of primary herpes simplex on genital areas and "area pudenda" with low power HeNe-laser or Acyclovir administered orally. SPIE Proc. 1995; Vol. 2630: 43-50

HYPERSENSITIVE DENTINE

Gelskey S. C. et al. The effectiveness of the Nd:YAG laser in the treatment of dentinal hypersensitivity. J Can Dent Assoc. 1993; 59 (4): 337-386.

Gerschman J. A. et al. Low Level Laser in dentin hypersensitivity. Australian Dent J. 1994;39:6.

Yamaguchi M. et al. Clinical study on the treatment of hypersensitive dentin by GaAlAs laser diode using the double blind test. Aichi Gakuin Daigaku Shigakkai Shi - Aichi-Gakuin Journal of Dental Science. 1990; 28(2): 703-707. (in Japanese)

MICROCIRCULATION

Schindl A. et al. Low intensity laser irradiation improves skin circulation in patients with diabetic microangiopathy. Lasers Surg Med. 1998; Suppl. 10: 7.

MUCOSITIS

Cowen D. et al. Low energy helium neon laser in the prevention of oral mucositis in patients undergoing bone marrow transplant: results of a double blind randomized trial. Int J Radiat Oncol Biol Phys. 1997; 38 (4): 697-703.

NERVE FUNCTIONS

Antipa C. et al. Clinical results of the low energy laser action on distal forearm posttraumatic nerve lesions. Laser Therapy. 1996; 1: 36.

Khullar S. M. et al. Low level laser treatment improves longstanding sensory aberrations in the inferior alveolar nerve following surgical trauma. J Oral Maxillofac Surg. 1996; 54: 2-7.

Khullar S. M. et al. Effect of low-level laser treatment on neurosensory deficits subsequent to sagittal split ramus osteotomy. Oral Surgery Oral Medicine Oral Pathology. 1966; 82 (2): 132- 8.

Rochkind S. et al. Double-blind Randomized Study Using Neurotube and Laser Therapy in the Treatment of Complete Sciatic Nerve Injury of Rats. Proc. 2nd Congr World Assoc. for Laser Therapy, Kansas City, 1998.

Snyder-Mackler L. et al. Effect of helium-neon laser irradiation on peripheral sensory nerve latency. Physical Therapy. 1988; 68: 223.

Walker J. Temporary suppression of clonus in humans by brief photostimulation. Brain Research. 1985; 340: 109.

Walsh D. et al. The effect of low intensity laser irradiation upon conduction and skin temperature in the superficial radial nerve. Double-blind placebo controlled investigation using experimental ischaemic pain. Proc. Second Meeting of the Internat Laser Therapy Association, London, sept. 1992.

.....

PAIN

Armino L. et al. Laser therapy in post-episiotomic neuralgie. LASER. Journ Eur Med Laser Ass. 1988; 1(1):7.

Atsumi K. et al. Biostimulation effect of low-power energy diode laser for pain relief. Lasers Surg Med. 1987; 7: 77.

Carillo J. et al. A randomized double-blind clinical trial on the effectiveness of helium-neon laser in the prevention of pain, swelling and trismus after removal of impacted third molars. Int Dent Journ. 1990; 40: 31.3

Ceccherelli F. Diode laser in cervical myofascial pain. A double-blind study versus placebo. The Clin J Pain. 1989; 4: 301-304.

Cheng R. Combined treatments of electrotherapy plus soft laser therapy has synergistic effect in pain relief and disease healing. Surgical and Medical Lasers. 1990; 3 (3): 135 (abstract).

Eckerdal A., Lehmann Bastian H. Can low reactive-level laser therapy be used in the treatment of neurogenic facial pain? A double-blind, placebo controlled investigation of patients with trigeminal neuralgia. Laser Therapy. 1996; 8: 247-252.

Emmanoulidis O. et al. CW IR low-power laser application significantly accelerates chronic pain relief rehabilitation of professional athletes. A double blind study. Lasers Surg Med. 1986; 6: 173.

De Bie R. A. Effect of laser therapy on ankle sprains Ned. T. Fysiotherapie. 1988; 95: 108- 112. (in Dutch)

Flöter T., Refisch H. P. Pain treatment with laser. A double blind study. Proc. of the 4th Internat Symposium. Acupunct & Electro-Therap Res. 1988; 13(4): 236-237. Also: Schmerzbehandlung mit Laser. Eine Doppelblinde Studie. Top Medizin. 1990; 4(4): 52-56.

Gertner C. Analgesy by low power laser (LPL): a controlled double blind study in ankylosing spondarthritis (SPA). Lasers Surg Med. 1989; Suppl 1:55.

Hashimoto T. et al. Efficacy of laser irradiation on the area near the stellate ganglion is dose-dependent: a double-blind crossover placebo-controlled study. Laser Therapy. 1997; 1(9): 7- 11.

Kemmotsu M. D. et al. LLLT for pain attenuation - the current experience in the pain clinic. In: Progress in Laser Therapy. Eds Oshiro T, Calderhead R G. 1991: 197-200. John Wiley & Sons, Chichester, Engl. ISBN 0-471-93154-3.

Kemmotsu M. D. et al. LLLT for pain attenuation - the current experience in the pain clinic. In: Progress in Laser Therapy. Eds Oshiro T, Calderhead R G. 1991: 197-200. John Wiley & Sons, Chichester, Engl. ISBN 0-471-93154-3.

Longo L. et al. Treatment with 904 nm and 10600 nm laser of acute lumbago - double blind control. LASER. Journ Eur Med Laser Ass. 1988; 1(3):16.

Mokhtar B. et al. A double blind placebo controlled investigation of the hypoalgesic effects of low intensity laser irradiation of the cervical roots using experimental ischaemic pain. Proc. Second Meeting of the International Laser Therapy Assn., ôLondon Laserö, Sept 1992, p 61.

Moore K. et al The effect of infra-red diode laser irradiation on the duration and severity of postoperative pain. A double-blind trial. Laser Therapy. 1992; 4: 145.

Moore K. et al. LLLT treatment of post herpetic neuralgia. Laser Therapy. 1988; 1: 7.

Roumeliotis D. et al. 820nm 15mW 4J/cm², laser diode application in sports injuries. A double blind study. Proc. Fifth Annual Congress British Medical Laser Association. 1987.

Saeki N. et al. Double blind test for biostimulation effects on pain relief by diode laser. 1989. Laser Surgery; 1066: 93-100.

Sato K. et al. A double blind assessment of low power laser therapy in the treatment of postherpetic neuralgia. Surgical and Medical Lasers. 1990; 3 (3): 134 (abstract)

Simunovic Z., Trobonjaca T. Soft tissue injury during sport activities and traffic accidents - treatment with low level laser therapy. A multicenter double blind, placebo controlled clinical study on 132 patients. Proc. IXX ASLMS Congress, Orlando, Florida, April 1999.

Soriano F. A. et al. Acute cervical pain is relieved with gallium-arsenida (GaAs) laser irradiation. A double-blind preliminary study. *Laser Therapy*. 1996; 8: 149-154.

Soriano F. A. et al. Low level laser therapy response in patients with chronic low back pain. A double blind study. *Lasers Surg Med*. 1998, Suppl. 10, p. 6.

Toya S. et al. Report on a computer-randomized double blind clinical trial to determine the effectiveness of the GaAlAs (830 nm) diode laser for pain attenuation in selected pain. *Laser Therapy* 1994; 6:143.

Taguchi T. et al. Thermographic changes following laser irradiation for pain. *Clinical Laser Med Surg*. 1991; 2(9): 143.

Tsurko V. et al. Laser therapy of rheumatoid arthritis. A clinical and morphological study. *Terap Arkh*. 1983; 97. (Russian).

Walker J. Relief from Chronic Pain by Low Power Laser Irradiation. *Neuroscience Letters*. 1983; 43: 339

Wylie L. et al. The hypoalgesic effects of low intensity infrared laser therapy upon mechanical pain threshold. *Lasers Surg Med*. 1995; Suppl 7:9.

SINUSITIS

Kaiser C. et al. Estudio en doble ciego randomizado sobre la eficacia del He-Ne en el tratamiento de la sinusitis maxilar aguda: en pacientes con exacerbacion de una infeccion sinusal cronica. (Double blind randomized study on the effect of HeNe in the treatment of acute maxillary sinusitis: in patients with exacerbation of a chronic maxillary sinusitis). *Boleton CDL*. 1986; 9: 15.

SJOEGREN'S SYNDROME

Fructuoso F. J. G., Moset J. M. Estudio randomizado doble ciego sobre los efectos bioestimulantes del laser en la irradiacion de glandula paratida en pacientes afectos de syndrome de Sjogren. (Double blind study on the biostimulatory effects of laser irradiation on the parotid gland in patients affected by Sjogrens syndrome). *Investigacion y Clinica Laser*. 1987; 4 (1): 18-25.

TENDINITIS

Loegdberg-Andersson M. et al. Low level laser therapy (LLLT) of tendinitis and myofascial pains - a randomized, double-blind, controlled study. *Laser Therapy*. 1997; 2 (9): 79-86.

Meier J. L, Kerkour K. Traitement laser de la tendinite. *Med. et Hyg*. 1989; 46: 907-911.

Saunders L. The efficacy of low-level laser therapy in supraspinatus tendinitis. *Clin Rehab*. 1995; 9: 126-134

TRIGGER POINTS

Airaksinen O., et al. Effects of infra-red laser irradiation at the trigger points. *Scand J of Acu & El Therapy*. 1988; 3: 56-61

Laakso E. L. et al. Pain scores and side effects in response to low level laser therapy (LLLT) for myofascial trigger points. *Laser Therapy*. 1997; 2 (9): 67-72.

Snyder-Mackler L. et al. Effect of helium-neon laser on musculoskeletal trigger points. *Physical Therapy*. 1986; 66: 1087.

Snyder-Mackler L. et al. Effect of helium-neon laser irradiation on skin resistance and pain in patients with trigger points in the neck or back. *Physical Therapy*. 1989; 69: 336. *Wound Healing*

Bihari I., Mester A. The biostimulative effect of low level laser therapy of long-standing crural ulcer using Helium Neon laser, Helium Neon plus infrared lasers and non coherent light:

Abstracts Provided by **K[®]-LASER Class IV Laser Technology**

Preliminary report of a randomized double blind comparative study. *Laser Therapy*. 1989; 1(2): 97.

Kim J. W., Lee J. O. Double blind cross-over clinical study of 830 nm diode laser and 5 years clinical experience of biostimulation in plastic & aesthetic surgery in Asians. *Lasers Surg Med*. 1998; Suppl. 10: 59.

Kinoshita F. et al. Clinical evaluation of low-energy, semi-conductor laser therapy in oral surgery - a double blind study. *Josai Shika Daigaku Kiyo*. 1986; 15 (3): 735-742. (in Japanese)

Lucas C. et al. Low level laser therapy bij decubitus statium III. Rapport Hoegschool van Amsterdam. 1994.

Mester A. Biostimulative effect in wound healing by continous wave 820 nm laser diode. Double-blind randomized cross-over study. *Lasers in Med Science*, abstract issue July 1988, No 289.

Palmgren N. et al. Low Level Laser Therapy of infected abdominal wounds after surgery. *Lasers Surg Med*. 1991; Suppl 3:11.

Sasaki K. et al. A double-blind controlled study on free amino acid analysis in CO2 laser burn wounds in the mouse model following doses of low incident infrared (830 nm) diode laser energy. *Proc. 2nd Meeting of the Internat Laser Therapy Assn., London, 1992*, p.4.

Sasaki K. et al. A preliminary double blind controlled study on free amino acid analysis in burn wounds in the mouse following 830 nm diode laser therapy. *Laser Therapy*. 1997; 2 (9): 59-65.

