Physiotherapy Relieves Pain an Evidence Based Practice

Natarajan Venkatesh

Sri Ramachandra University, India

Abstract: Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or injury, or described in terms of such damage or injury. Physical rehabilitation emphasizes the use of modalities such as heat, cold, and electricity to relieve pain. Heat, one of the oldest modalities to relieve pain, can also decrease muscle spasm and improve function superficial heat can be provided by means of hot packs, hot water bottles, hot moist compresses, electrical heating pads, or chemical or gel packs. Deep heating (diathermy) is achieved by converting another form of energy to heat. In shortwave diathermy, high-frequency electrical currents are converted to heat, while microwave diathermy uses electromagnetic radiation as the source. Electricity has been a pain treatment modality since ancient times. The most common mechanism for applying therapeutic electricity is Transcutaneous Electrical Nerve Stimulation (TENS), Interferential therapy (IFT). Electro galvanic stimulation (EGS), electrical muscle stimulation (EMS) and neuroaugmentative stimulation are other rehabilitative methods that employ electrical current. TENS involves the delivery of electrical energy across the surface of the skin to stimulate the peripheral nervous system is based on the gate control theory of pain modulation. TENS is most effective in neuropathic pain such as complex regional pain syndromes (reflex sympathetic dystrophy and causalgia), phantom pain, and post herpetic neuralgia. Empirical and experiential evidence indicates that TENS, in selected patients, can provide an alternative to medications and improve the individual's function. However, several trials and systematic reviews indicate that a large, perhaps major, component of pain relief after TENS is due to a placebo effect.. Ultrasound, first introduced for medical use in the United States in the late 1940s, uses high-frequency acoustic vibration that is converted into heat. Deep-heating modalities increase temperature to depths of 3-5 cm. Ultrasound is the preferred treatment in most painful disorders, especially those arising from soft tissues and ligaments, as it has greater penetration and also nonthermal effects, such as increasing extensibility of tissues.

Introduction: Physical therapy is employed to boost a patient's physical functions through physical examination, diagnosis, prognosis, physical intervention, rehabilitation

and patient education. It's practiced by physical therapists (known as physiotherapists in several countries).

Physical therapy addresses the diseases, or injuries that limit a human talents to maneuver and perform purposeful activities in their daily lives. PTs use a personality's history and physical examination to gain a identification and establish a management arrange and, once necessary, incorporate the results of laboratory and imaging studies like X-rays, CT-scan, or MRI findings. Electrodiagnostic testing (e.g., electromyograms and nerve physical phenomenon rate testing) might also be used.PT management ordinarily includes prescription of or help with specific exercises, manual medical care, and manipulation, mechanical devices like traction, education, electrophysical modalities that embrace heat, cold, electricity, sound waves, radiation, helpful devices, prostheses, orthoses, and alternative interventions. Additionally, PTs work with people to stop the loss of quality before it happens by developing fitness and wellness-oriented programs for healthier and additional active lifestyles, providing services to people and populations to develop, maintain and restore most movement and purposeful ability throughout the life. Physiatrics may be a skilled career that has several specialties together with contractile organ, medical science, cardiorespiratory, neurology, medicine, medical specialty, geriatrics, pediatrics, women's health, wound care and diagnostic technique. Medicine rehabilitation is specifically a apace rising field. PTs follow in several settings, like private-owned physiatrics clinics, patient clinics or offices, health and eudaimonia clinics, rehabilitation hospitals facilities, sure-handed nursing facilities, extended care facilities, personal homes, education and analysis centers, schools, hospices, industrial and this workplaces or alternative activity environments, fitness centers and sports coaching facilities.

Physical therapists additionally follow within the nonpatient care roles like health policy, insurance, health care administration and as health care executives. Manipulative procedures to the spine and extremity joints began to be practiced, particularly within the commonwealth countries, within the early Nineteen Fifties. Around the time that infantile paralysis vaccines were developed, physical therapists became a standard prevalence in hospitals throughout North America and Europe. In the late Nineteen

Extended Abstract

Fifties, physical therapists began to move on the far side hospital-based observe to patient orthopedically clinics, public colleges, colleges/universities health-centres, geriatric settings (skilled nursing facilities), rehabilitation centers and medical centers. Specialization for physiotherapy within the U.S. occurred in 1974, with the orthopedic Section of the APTA being fashioned for those physical therapists specializing in orthopedics.

Conclusion: Ultrasound has greater penetration effect hence used widely for pain relief for soft tissue and ligament injuries and TENS for neurological conditions.

References:

1. Fuchs, S. (1979) Curr. Top. Microbiol. Immunol. 85, 1–29.

2. Lindstrom, J., Shelton, D. &Fujii, Y. (1988) Adv. Immunol. 42, 233–284

3. Souroujon, M. C. & Fuchs, S. (1997) in Immunological Methods Manual, ed.

Lefkovits, I. (Academic, New York), pp. 1763–1773.

4. Drachman, D., Adams, R. N., Josifek, L. F., Pestronk, A. & Stanley, E. F. (1981)

Ann. N. Y. Acad. Sci. 377, 175-188.

5. Tzartos, S. J., Barkas, T., Cung, M. T., Kordossi, A., Loutrari, H., Marraud, M.,

Papadouli, I., Sakarellos, C., Sophianos, D. &Tsikaris, V. (1991) Autoimmunity

8, 259–270.

6. Tzartos, S. J., Hochschwender, S., Vasquez, P. & Lindstrom, J. (1987)

J. Neuroimmunol. 15, 185–194.