

DEPARTMENT OF REHABILITATION AND PHYSICAL THERAPY

151. ACUPOINT THREAD IMBEDDING THERAPY IN TREATMENT OF SCIATIC NEUROPATHY

Author: **Ignatov Olga**

Scientific adviser: Oleg Pascal, PhD, MD, university professor, Department of Rehabilitation and Physical Therapy, Nacu Viorel, Laboratory of Tissue Engineering and Cells Cultures *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. This literature review aims to evaluate the efficacy and safety of acupoint thread embedding therapy in sciatic nerve neuropathy.

Aim of the study. This literature review aims to evaluate the efficacy and safety of acupoint thread embedding therapy in sciatic nerve neuropathy.

Materials and methods. In order to achieve our main goal articles containing the key words were selected from PubMed, Hinari, Scopus, and ScienceDirect databases. For advanced selection of literature sources, the following filters were applied: articles published after January 2002 and just articles in English. Original research articles were selected (preclinical, clinical and experimental studies). The information and main aspects of acupoint thread embedding therapy in sciatic neuropathy were systematized.

Results. Sciatic neuropathy is one of the most common neuropathies of the lower extremities and a common cause of foot drop. Sciatic nerve neuropathy can be caused by traumatic, compression, ischemic, neoplastic or idiopathic etiology. Symptoms of sciatic neuropathy can be very diverse. But all signs are characterized by acute pain along the sciatic nerve and dysfunction of the lower limbs. Acupoint thread embedding therapy is a type of acupuncture and alternative treatment that inserts medical threads into skin, subcutaneous tissue or muscles at specific points. The absorbable surgical thread, a foreign protein, can induce allergic reactions and the combined effects of proteolytic enzymes and macrophage action against the

absorbable surgical thread may strengthen and extend the acupoint stimulation for 15–20 days as a consequence of the mild irritation in subcutaneous tissue. The researchers note that acupuncture successfully increases “acetylcholinesterase expression in spinal cord tissue after peripheral nerve injury”. As a result, this may be an important mechanism by which it promotes the healing of peripheral nerves. It also could regulate multiple molecules and signaling pathways that lead to excitotoxicity, oxidative stress, inflammation, neurons death and survival and also promote neurogenesis, angiogenesis, and neuroplasticity after ischemic damage. Acupuncture treatment activates endogenous analgesic mechanisms, causing the secretion of endorphin, causing a quick effective analgesic effect.

Conclusions. Acupoint embedding therapy is an invasive treatment which can prolonged point stimulation, reduces the frequencies of pain and psychological fear of patients and visits to the doctors. It seems to be a promising method of sciatic nerve neuropathy treatment.

Key words: sciatic nerve neuropathy, acupuncture, acupoint embedding therapy.