

Abstract

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Title of diploma thesis: **The combination of rehabilitation methods in treatment of chronic non-healing wounds**

The healing of chronic wounds is a long-term and therapeutically difficult process which has three phases (exsudative, proliferative and epithalization). Wounds which do not show any tendency to heal even after 6 -9 weeks are classified as chronic. The diabetic foot syndrome is an example of such wounds.

The diabetic foot syndrome is one of the complications of the chronic metabolic disease diabetes mellitus. It exhibits itself as ulceration and destruction of the deep tissue in lower limbs. With some patients, amputation is necessary.

This thesis focuses on the influence of applying rehabilitation methods in the healing of chronic skin defects of the lower limbs in seven type 2 diabetes mellitus patients. Patients with ages ranging from 56 to 84 years. The purpose is to compare theory with reality.

The rehabilitation consisted of a combination of lymphatic drainage application and a low power laser – POCKET THERAPY LASER TL – therapy. Two patients were performed only lymphatic drainage treatment.

The supposition of lymphatic drainage is to increase resorption and transport of the lymph in the lymphatic stream which should result in the reduction of edema, providing nutrition for the damaged tissue and better blood flow in the affected area. Theoretically, thanks to the laser radiation being absorbed by cells, there is an

increased recreation of cell energy, cell growth, faster epithalization of the affected tissue, and stimulation of collagen generation.

At the beginning, all patients were singly treated with lymphatic drainage for the course of approximately one month. They were applied to ten cure of lymphatic drainage. The circumference of their thighs, knees, calves, ankles and insteps were measured. The lymphatic drainage was always started by manual lymph drainage, it means treatment, draining lymph nodes. Only then was applied lymphatic drainage. The applications were always conducted directly on the skin, so without bandages. Total time of lymphatic drainage treatment was one hour. Afterwards laser radiation was applied for a little under one month's time and the size of the wounds was documented. A check up of the defects and edema was performed 6 months later with some of the patients. Findings from this group of patients are shown in photographic documentation of individual case reports.

Since the interval of monitoring was too short, it is not possible to clearly state whether the combination of these rehabilitation methods was positive or not with chronic skin defects of the lower limbs in patients with type 2 diabetes mellitus.