

## **ABSTRAKT BAKALÁŘSKÉ PRÁCE V AJ**

**Author: Viktorie Kubová, DiS.**

**Supervisor: Ing. Eva Kejhová**

**Title: Overview of modern approaches to a physiotherapeutic treatment of scars in the subacute phase**

### **Abstract:**

This Bachelor thesis is of a research character and concerns the physiotherapy of scars in subacute phase. Considering this point of view, this period can be described as the proliferation phase of healing, i.e. the time of one to four weeks since the scar formation. The scar is a connective tissue which replaces the site of the defect and by its interference with the integrity of the body scheme it can not only be an aesthetic problem, but also a source of difficulties in the locomotor system. Physiotherapy is an integral part of scar therapy. It is involved in maintaining the integrity of the skin system and its aim is not only to improve or restore the appearance of the skin, but mainly its function.

The objective of this thesis is to provide a comprehensive summary of the scarring problem and to obtain an answer to the research question whether it is appropriate to use soft tissue mobilisation in the subacute phase. Further objective is to make a systematic review of clinical studies focusing on the most commonly used methods of physiotherapy in the treatment of scars in the subacute phase of healing. A total of twenty studies researching manual therapy, silicone-based products and various types of laser therapy are included in the review.

After studying the literature and elaborating on the issue of scars, the answer to the research question was obtained. Current literature recommends early intervention of manual therapy, but emphasizes the various stages of healing during scar therapy to be taken into account. The main effects of researched therapies on the characteristics of the scar were then evaluated from the review results. Soft tissue mobilisation in connection with massage improves the pliability of the scar and movements of the surrounding tissues. Silicone sheets and gels reduce scar vascularity and height. In addition, silicone sheets improve scar pliability as opposed to gels. The low level laser contributes to scar height reduction and the CO<sub>2</sub> laser improves scar pliability. Both types of lasers also reduce scar vascularity and pigmentation. None of the therapies caused adverse effects.

**Key words:** scar, physiotherapy, subacute phase, proliferation phase of healing, soft tissue mobilisation