

ABSTRACT OF BACHELOR THESIS

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Title of bachelor's thesis: The use of passive correctors for the treatment of hallux valgus in combination with individual physiotherapy

The bachelor thesis deals with the issue of hallux valgus deformity. This static deformity of the foreleg affects almost a third of the world's population and is one of the most common causes of foot pain. The deformity disrupts the kinesiology of the foot, increases the risk of falls and generally reduces the quality of life. Treatment using methods of physical therapy mainly includes active exercise and facilitation of the muscles of the foot. Hallux valgus deformity can also be treated with passive correctors.

Objectives: The main objective of the bachelor thesis is the treatment of hallux valgus deformity using a combination of passive correctors and individual physiotherapy. A partial goal is to improve the values of the measured parameters - that is, to reduce pain, increase the activity of the intrinsic muscles and reduce the size of the hallux valgus angle.

Methods: As part of the practical part, 3 patients with symptomatic hallux valgus deformity were selected according to the criteria and underwent a 30-day physiotherapy intervention. This consisted of 6 individual therapies and the daily application of a silicone corrector. The values of the hallux valgus angle and the navicular drop test were measured at the entry and exit examinations. Pain was measured subjectively using a numeric rating scale and objectively using a pressure algometer. After the intervention, the patients filled out a satisfaction questionnaire with the corrector usage.

Results: After a 30-day physiotherapy intervention, all patients experienced a reduction in pain on the numeric rating scale, especially in the load with simultaneous application of the corrector. In two patients, the values of the navicular drop test were reduced, which indicates an increased ability of the foot muscles to maintain the integrity of the foot arch.

Conclusion: The use of passive correctors in combination with individual physiotherapy has a positive effect on pain reduction and activation and strengthening of the intrinsic and extrinsic muscles of the foot in individuals with mild hallux valgus deformity.

Keywords: hallux valgus/bunion, physiotherapy/physical therapy, silicone toe spreader/ toe spacer, active exercise, foot core system