

## **Abstract**

**Title:** The effect of regular training in Locomat system changing the stereotype of gait of patients after the cerebrovascular accident

**Objectives:** The purpose of this thesis is to evaluate whether it is appropriate to use the Locomat system in therapy of gait of patients after the cerebrovascular accident, what is the effect of regular training of these patients in the Locomat system on their stereotype of gait and whether the training in the Locomat system of patients after the cerebrovascular accident is more effective in comparison with other physiotherapeutic practices.

**Methods:** The thesis was processed in the Kladruby Rehabilitation Centre on 14 probands, who were divided after the entrance examination in order to form two equivalent homogenous groups. The first group of seven members was experimental, the second one was control. At the beginning of the study the rate of gait disorder was specified at each proband using standardized method of Wisconsin Gait Scale, they also underwent 10 – Meter Walk Test and 6 – Minute Walk Test. Afterwards all the probands absolved a three-week lasting standard regime of rehabilitation. The probands of research groups absolved except the rehabilitation regime during this time period regularly 5x times a week fifteen 30-minute lasting therapy units in the system of Locomat. At the end of the study, each proband was determined a level of problems with walking through the same methods as at the entrance examination and the results were analysed.

**Results:** It is certain that on basis of the final results the usual training with the help of the Locomat system is suitable for the walking therapy for patients after cerebrovascular accident and that it has a positive influence on walking stereotype, and improves it as well. The question, whether the walking training after the cerebrovascular accident is more effective with the Locomat system than with other ones, cannot be, on the basis of gained results, responded that easily. It is certain that the Locomat system is an irreplaceable helper that saves the energy of physiotherapists and it can ensure better control and rightness of the exercises.

**Keywords:** cerebrovascular accident, Locomat, hemiparesis, walking, physiotherapy