Abstract

Title: The influence of medically focused compensating program on postural stability and other selected aspects on patients with unilateral transfemoral amputation.

Objectives: Goal of this research was to find out if medically focused compensating program would have any influence on postural stability of unilateral, transfemoral amputees. As next objective, it was studied if any intervention would have any significant influence on changes in shape or physiology of the foot or if there would be any anomalies in tests of the functions of the leg muscles.

Methods: Research group consisted of four participants (3 men and 1 woman by the mean age of 44,5 years). Participants undergone intervention in the form of medically focused compensation program, which went on for 8 weeks. Before the start of the program as well as after the end of the program the objective measuring tests were conducted. These tests consisted of measuring the postural stability of the participants and shape of the foot with FootScan device (RSscan International). Furthermore, the functioning of the muscles was determined by tests that focus on function and physiology of the leg muscles. Last but not least, survey was conducted as well to provide further information. All the data collected were processed by tables or graphs using Microsoft Excel 2016.

Results: Only one participant showed improvement in postural stability (in every test conducted that was connected to the posture) after the intervention. Other three participants showed improvement only in few of the tests. However, these improvements were minimal, within the range of 10 millimeters. Furthermore, none significant changes occurred during the measurements of the shape of foot - anomalies ranged within tenths of millimetres. During the function tests, the intervention showed to have minimum effect on the outcome of the test, apart from one measurement conducted on one participant.

Keywords: postural stability, foot, exercise, people with special needs