

Vpliv vadbe v napravi e-go na izboljšanje ravnotežja in hoje pri pacientu po možganski kapi – poročilo o primeru

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Uvod: Funkcija hoje je eden najpomembnejših dejavnikov kakovosti življenja in glavni cilj pacientov po možganski kapi v času rehabilitacije. Moteno dinamično ravnotežje pri pacientih po možganski kapi je povezano z večjo pogostostjo padcev, kar negativno vpliva na samostojno izvajanje dejavnosti vsakodnevnega življenja (1). Razvit je bil prototip naprave za urjenje dinamičnega ravnotežja med hojo, imenovane E-go (2). Namen prispevka je bil ugotoviti vpliv vadbe z napravo E-go kot dodatek običajni fizioterapiji na ravnotežje in funkcijo hoje pri pacientu po možganski kapi. **Metode:** 44-letni pacient je petkrat na teden vadil hojo v napravi E-go, poleg tega je bil deležen fizioterapevtske obravnave po uveljavljenih nevrotapevtskih metodah. Pred začetkom in ob koncu tritedenske vadbe v napravi E-go je bil pacient testiran z Bergovo lestvico za oceno ravnotežja, z lestvico za oceno ravnotežja po možganski kapi (angl. Postural Assessment Scale for Stroke – PASS), z lestvico kategorij funkcionalnega premikanja (angl. Functional ambulation category – FAC), testom hoje na 10 metrov in s šestminutnim testom hoje. **Rezultati:** Po obravnavi so se izboljšali vsi rezultati prej navedenih testov. Izboljšala sta se ravnotežje po Bergovi lestvici (pred vadbo: 6 točk; po vadbi: 10 točk) in lestvici PASS (pred vadbo: 14 točk; po vadbi: 25 točk) ter sposobnost hoje po FAC-u (pred vadbo: stopnja 0; po vadbi: stopnja 2). Pacient je bil ob koncu obravnave sposoben hoje z eno berglo in plastično peronealno ortozo za gleženj in stopalo, potreboval je zmerno asistenco ene osebe. **Zaključek:** Prednosti vadbe v napravi E-go so, da ta omogoča delno razbremenitev telesne teže glede na trenutno funkcijsko stanje pacienta in nadzor hitrosti hoje, ki jo določa fizioterapevt prek krmilnega modula ter jo lahko sproti prilagaja. Naprava pri vadbi z manjšo stopnjo opore omogoča tudi kardio-respiratorno vadbo in tako izboljšuje pacientovo telesno vzdržljivost. Možna je vadba hoje na daljše razdalje tudi pri pacientih z večjimi omejitvami gibanja, ki bi drugače s terapevtovo izdatno pomočjo prehodili le nekaj metrov, tako pa naprava precej razbremeni fizioterapevta.

Ključne besede: motorizirana naprava E-go, hoja, ravnotežje, možganska kap.

Effect of the e-go device on the recovery of balance and gait in a hemiparetic stroke patient – case report

Background: For stroke patients gait function is one of the most important factors influencing their quality of life and it is their main goal in rehabilitation. Impaired dynamic balance after stroke is related to higher frequency of falls, and has a negative impact on the activities of daily living (1). Therefore a prototype of a device for dynamic balance training during walking (E-go) was developed (2). The aim of the study was to establish an effect of training with this device on a stroke patient. **Methods:** A 44-year-old male patient trained walking with the E-go device 5 times per week and was also included into regular neurotherapeutic treatment. Prior and after the 3 weeks of training with the E-go device, the patient was tested with the following: Berg Balance Scale, Functional ambulation category (FAC), Postural Assessment Scale for Stroke (PASS), 10-meter walk test and 6-minute walk test. **Results:** The results of all of the above-mentioned tests improved. In the end, the balance improved according to the Berg Balance Scale (before: 6 point; after: 10 point), as well as the scale PASS (before: 14 point; after: 25 point). The ability of walking also improved (FAC – before: 0, after: 2). At the end of the treatment, the patient was able to walk with one crutch and a plastic peroneal ankle-foot orthosis. He needed moderate assistance of one person. **Conclusion:** Training with the E-go device enables different levels of supporting force on the pelvis according to the patient's current functional state, and enables to control the walking speed that is supervised by a physiotherapist. With the lower level of supporting force the device offers cardiovascular training and thus improves the patient's physical endurance. The device enables gait training on longer distances also for patients with larger movement disabilities and therefore significantly facilitates the physical therapists' work.

Key words: mechanical device E-go, gait, balance, stroke.

Literatura/References:

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