



POSTURAL CONTROL AND BALANCE REACTIONS IN PATIENTS WITH ISCHEMIC STROKE IN THE CHRONIC PERIOD



Dance Vasileva¹, Daniela Lubenova², Marija Mihova³

¹Faculty of Medical Sciences, University "Goce Delčev", Štip, Macedonia

² Department of Kinesitherapy and rehabilitation - National Sports Academy "Vasil Levski", Sofia, Bulgaria

³ Faculty of Computer Sciences and engineering – University "Ss.Kyril and Methodius" – Skopje, Macedonia

OBJECTIVE

The aim of this study was to investigate the influence of specialized kinesitherapeutic methodology (SKTM) on static and functional balance reactions in patients with ischemic stroke in the chronic period, which is developed on the grounds of the principles of motor control, motor learning and modern guidelines to neurodevelopmental treatment (NDT).

MATERIALS AND METHODS

In the study were included 11 patients with chronic right-sided (63.6%) and left-sided (36.4%) hemiparesis after ischemic stroke within 3 months. Investigated persons are measured on the test performance of Berg (Berg Balance Scale-BBS) at the beginning of the 10th day, 1st month and 3rd month.

Patients after 10-day daily physical therapy continued with an adapted program for home rehabilitation and requirements for it.

RESULTS

A significant change in the mean was found of static and functional balance with the crisper changes in the value of 10 days (Fig.3). In Fig. 4 shows the changes in the balance possibilities of the monitored patients being referred to the difference in performance between the 1st and the 10th day, the 1st day and 1st month and the 1st day and 3rd month.

DISCUSSION

From the present study establishing that SKTM has a tendency to improve static and functional balance in patients studied. The exercise of the unaffected upper limb during sitting, in which patients are trained to transfer the burden of the body (arm's length), have a positive effect on the seating balance. The exercises in symmetrical standing and seating have a positive effect on the lateral distribution of the burden during these changing situations and the speed of implementation of these activities.

CONCLUSIONS

The applied by us methodology continued later as an exercise program at home, is with tendency to improve postural control and balance reactions in patients with ischemic stroke in the chronic period.

Keywords: Static balance, Functional balance, Kinesitherapy, Ischemic stroke, Chronic period



Fig.1 and 2: Percentage preview of distribution by sex and localization of paralysis in patients with ischemic stroke in chronic period

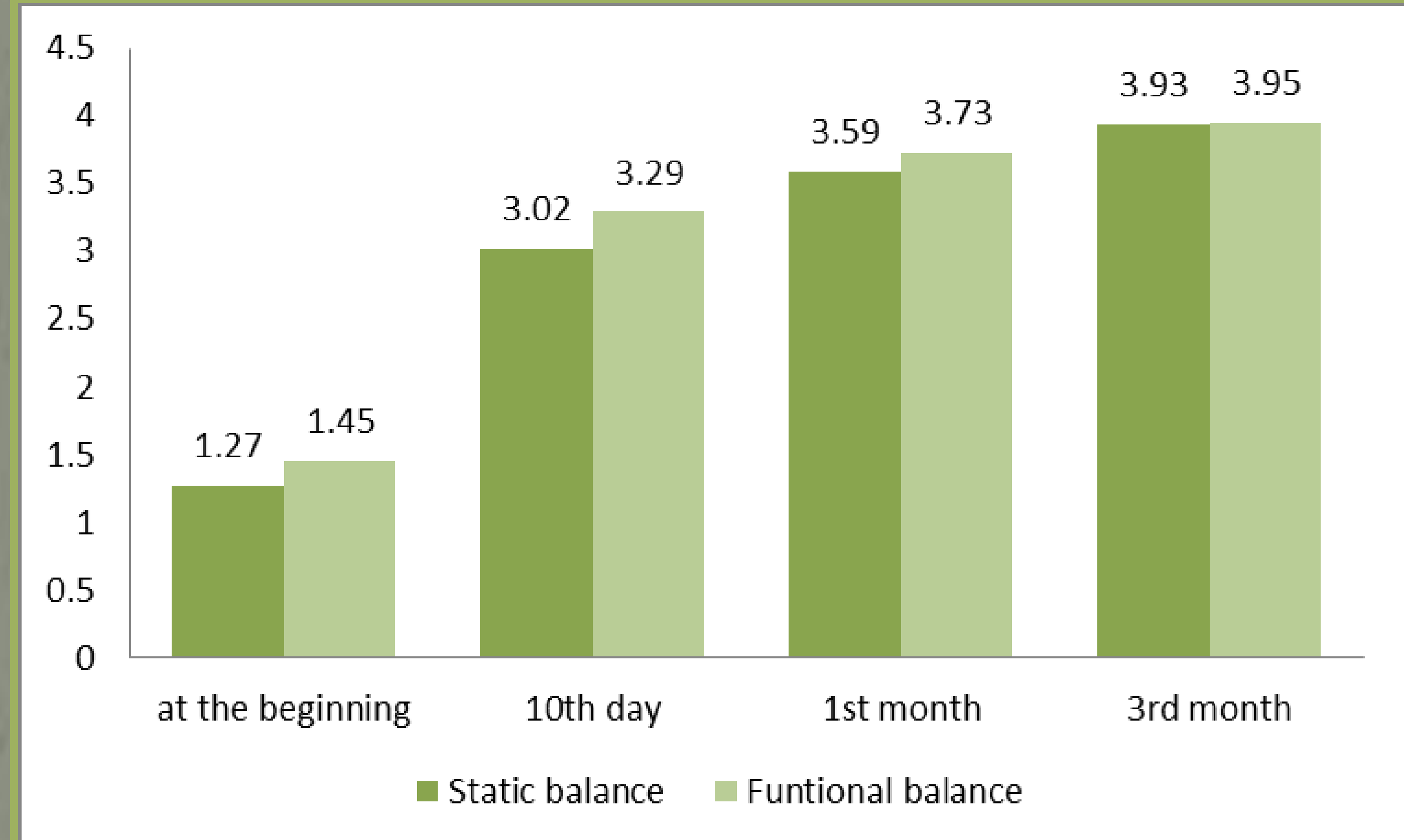


Fig.3: Graphs preview of the mean on the test performance of Berg (Berg Balance Scale-BBS) at the beginning of the 10th day, 1st month and 3th month.

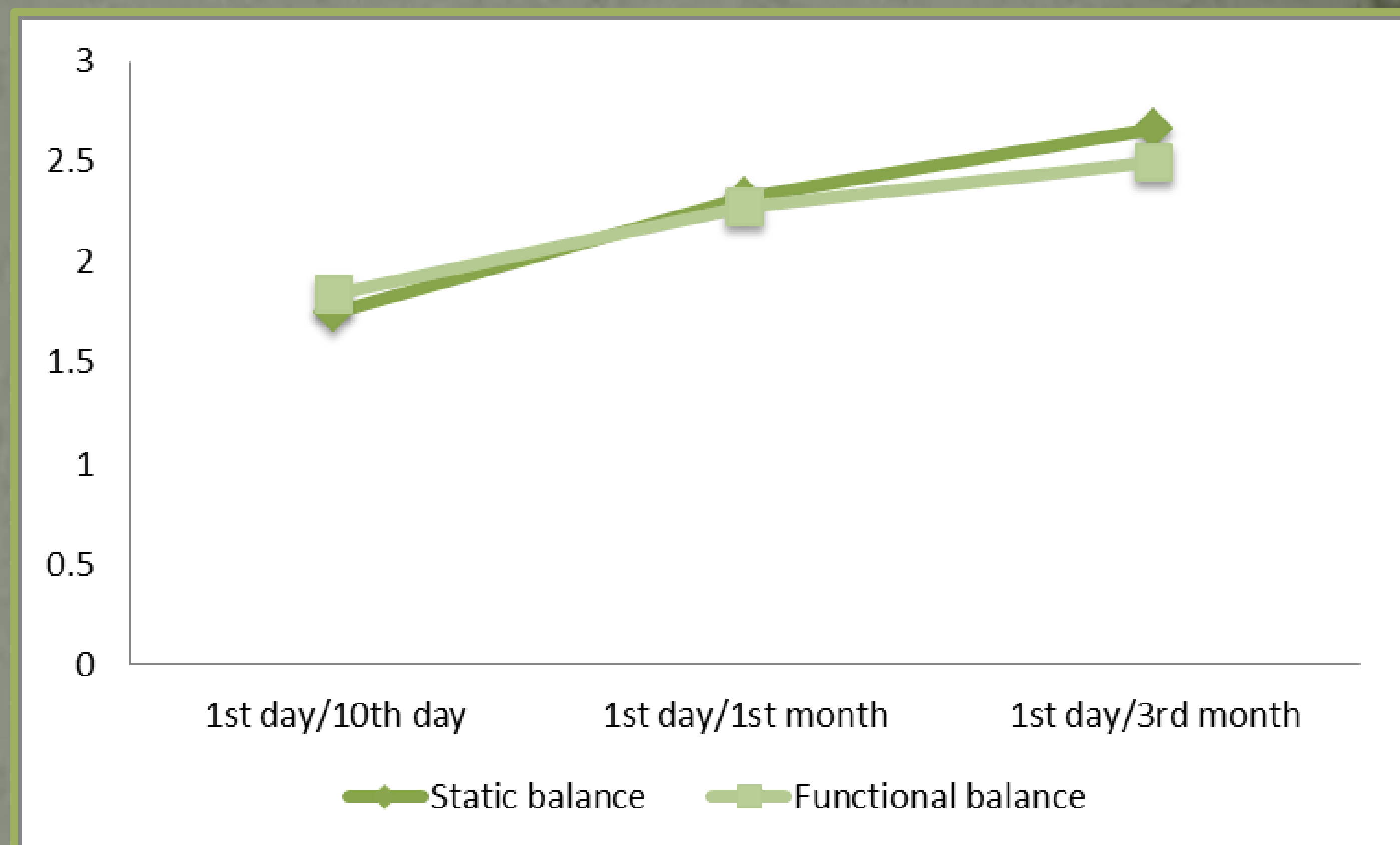


Fig. 4 Graphical presentation of the changes in mean values on static and functional balance after the applied methodology

Address for correspondence:
Teaching assistant Dance Vasileva, MSc
Faculty of Medical Sciences
University "Goce Delchev" - 2000 Shtip, Macedonia
Email: dance.vasileva@ugd.edu.mk
Associate Professor Daniela Lubenova, PhD, Associate Dean
Faculty of Kinesitherapy, Tourism and Sport animation
National Sports Academy "Vasil Levski" - 1000 Sofia, Bulgaria
Email: lubenova@abv.bg

