

Version 1.3

14apr2023

WSC Abstract 2023

Title: Persistent low physical activity after stroke and risk of new vascular event or death

Authors:

Andreas Gammelgaard Damsbo, MD^{1,2}, Rolf Ankerlund Blauenfeldt, MD^{1,2}, Søren Paaske

Johnsen, MD PhD³, Grethe Andersen, MD DMSc^{1,2}, Janne Kaergaard Mortensen, MD PhD^{1,2}

1: Danish Stroke Centre, Department of Neurology, Aarhus University Hospital, Skejby,
Denmark

2: Faculty of Health, Department of Clinical Medicine, Aarhus University, Denmark

3: Danish Center for Health Services Research, Department of Clinical Medicine, Aalborg
University, Denmark

Abstract word count: 248 (max 250)

Background and aims

Physical activity (PA) reduces cardiovascular risk. We aimed to investigate the relation between low PA before and after stroke and long-term risk of vascular events or death.

Methods

We assessed pre- and post-stroke PA in patients with first-ever ischemic stroke using the Physical Activity Scale for the Elderly (PASE) questionnaire at stroke admission and after 6 months, respectively. Covariates includes clinical data, stroke severity and functional status prestroke. Main outcome was a composite endpoint of new cardiovascular events (myocardial infarction, stroke or transient ischemic attack) or any cause of death from 6 months after stroke. Main exposure was PASE-score in the lowest quartile both pre- and post-stroke (low-PA-group). Data was analysed using a multivariate Cox proportional-hazards model.

Results

In total, 490 patients with available PASE-scores were included from The Efficacy of Citalopram Treatment in Acute Ischemic Stroke (TALOS) trial. Median age (interquartile range) was 68 (58; 76), 170 (35 %) were female, and 48 (9.8 %) patients were in the low-PA-group.

In the median follow-up period of 6.9 (5.7; 7.7) years, 11.3 events per 100 patient years occurred in the low-PA-group vs 4.66 among the rest (adjusted hazard ratio: 1.72 (confidence interval: 1.07; 2.77)).

Conclusion

Patients with continued low levels of PA before and after stroke were at a higher long-term risk of composite outcome of new cardiovascular events or death compared to patients with changed PA level or continuously higher levels. This low-PA-group may constitute a special group for future interventional trials.