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POSTURAL BALANCE, ANXIETY AND MOTOR FUNCTION AFTER STROKE, AT VERY EARLY SUPPORTED DISCHARGE WITH CONTINUED REHABILITATION

Akademisk avhandling

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av

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Avhandlingen baseras på följande delarbeten

I. Rafsten L, Danielsson A, Sunnerhagen KS. Anxiety after stroke: A systematic review and meta-analysis. J Rehabil Med. 2018:50(9):769-778

II. Rafsten L, Danielsson A, Nordin A, Björkdahl A, Lundgren-Nilsson A, Larsson MEH, Sunnerhagen KS. Gothenburg Very Early Supported Discharge study (GOTVED): a randomised controlled trial investigating anxiety and overall disability in the first year after stroke. BMC Neurol. 2019 Nov 9

III. Rafsten L, Meirelles C, Danielsson A, Sunnerhagen KS. Impaired Motor Function in the Affected Arm Predicts Impaired Postural Balance After Stroke: A Cross Sectional Study. Front Neurol. 2019 Aug 21;10:912

IV. Rafsten L, Danielsson A, Sunnerhagen KS. Self-perceived postural balance correlates with postural balance and anxiety during the first year after stroke: a part of the randomised controlled GOTVED study. *Submitted manuscript*

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POSTURAL BALANCE, ANXIETY AND MOTOR FUNCTION AFTER STROKE, AT VERY EARLY SUPPORTED DISCHARGE WITH CONTINUED REHABILITATION

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Abstract

The overall aim of this thesis was to investigate postural balance, anxiety and motor function the first year after stroke and whether postural balance, anxiety and motor function was different at the intervention of Very Early Supported Discharge (VESD) compared to routine discharge during the first year post stroke.

Methods. In paper I a systematic review and a meta-analysis was performed in order to study presence of anxiety after stroke. Paper II and IV included material from the Gothenburg Very Early Supported Discharge study, a randomised controlled study where 140 patients with stroke admitted to a stroke unit at Sahlgrenska University Hospital were consecutively included. Paper II investigated whether VESD affects anxiety and the overall disability compared with ordinary discharge routines. In paper III data from two different data sources was merged to investigate if there was any association between function in the affected arm and postural balance. In Paper IV the correlation between self-confidence in postural balance, observer assessed postural balance and anxiety during the first year after stroke was investigated. The impact of the intervention on the correlation was also examined. Assessments were made 5 days after stroke onset, 1 day and 1 month after discharge, 3- and 12 months post stroke.

Main results. The systematic review showed that the overall pooled prevalence of anxiety after stroke was 29.3 %. There was no difference in anxiety if you received VESD or ordinary rehabilitation, but the VESD led to a faster improvement of overall disability compared to ordinary rehabilitation. The motor function in the affected arm significantly correlated with the postural balance the first year post-stroke. There was a significant correlation between self-confidence in postural balance and observer assessed postural balance. Between anxiety and self-confidence in postural balance, there was only a small correlation.

Conclusions and clinical implications. About a third of patients experiencing anxiety in the first year after stroke. Since anxiety influence quality of life and is a predictor of depression, routine screening would be worth considering in the stroke care. VESD did not show any harm or unintendent effects, but on the contrary led to a faster improvement in overall disability. We therefore suggest that coordinated VESD for patients with mild to moderate stroke should be considered as part of the service from a stroke unit. The result that motor function in the affected arm associated with the postural balance in a late stage after stroke can be of clinical importance to be aware of in assessment and planning the rehabilitation of postural balance. Patients with mild stroke seemed able to assess their confidence in postural balance, involved in daily activity performance, in line with observer assessed postural balance. Assessment of self-confidence can provide important information useful in rehabilitation planning and support patients regarding physically active after discharge.

Keywords: Stroke, Rehabilitation, Postural balance, Upper extremity, Motor function, Anxiety, Outcome, Physical therapy, Assessment

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