Symposium: Interventions for persistent symptoms after concussion and whiplash injuries.

General information

Title of the symposium: Interventions for persistent symptoms after concussion and whiplash injuries.

Organized by: Mille Møller Thastum

Chair: Mille Møller Thastum

Brief description of symposium

Persistent symptoms after concussion and whiplash injuries are a significant public health concern, but there is a lack of evidence based treatment. This symposium will begin by presenting a recent systematic review of common interventions for persistent post-concussion symptoms (PCS). Then, two randomized controlled trials testing the effect of novel interventions for persistent PCS and persistent symptoms after whiplash, respectively, will be presented. Perspectives for future research will be adressed.

Presentation 1

Title: Non-pharmacological treatment of persistent post-concussion symptoms: a systematic review and meta-analyses

Presented by: Hana Malá, Associate Professor, PhD; Danish Concussion Centre, Copenhagen.

Abstract:

Purpose: To systematically assess and summarize evidence for effectiveness of non-pharmacological interventions for persistent post-concussive symptoms (PPCS) in adults. The interventions were provision of early information and advice, graded physical exercise, vestibular rehabilitation, manual treatment of neck and back, oculomotor vision therapy, psychological treatment, and interdisciplinary coordinated rehabilitative treatment.

Methods: We performed a systematic literature search of best available evidence covering the period from the earliest possible publication year up to 2020. We extracted data from individual studies, assessed their quality and performed meta-analyses. Only randomized controlled trials (RCTs) were included.

Results: The available evidence was limited, however, we found relevant individual RCTs for all interventions, except the oculomotor vision therapy. Meta-analyses indicated beneficial effects for selected outcome measures.

Conclusion: The evidence base for non-pharmacological treatment of PPCS is growing, although it is still limited. There is a pressing need for well-designed studies regarding non-pharmacological treatment strategies.

Presentation 2

Title: Early intervention for impairing post-concussion symptoms in adolescents and young adults: results from a randomized trial.

Presented by: Mille Møller Thastum, neuropsychologist, PhD; Hammel Neurorehabilitation and Research Centre.

Abstract:

Up to 15 % continue to experience impairing post-concussion symptoms (PCS) for more than 3 months after injury, and these individuals are at risk of developing chronic symptoms. The aim of this study was to test the efficacy of Get going After concusIoN (GAIN), an 8-week interdisciplinary intervention for young patients (15-30 years) with persistent PCS 2-6 months post-injury. Participants (n=112) were randomly assigned (1:1) to either Enhanced Usual Care (EUC) or GAIN. Self-report questionnaires were filled out at inclusion (baseline), end of intervention, and 3-month follow-up (FU). The primary outcome measure was Rivermead Post-concussion symptoms Questionnaire (RPQ). At 3-month FU, patients allocated to GAIN (n=57) reported a significantly larger reduction of PCS compared to patients allocated to EUC (n=55). Thus, GAIN may prevent long-term disability. Currently, another randomised controlled trial testing the effect of GAIN in municipality settings and in a broader age range (18-60 years) is prepared.

Presentation 3

Title: Value-based Cognitive Behavioral Therapy for the Prevention of Chronic Whiplash Associated Disorders: A Randomized Controlled Trial

Presented by: Tonny Elmose Andersen, cand. psyk., PhD; Department of Psychology, University of Southern Denmark.

Whiplash is a common traffic-related injury with up to 50% still experiencing symptoms one-year post-injury. Unfortunately, conservative treatments have not proven high effectiveness in preventing chronic symptomatology. The aim of this study was to test the effectiveness of an early value-based cognitive-behavioral therapeutic intervention (V-CBT) in preventing chronic symptomatology. The study was a two-armed randomized controlled trial using a cross-over design. Patients (n=91) with persistent pain and disability were randomized < 6-months post-injury to 10 sessions of V-CBT starting 1-week (group A) or 3-

months (group B) post-randomization. The primary outcome was disability evaluated at baseline and at 3, 6, 9, and 12-months post-randomization. At 3-months, group A had achieved significant better effects on all outcomes compared to group B. When group B received the intervention at 6-months post-randomization, they also achieved significant effects on all outcomes. However, at 12-months group B increased their disability levels, while group A remained stable.