Symposium: National study on young brain injury survivors

Organized by : Trine Ryttersgaard

Chair: Trine Okkerstrøm Ryttersgaard

This symposium will present results from the Danish national project: "National study on young brain injury survivors", which was founded by the Danish Ministry of Health in 2012. The aim of the study was to investigate rehabilitation needs and to recommend further rehabilitation services among adolescents and young adults (age 15-30 years) with acquired brain injury. Five regional outpatient clinics were established, and a Danish Clinical Quality Database was created.

Presentation 1

Title: Danish register for young adults with acquired brain injury

Presented by: Trine Okkerstrøm Ryttersgaard, Neuropsychologist, PhD student, Department of Neurology, Aalborg University Hospital

Abstract: The first talk will introduce the background for the national project as well as the organization and the elements in the study. Furthermore, the talk will describe the establishment of the Danish Clinical Quality Database "Danish register for young adults with acquired brain injury" (Danish acronym: DRUE), which comprises interdisciplinary assessments of disabilities, impairments, along with patient-reported outcomes and labour market attachment.

Presentation 2

Title: Disability after acquired brain injury in adolescents and young adults: development and validation of a clinical prediction model

Presented by: Maja Søndergård Worm, MD, PhD student, Department of Neurology, Rigshospitalet, University of Copenhagen, Department of Occupational and Environmental Medicine, Bispebjerg and Frederiksberg Hospital, University of Copenhagen

Abstract: Numerous models to predict disability have been developed and validated for acquired brain injury (ABI) with a focus on pre-, peri-, and early post-injury factors. Nevertheless, it is essential to identify core predictors of disability from the post-acute pathway, to guide decision-making in outpatient neurorehabilitation clinics. The aim of this study was therefore to develop and validate a prognostic model for disability among young patients with ABI. Within a nationwide cohort of 446 15-30-year-old ABIpatients, we predicted disability in terms of Glasgow Outcome Scale - Extended (GOS-E) one year after baseline assessment in outpatient neurorehabilitation clinics. 22 potential predictors were chosen which covered socio-demographic and injury-related factors as well as interdisciplinary assessments and patientreported sequelae. Low GOS-E and Functional Independence Measure along with high mental fatigue predicted disability. The model showed high validity and performance and may be an effective tool in assessment of young patients in neurorehabilitation clinics.

Presentation 3

Title: Depression and cognitive sequelae among Danish adolescents and young adults (15-30 years old) with moderate to severe traumatic brain injury

Presented by: Trine Okkerstrøm Ryttersgaard, Neuropsychologist, PhD student, Department of Neurology, Aalborg University Hospital

Abstract: Depression and cognitive sequelae are well known sequelae after moderate to severe traumatic brain injury (TBI) but to the best of our knowledge prospective studies among adolescents and young adults are very sparse. The third talk will present results from a prospective study on depression and cognitive sequelae among Danish adolescents and young adults with an intracranial traumatic brain lesion, who were examined the first time less than a year after the injury. The aim with the study was to examine the development of depression, cognitive sequelae and global functional outcome from the first visit to control one-year later. The study reveals that young TBI survivors with depression and/or cognitive sequelae consistently had a lower global functional outcome compared to the young TBI survivors without depression and cognitive sequelae.

Presentation 4

Title: Future perspectives

Presented by: Maja Søndergård Worm, MD, PhD student, Department of Neurology, Rigshospitalet, University of Copenhagen, Department of Occupational and Environmental Medicine, Bispebjerg and Frederiksberg Hospital, University of Copenhagen

Abstract: Based on our findings we round off the symposium with a series of suggestions on how rehabilitation efforts might be developed and improved for this particularly vulnerable group of young survivors of acquired brain injury.