

## **THE INCIDENCE AND DETERMINANTS OF SLEEP APNEA SYNDROME IN PATIENTS WITH SPINAL CORD INJURY AND STROKE**

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Objective: To determine the amount of patients with stroke and spinal cord injury having sleep apnea during their clinical stay in a rehabilitation centre and to assess the determinants of sleep apnea in this group. Methods: The Sleep Apnea Hypopnea Index (AHI) during sleep was determined in 30 patients with spinal cord injury and 65 patients with stroke and related to age, Body Mass Index (BMI), Epworth Sleepiness Scale (EPSS) and Desaturation Index (DI). Results: 33/65 (50,8%) of the stroke patients and 8/30 (26,7%) of the patients with spinal cord injury had an AHI  $\geq 5$ , defined as sleep disordered breathing, combined with a Apnea Index (AI) of 5 or more, diagnosed as a sleep apnea syndrome. Regression analyses showed no significant correlation between AHI and EPSS score in both groups. There was a significant correlation between AHI and DI of 0,944 ( $p < 0.0001$ ) in both groups. There was a significant correlation between AHI and BMI ( $p = 0.028$ ) as well as AHI and age ( $p = 0.007$ ) in the group of stroke patients. There was no significant correlation between AHI and BMI as well as AHI and age in the group of spinal cord injury. Most of the apneas were characterized as obstructive in both groups. Conclusion: Incidence of SAS is high in patients with stroke (50,8%) and spinal cord injury (26,7%). In Both groups the best predicting factor for having sleep apnea syndrome is the Desaturation Index, easy to determine during overnight pulse oximetry.