

## **SLEEP-RELATED BREATHING DISORDERS IN PATIENTS WITH ISCHEMIC STROKE AND TRANSIENT ISCHEMIC ATTACKS: RESPIRATORY AND CLINICAL CORRELATIONS**

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**Aim:** The aim of the study was to assess the prevalence and severity of the sleep related breathing disorders (SRDB) in patients with transient ischemic attacks (TIA) and ischemic stroke.

**Material and methods:** Seventy patients (mean age  $66.2 \pm 10.7$  years; 60 males 10 females, 55 patients with stroke and 15 patients with TIA) were screened for SRBD in the first 7 days after stroke or TIA. Recordings were done with a portable 8 channel recorder. The following parameters were analyzed: Apnea Hypopnea Index (AHI) and Desaturation Index (DI). The clinical status was assessed on admission and discharge with National Institute of Health Stroke Scale (NIHSS). The patients with stroke were stratified according to the AHI into groups: without SRBD (AHI<5), with mild SRBD (AHI >5-<10) and with moderate or severe SRBD (AHI>10). Clinical parameters: age, BMI, cardiovascular risk factors were analyzed.

**Results:** SRBD (AHI>5) were present in 36 (65.4%) patients with stroke and in 10 (66.6 %) patients with TIA (not significant percentage difference; NS). The mean AHI in patients with stroke and TIA were  $14.0 \pm 15.9$  and  $10.5 \pm 10.6$ , respectively (NS). There were no differences between the patients with stroke and TIA in the following parameters: age, BMI, and cardiovascular risk factors. There were significant differences between the patients with stroke with mild and moderate or severe SRBD in the clinical status on admission quantified with NIHSS. AHI correlated with a NIHSS score on admission in the group of patients with stroke ( $r=0.54$ ,  $P<0.01$ ). The patients with moderate or severe SRBD had a mean DI significantly greater than those with mild SRBD  $27.2 \pm 19.0$ ;  $5.8 \pm 3.2$ , respectively ( $P<0.01$ ). DI correlated with a NIHSS score on admission in the patients with stroke ( $r=0.46$ ,  $P<0.001$ ). A final NIHSS score was significantly greater in the patients with moderate or severe than in those with mild SRBD:  $3.6 \pm 1.9$  and  $2.8 \pm 1.2$ , respectively ( $P<0.01$ ).

**Conclusions:** Our data suggest that SRBD and associated with them nocturnal desaturation falls correlate with the clinical status on admission and influence the clinical outcome after ischemic stroke.