

The impact of unexpected sleep-disordered breathing on patients with newly diagnosis generalized anxiety disorder: a case-control study in Taiwan

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Objective: Generalized anxiety disorder (GAD) and sleep-disordered breathing (SDB) share similar symptoms, such as poor sleep quality, irritability, and poor concentration during daily activities. Some evidence has reported a bidirectional relationship between anxiety disorders and SDB. The aim of this study is to examine the impact of unexpected SDB in patients with newly diagnosed GAD.

Methods: This prospective case-control study included patients newly diagnosed with GAD from a psychiatric clinic and healthy controls from the local community. All participants completed questionnaires for sleep and mood symptoms and a resting 5-min heart rate variability (HRV) examination during enrollment. They also used a validated home sleep test device to detect unexpected SDB. An oxygen desaturation index (ODI) ≥ 5 was considered indicative of SDB.

Results: Total 56 controls and 47 newly diagnosed GAD participants (mean age 55.1 ± 12.04 years) were included. There was no significant difference in the proportion of unexpected SDB in the control and GAD groups (46.43% vs 51.06%). Patients with comorbid GAD and SDB had higher Beck Anxiety Index (BAI) scores (23.83 ± 11.54) than those without SDB (16.52 ± 10.61). Patients with GAD had worse Pittsburgh Sleep Quality Index (PSQI) scores than controls, regardless of SDB comorbidity. Both the control and GAD groups with SDB had lower global autonomic function than the control group without SDB, as evidenced by the HRV results. Backward stepwise regression analysis indicated that age and body mass index (BMI) were the two major risk factors for ODI.

Conclusion: The study revealed that nearly 50% of participants with average age 55 in both the GAD and control groups had unexpected SDB. Among patients with GAD, those with unexpected SDB had more severe anxiety symptoms than those without. Furthermore, age and BMI were considered risk factors for unexpected SDB.

中文題目：非預期性睡眠呼吸中止症對於初診斷廣泛性焦慮症患者的影響

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