

Polysomnographic Assessment of Sleep in Patients with Panic Disorder

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Introduction: The Characteristic abnormalities in sleep architecture and sleep continuity have not been well-described for patients with panic disorder perhaps due to the absence of insomnia, as a diagnostic criterion for the disorder as well, these complaints have proven difficult to "validate" in the sleep laboratory. **Aim:** Polysomnographic assessment of sleep architecture and sleep continuity in patients with panic disorder. **Methods:** Objective and subjective sleep quality was investigated in 20 drug free panic disorder patients selected according to ICD-10 research diagnostic criteria as compared with 20 age and sex matched normal controls by means of polysomnography and psychometry. **Results:** patients with panic disorder have impaired sleep quality. A reduction of SWS percentage, mainly due to diminished amounts of stage 4, together with an increase in both stage 1 and stage 2 of NREM sleep were noted. There was a significant correlation between the changes of sleep latency, sleep efficiency, and arousal index and both anxiety and depressive symptoms.

Introduction:

While the Characteristic abnormalities in sleep architecture and sleep continuity have been well-described for patients with major depression, the study of the sleep in anxious patients has been relatively neglected (Stein et al., 1993b), but in recent years the study of electroencephalographic (EEG) sleep has been extended to include other disorders such as schizophrenia (Kunshnir et al. (1990), Keshavan et al., 2004), dementia (Reynolds et al., (1988), Reynolds et al., (2005), and anxiety disorders (Mellman and Uhde, 1990, Papadimtrium and Linkousla, 2005). All types of anxiety (e.g. generalized anxiety, obsessive-compulsive disorders, and panic disorder) are associated with sleep disorders such as early insomnia, sleep interruption and low efficiency of sleep (Souetre, 1990, De Zee et al., 2005). Stein et al. (1993a) and Brown et al. (2002) found that approximately two-thirds of sleep panic attacks patients suffered clinically from less sleep movement on their panic nights than did other anxious patients. Mellman and Uhde (1990) suggested that 67% of PD patients report insomnia as a regular and pervasive problem. While Saletu (2002) demonstrated that 80% of patients with PD suffered from insomnia and decrease sleep efficiency. Other studies have noted the incidences of sleeping problems among PD patients, perhaps due to the absence of insomnia, as a diagnostic

criterion for the disorder (Sheikh et al., 2003). Central fear systems are the set of brain regions that guide and execute behavioral responses to perceived threats, and whose activation, in humans, is thought to underlie the subjective experience of fear and anxiety (Bourin and Hascoet, 2001). Kellner and Yehuda (1999) have suggested that PD may underlie central fear system abnormalities (Bremner et al., (1996), De Zee et al., (2005). There is ample evidence that sleep and fear systems interface at many levels of the neurosis (Woodward, 2000) and in light of that it is not surprising that most PD patients report sleep difficulties (Neylan et al., (1998) and De Zee et al., (2005). In PD disorder, however, these complaints have proven difficult to "validate" in the sleep laboratory (Engdahl et al., 2004). Katon 1984 and Brown 2002, found that as many as 24% of PD patients had difficulties with alcohol and 15% met criteria for alcoholism. PD Patients often have insomnia related to alcohol (Lepola et al., 1994 and Saletu et al., 2002). Drug treatment of PD may cause insomnia as a side-effect, particularly at the beginning of the treatment (Noyes et al., 1989 et al., 2004). Also the discontinuation of drug treatment may lead to sleep disturbances as withdrawal symptoms, especially if benzodiazepines are used (Schredi et al., 2002 and Cervena et al., 2005). PD patients with lifetime histories of major depression reported