LETTERS TO THE EDITOR

Changes in REM Sleep Following Trauma Likely Significant

Response to Gupta and Pur. Prolongation of REM sleep latency in nightmare disorder may indicate subtle REM sleep fragmentation and decreased REM sleep propensity. *J Clin Sleep Med*. 2018;14(8):1441.

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In his letter to the editor, Gupta alluded that the prolonged rapid eye movement (REM) sleep latency seen in our nightmare disorder (NDO) cohort could be an early marker for underlying psychiatric comorbidities, such as posttraumatic stress disorder (PTSD).^{1,2} We concur that REM sleep abnormalities in patients with nightmares and trauma related nightmares are likely significant. REM fragmentation has been described following traumatic events, with increased REM density seen in patients with PTSD.³ However, Mellman et al. reported no difference in REM latency in recent civilian trauma survivors comparing those who developed PTSD versus those who did not.⁴ In this study, polysomnography was performed within 30 days of the patient's traumatic experience and they were not taking medications that could affect the central nervous system. Conversely, in our cohort, the confounding variables of comorbid sleep-disordered breathing and medications (eg, antidepressants, antipsychotics) which are frequently used to treat patients with PTSD may have contributed to the increased REM latency in patients with PTSD. However, our patient's traumatic experiences were likely more severe, specifically combat-related, and their polysomnograms were further temporally removed from their traumatic events. These factors could have contributed to the development of the noted REM abnormalities which evolve over time. Additional research is needed to fully elucidate the changes that occur to REM sleep in patients who have undergone traumatic experiences that may contribute to the sequelae of nightmares and PTSD. Understanding these REM changes, as well as other alterations to sleep architecture and physiologic parameters in sleep are required to improve the diagnosis and treatment of trauma survivors.

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REFERENCES

1. Gupta MA, Pur DR. Prolongation of REM sleep latency in nightmare disorder may indicate subtle REM sleep fragmentation and decreased REM sleep propensity. *J Clin Sleep Med*. 2018;14(8):1441.
2. Creamer JL, Brock MS, Matsangas P, Motamedi V, Mysliwiec V. Nightmares in United States military personnel with sleep disturbances. *J Clin Sleep Med*. 2018;14(3):419–426.
3. Pace-Schott EF, Germain A, Milad MR. Sleep and REM sleep disturbance in the pathophysiology of PTSD: the role of extinction memory. *Biol Mood Anxiety Disord*. 2015;5(1):3.
4. Mellman TA, Pigeon WR, Nowell PD, Nolan B. Relationships between REM sleep findings and PTSD symptoms during the early aftermath of trauma. *J Trauma Stress*. 2007;20(5):893–901.

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DISCLOSURE STATEMENT

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