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## 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).<sup>1,2</sup> 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.<sup>3</sup> 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.<sup>4</sup> 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.

### CITATION

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#### SUBMISSION & CORRESPONDENCE INFORMATION

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#### **DISCLOSURE STATEMENT**

All authors have seen and approved the manuscript. The authors report no conflicts of interest. The opinions and assertions in this manuscript are those of the authors and do not represent those of the Department of the Air Force, Department of the Army, Department of Defense, or the United States government.