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## **Treatment of PTSD-related OSA with CPAP is associated with only a modest improvement in PTSD: Possible adjunctive treatment with mood stabilizers**

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## LETTERS TO THE EDITOR

## Treatment of PTSD-Related OSA With CPAP is Associated With Only a Modest Improvement in PTSD: Possible Adjunctive Treatment With Mood Stabilizers

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The articles by Orr and colleagues<sup>1</sup> and Lettieri and Williams<sup>2</sup> superbly highlight the complexities of managing posttraumatic stress disorder (PTSD) and comorbid obstructive sleep apnea (OSA) and underline the sometimes bidirectional nature of the relationship between OSA and some PTSD symptoms.<sup>3</sup> Orr and colleagues<sup>1</sup> examined the effect of positive airway pressure (PAP) therapy in veterans with PTSD and recently diagnosed OSA and noticed a modest improvement in PTSD severity as measured by the PTSD Checklist-Specific (PCL-S), from baseline to 6 months. There was a significant decrease (albeit below the minimum threshold to qualify as a response to treatment) in PCL-S scores from baseline to 3 months, with no significant change from 3 to 6 months. Only the percentage of nights that PAP was used (and not average hours or percentage nights with more than 4 hours of use) was predictive of improvement in PCL-S scores. These results are consistent with the decrease in sympathetic activation with PAP therapy,<sup>4</sup> which likely improved some PTSD symptoms.

The modest improvement in PTSD symptoms with continuous positive airway pressure underlines the possible contribution of hyperarousal and high levels of sympathetic activation in PTSD, that can cause sleep fragmentation<sup>1,2</sup> and increased upper airways collapsibility and OSA in patients with PTSD<sup>3</sup> that is often unrecognized. I have treated several patients with PTSD and OSA with anticonvulsant mood stabilizers such as divalproex sodium (dosage 750–1500 mg/d) for emotional regulation, because of poor response to standard pharmacotherapies for PTSD (such as antidepressants). Most of these patients were nonadherent to PAP therapy. The apnea-hypopnea index (AHI) in these patients (measured with serial home sleep testing or HST) sometimes decreased from the severe range (AHI > 30 events/h) to mild to moderate range (< 10 events/h) after a 10- to 14-day course of divalproex. The improvement in AHI was associated with a significant improvement in sleep fragmentation (increased sleep efficiency and total sleep time, decreased number of arousals per hour, decreased sleep onset latency) and clinically significant improvement in PTSD symptoms. The adjunctive use of mood stabilizers in

the management of patients with OSA, PTSD, high levels of baseline sympathetic activation, and sleep fragmentation merits further investigation.

## CITATION

Gupta MA. Treatment of PTSD-related OSA with CPAP is associated with only a modest improvement in PTSD: possible adjunctive treatment with mood stabilizers. *J Clin Sleep Med*. 2017;13(6):841.

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## DISCLOSURE STATEMENT

Dr. Gupta has indicated no financial conflicts of interest.