A Case Series on the Effectiveness of Prazosin for Managing Acute Stress Disorder

Shivani Gupta, BA[1], Elizabeth Chern, BA[1], Douglas Opler, MD[2]
[1]New Jersey Medical School, [2]Department of Psychiatry, New Jersey Medical School

BACKGROUND

The presence of ASD puts patients at risk for the development of PTSD. Improving quality of sleep is essential as poor sleep can be a factor in the development and maintenance of PTSD. Nighttime symptoms of PTSD are often treated with the α1-blocker prazosin. Since consultation-liaison psychiatrists often manage ASD in medically ill patients, including ICU patients (1), the efficacy of prazosin is a topic worthy of investigation.

While trauma-focused CBT, there is no accepted pharmacological therapy that is routinely used to prevent the progression of ASD to PTSD (2). Although hydrocortisone has been found to be moderately efficacious in preventing PTSD by attenuating hyperarousal, limited evidence and its adverse effects currently preclude routine use (3). Other agents under investigation include SSRI's, beta-blockers, and ketamine (3). Despite its use in PTSD, there is currently sparse evidence regarding prazosin's efficacy in reducing nightmares and flashbacks in ASD (4).

CASE SUMMARY

A retrospective chart review covering a 4 month period identified 3 patients experiencing ASD symptoms in the context of severe bodily injury. The 3 patients were started on prazosin at bedtime by the consultation-liaison service. All patients reported improvement in sleep with resolution of nightmares, flashbacks, and improved mood within 5 days of starting prazosin. Prazosin was well-tolerated without adverse effects.

Patient 1	39-year-old male admitted for multiple fractures following a motor vehicle accident. Within 2 days of starting bedtime prazosin 1 mg, he noted improvement in anxiety, nightmares, and sleep.
Patient 2	27-year-old male admitted with multiple injuries following a gunshot wound. Within 5 days of bedtime prazosin, titrated to 2 mg, he noticed improvements in nightmares and quality of sleep.
Patient 3	20-year-old male admitted for multiple fractures following a motor vehicle accident. Within 1 day of initiating bedtime prazosin 1 mg, he endorsed a decrease in intrusive images and flashbacks.

DISCUSSION

Initiation of prazosin in these 3 patients resulted in rapid improvement of nightmares and flashbacks. This suggests prazosin could play a role in reducing nightmares, attenuating traumatic flashbacks, and improving sleep. Improved sleep as a result of prazosin treatment may help decrease the likelihood of progression of ASD to PTSD.
There is research suggesting that the neurobiological activity implicated in memory consolidation of traumatic events may be especially malleable in the 6 hours after and may remain moldable even beyond these "golden hours" (3). It follows that pharmacological treatment that impacts this activity may represent a promising avenue of treatment and relief for patients.

CONCLUSION

Prazosin may be effective in treating both ASD and PTSD symptoms and it may play a role in inhibiting the progression of ASD to PTSD. Although it can initially present the undesirable side effects of orthostatic hypotension or syncope, prazosin was well tolerated by all patients in this case study. In patients who acclimate to its potential side effects, prazosin is an excellent choice. Early recognition and prompt treatment of hospital patients with ASD can improve long-term outcomes and limit progression towards PTSD.

REFERENCES

1) Parker AM, et al. Posttraumatic stress disorder in critical illness survivors: a metaanalysis. Critical Care Medicine. 2015;43(5):1121-9.
2) Kornør H, et al. Early trauma-focused cognitive-behavioural therapy to prevent chronic post-traumatic stress disorder and related symptoms: a systematic review and meta-analysis. BMC Psychiatry. 2008;19(8):81.
3) Astill Wright, L. *et al.* Pharmacological prevention and early treatment of post-traumatic stress disorder and acute stress disorder: a systematic review and meta-analysis. Translational Psychiatry 2019;9: 334.
4) Srivastava AA, Opler DJ. Clinical Use of Prazosin in a Patient With Acute Stress Disorder: A Case Report. Journal of Psychiatric Practice. 2020;26(3):246-248.