

[Clinical Autonomic Research](#)

June 2013

Central hyperadrenergic state after lightning strike

- [Ajay K. Parsaik](#),
- [J. Eric Ahlskog](#),
- [Wolfgang Singer](#),
- [Russell Gelfman](#),
- [Seth H. Sheldon](#),
- [Richard J. Seime](#),
- [Jennifer M. Craft](#),
- [Jeffrey P. Staab](#),
- [Birgit Kantor](#),
- [Phillip A. Low](#)

Abstract

Objective

To describe and review autonomic complications of lightning strike.

Methods

Case report and laboratory data including autonomic function tests in a subject who was struck by lightning.

Results

A 24-year-old man was struck by lightning. Following that, he developed dysautonomia, with persistent inappropriate sinus tachycardia and autonomic storms, as well as posttraumatic stress disorder (PTSD) and functional neurologic problems.

Interpretation

The combination of persistent sinus tachycardia and episodic exacerbations associated with hypertension, diaphoresis, and agitation was highly suggestive of a central hyperadrenergic state with superimposed autonomic storms. Whether the additional PTSD and functional neurologic deficits were due to a direct effect of the lightning strike on the central nervous system or a secondary response is open to speculation.