A model of post-traumatic stress disorder (PTSD)–induced insomnia in C57BL/6J mice

Omar Taranissi, Rishi Sharma and Mahesh M. Thakkar
Department of Neurology, University of Missouri/Harry S. Truman Memorial Veterans’ Hospital

Background

- Repeated exposure to stressful conditions leads to post-traumatic stress disorder (PTSD), which affects about 60% of U.S. combat veterans and 8% of U.S. adults.
- PTSD is characterized by persistent re-experiencing of the traumatic event after triggering by conditions that resemble or symbolize them.
- Hyperarousal is one of the core features of PTSD.
- Lack of suitable animal models of stress-induced PTSD with hyperarousal has limited our understanding of the underlying mechanisms and developing therapies.

The present study was designed to develop an animal model of PTSD that will display hyperarousal.

Methods

Animals: Male adult C57BL/6J mice

Surgery: Under standard surgical conditions, mice were implanted with sleep recording equipment.