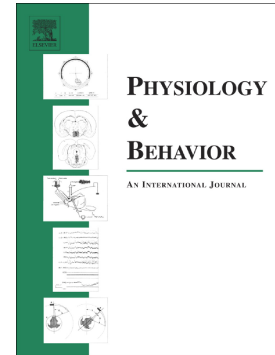


## Accepted Manuscript

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**Exposure to short photoperiod regime reduces ventral subicular lesion-induced anxiety-like behavior in Wistar rats**

Duttagupta Subhadeep, B.N. Srikumar, B.S. Shankaranarayana Rao, Bindu M. Kutty\*

Department of Neurophysiology, National Institute of Mental Health and Neuro Sciences (NIMHANS), Hosur Road, Bengaluru - 560 029, India

**\* Corresponding Author:**

Dr. Bindu M. Kutty

Professor and Head, Department of Neurophysiology

National Institute of Mental Health and Neuro Sciences (NIMHANS)

Hosur Road, Bengaluru-560029, India.

E-mail: bindu.nimhans@gmail.com; Fax: +91 080 26564830

**Highlights**

- Ventral subicular lesion (VSL) causes anxiety-like behavior in adult Wistar rats.
- VSL leads to neuronal loss in the paraventricular, suprachiasmatic and dorsomedial nuclei of the hypothalamus.
- Short photoperiod regime for 21 days ameliorates anxiety-like behavior in VSL rats.

**Abstract**

Neurodegeneration of hippocampal structures is implicated in Alzheimer's disease (AD). Patients with AD exhibit 'sundown syndrome' featuring mood swings and anxiety. Although there are studies demonstrating circadian rhythm disruption associated with sundown phenomenon, the mechanisms underlying the emotional disturbances remain elusive. In the

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