
Intensive Care Unit Psychosis-sundowning: A Challenging Phenomenon

Sir,

A unique clinical phenomenon of “Sundowning” in Intensive Care Unit (ICU) setting has been discussed inconsistently over the years despite many clinical observations documented in medical literature. Most health-care professionals define the

term “sundowning” or “ICU psychoses” as late afternoon neuropsychiatric behavior changes such as agitation, confusion, disorientation, associated with or without delirium. It is a phenomenon of the emergence of behavioral disturbances during the afternoon and evening hours.^[1]

Sundowning is a syndrome in elderly that usually occurs in the night and is identified by drowsiness, ataxia, and difficult maintaining balance as a result of sedative medications.^[2] The similar symptoms in conditions such as Alzheimer's dementia, Parkinson's disease, and sleep disturbances make sundowning a misdiagnosed condition in an ICU. It is important to recognize the etiological factors related to various manifestations of disruptive behavior in sundowning for effective management. Etiological hypotheses relating to sundowning phenomenon include variation in melatonin levels, leading to alterations in the circadian rhythm of the body. The suprachiasmatic nucleus and melatonin regulate the biological circadian rhythm, and lesions in this pathway may explain agitation and sleep disturbances in ICU sundowning. Various studies have linked decreased levels of melatonin to disrupted circadian rhythm, leading to sundowning effects, a rationale for treating such patients with melatonin. The use of melatonin treatment in delirium patients led to a remarkable improvement in agitation and a decreased daytime sleepiness.^[3]

There is an important relationship between alterations in biologic circadian rhythm and sundowning in a chart review of demented patients. Increased shadows and low lighting were also shown to contribute to late-day agitation and confusion.^[4] Thus, it is hypothesized that behavioral symptoms emerge as the daylight levels decline during the evening/night hours. Patients with visual impairment secondary to macular degeneration developed sundowning behavior with changes in perception as day shifted into twilight.^[5] Bright light therapy improves sleep quality and sundowning episodes in the patients suffering from sundowning syndrome and problems with sleep maintenance.^[6] Placing a fluorescent lamp at about one-meter length from the sundowning patient for a couple of hours may alter the patient's circadian rhythm and make a demented individual less confused or agitated. Cognitive functioning in elderly is improved during the bright light therapy. Combination therapy of melatonin and bright light has a positive impact on restless motor behavior in demented patients.^[7]

We suggest combination therapy of both bright light plus melatonin in the management of ICU or sundowning psychosis for critically ill patients with agitation, confusion, disorientation, associated with or without delirium.

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Conflicts of interest

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