SUNDOWNING SYNDROME

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OUTLINE

1. Definition
2. Epidemiology
3. Risk factors
4. Causes
5. Management
DEFINITION

• NOT A DIAGNOSIS; NOT IN DSM IV.
• A.K.A. “Nocturnal Delirium”
• Def. Behaviors occurring in some older patients, with or without dementia, at the time of nightfall or sunset.
• Behaviors include confusion, anxiety, agitation, or aggressiveness with increased motor activity like pacing, wandering, resistance to redirection, and increased verbal activity like yelling.
• Unlike delirium these behaviors are worse in the evening.
Epidemiology

- Not uncommon.
- Reports range from 2.4-25%.
- In patients with known Alzheimer's or dementia range widens to 2.4-66%.
- Little is known about gender or race prevalence's.
**RISK FACTORS**

**PHYSIOLOGIC**: Impaired circadian rhythmicity secondary to damage to the suprachiasmatic nuclei (SCN) of the hypothalamus and decreased production of melatonin (a hormonal regulator of circadian rhythm).
RISK FACTORS

ENVIRONMENTAL: Changes in environment, amount of daily light exposure, activities during the day, noise level, night disruptions, medications, and patient’s medical comorbidities.
CAUSES

- Majority of theories center on circadian dysregulation:
- Inadequate exposure to light during the day.
- Low lighting and increased shadows aggravate late-day confusion.
- Decreased volume of the SCN in demented patients.
- Decreased CSF levels of melatonin.
MANAGEMENT

PHARMACOLOGIC:

• Correct circadian disruption with melatonin.
• Variable benefit with sedative hypnotics and benzodiazepines. Beware paradoxical excitement.
• Atypical antipsychotics effective for psychosis/agitation (risperdal 0.25-2.0mg).
• Single study noted benefit with donepezil.
MANAGEMENT

NONPHARMACOLOGIC:

- Bright light therapy between 0930-1130.
- Pain management.
- Behavior modification (redirection, reassurance, and distraction).
- Music therapy, aromatherapy, simulated presence therapy, sleep hygiene routine, daily physical activity.
CONCLUSION

• Sundowning is a common clinical phenomenon in demented patients and is a significant challenge for families and caregivers.
• Evidence suggests a circadian rhythm disturbance.
CONCLUSION

- Melatonin, antipsychotic medications, donepezil, bright light therapy, and behavioral modification have been helpful.
CURE SOMETIMES,
RELIEVE OFTEN,
CARE ALWAYS.