Sleep Disturbances in LBD

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DISCLOSURES

I wish to disclose the following potential conflicts of interest:

<table>
<thead>
<tr>
<th>Type of Potential Conflict</th>
<th>Details of Potential Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant</td>
<td></td>
</tr>
<tr>
<td>Speakers' Bureaus</td>
<td>Arbor, Pernix</td>
</tr>
<tr>
<td>Other (Honorarium received for educational services and sleep educational textbooks)</td>
<td>Elsevier, LWW, UpToDate, AAN, AASM, CHEST, ACCP, ATS</td>
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</tbody>
</table>

This talk presents material that is related to one or more of these potential conflicts, and the following objective references are provided as support for this lecture:


Sleep is Restorative
Sleep is Rejuvenative
Brain's Glymphatic System is most active during sleep

The Brain 'takes out the trash' While We Sleep
The Brain ‘takes out the trash’ While We Sleep
Adults Can Get by on 4 hours of Sleep
SLEEP
Adults should sleep 7 or more hrs/night regularly to promote optimal health.
< 7 hrs/night on a regular basis:
- Weight gain and obesity
- Diabetes,
- Hypertension
- Heart disease
- Stroke,
- Depression,
- ↑ Risk of death.
< 7 hrs/night regularly:

- ✅ ↓ Immune function,
- ✅ ↑ Pain,
- ✅ ↓ Performance
- ✅ ↑ Errors,
- ✅ ↑ Risk of accidents
Sleep Disturbances with Aging

**Diagram:**
- **Y-axis:** Respondents (%)
- **X-axis:** Age (y)
- The graph shows an increasing trend in respondents (%) with age, from 10-19 to >70 years old.
Normal Breathing
Airway is open
Air flows freely to lungs

Obstructive Sleep Apnea
Airway collapses
Blocked air flow to lungs
Parasomnias:
REM Sleep Behavior Disorder
REM Sleep Behavior Disorder

RBD is a parasomnia consists of acting out of dreams during Rapid Eye Movement (REM) sleep. It is most commonly associated with neurodegenerative disease, particularly α-Synucleinopathies:

- Parkinson’s disease
- Dementia with Lewy Bodies
- Multiple System Atrophy

Alpha-Synuclein staining of a Lewy body in a patient with Parkinson’s disease.
REM SLEEP BEHAVIOR DISORDER

NEURODEGENERATIVE DISEASE
Frequency of Reported Behaviors During RBD Dream

- Defense against attack by people: 30%
- Defense against attack by animals: 9%
- Adventure dreams: 2%
- Sports dreams: 2%
- Aggression by the dreamer: 57%

Olson, Brain, 2000.
RBD – Treatment

- Modifying sleep environment: safety:
  - Bedroom Safe
  - Remove hard/sharp objects
  - Sleep in padded mattress
  - Place mattress on floor
  - Cover windows with heavy curtain
  - Use pillow barricades

- Until managed, sleep alone

- Sleep in sleeping bag until treated
- Clonazepam (0.25-0.5mg)
- Melatonin 5mg TR can go up to 15mg

Los Angeles Man with RBD

SLEEP 2016
Restless Legs Syndrome
Insomnia