SIGNS AND SYMPTOMS OF SLEEP DISORDERS OTHER THAN INSOMNIA

INTERNATIONAL CLASSIFICATION OF SLEEP DISORDERS

INTRA SLEEP DISORDERS
IN THE CONTEXT OF INSOMNIA
WHY ASSESS THESE?

- THEY MAY ENTIRELY ACCOUNT FOR THE COMPLAINT
  OF INSOMNIA (MAYBE – MAYBE NOT)
- THESE DISORDERS OFTEN CO-OCCUR WITH INSOMNIA
- THEY MAY CONTRAINDICATE THE TX OF INSOMNIA
- THEY MAY COMPLICATE THE TX OF INSOMNIA
OUTLINE

- SLEEP DX COMPLAINTS – THE DUO
- CONDITIONS RELATED TO INSOMNIA
- DRUGS AND IATROGENIC INSOMNIA
- INTRINSIC SLEEP DISORDERS (ABRIDGED)
- ASSESSMENT OF SLEEP DISORDERS

SLEEP DISTURBANCE COMPLAINTS

BE SURE TO DISTINGUISH BETWEEN

THE COMPLAINT OF FATIGUE

THE COMPLAINT OF SLEEPINESS

Q: WHAT IS THE DIFFERENCE?

<table>
<thead>
<tr>
<th>THE COMPLAINT OF FATIGUE</th>
<th>THE COMPLAINT OF SLEEPINESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL WEARINESS</td>
<td>PHYSICAL WEARINESS</td>
</tr>
<tr>
<td>MENTAL WEARINESS</td>
<td>MENTAL WEARINESS</td>
</tr>
<tr>
<td>PERFORMANCE CONTINUES OR IS SLOWED</td>
<td>PERFORMANCE IS SLOWED OR STOPS</td>
</tr>
<tr>
<td>SLEEP IS UNLIKELY</td>
<td>SLEEP IS LIKELY</td>
</tr>
</tbody>
</table>
THE COMPLAINT OF FATIGUE
THE COMPLAINT OF SLEEPINESS

- DIMS
- CRDS
- DSSP
- ASPS
- SHIFTWORK? JET LAG
- INSOMNIAS
- PSYCHOPHYSILOGIC
- PARADOXICAL
- IDIOPATHIC

- DOES
- SOB
- OSA
- HYPOPNEA
- UARS
- PLMs
- NRS?
- NARCOLEPSY
- IDIOPATHIC HYPERSOMNIA

CONDITIONSRELATED TO INSOMNIA & EDS
MEDICATION SIDE EFFECTS
- GERD
- SUBSTANCE ABUSE
- PSYCHIATRIC ILLNESS
- HYPERTENSION
- ENDOCRINE ABNORMALITIES
- RHEUMATOLOGIC DISEASE
- RENAL DISEASE
- LUNG DISEASE
- HEART DISEASE
- NEUROLOGICAL DISEASE
- INTRINSIC SLEEP DXs

NOTE – THE “CHICKEN OR THE EGG” ISSUE APPLIES TO ALL OF THE AFOREMENTIONED COMORBID CONDITIONS
DRUGS THAT CAN CAUSE SLEEP DISTURBANCE

- Alcohol & Caffeine
- Beta Blockers
- Bronchodilators
- Calcium Channel Blockers
- Antidepressants (1st vs 2nd Gen)
- Antibiotics

INTRINSIC SLEEP DISORDERS

- Sleep Apnea
- PLMS
- Narcolepsy
- Phase Delay Syndrome
DISTINGUISHING BETWEEN INTRINSIC DXs

• EXCESSIVE DAYTIME SLEEPINESS
• WITNESSED OR REPORTED SNORING
• WITNESSED APNEAS
• MORNING HEADACHE & DRY MOUTH
• NIGHT SWEATS
• MORBID OBESITY
• RETRONAGTHIA
• NARROWED AIRWAY

THE COMPLAINT OF SLEEPINESS

THE HIGH PROBABILITY OF (AND HISTORY OF) FALLING ASLEEP AT INAPPROPRIATE TIMES AND PLACES
SLEEP APNEA
SIGN AND SYMPTOMS

- Excessive daytime sleepiness
- Witnessed or reported snoring
- Witnessed apneas
- Morning headache & dry mouth
- Night sweats
- Morbid obesity
- Retronagthia
- Narrowed airway

SLEEP DISORDERED BREATHING

A Decision Rule for Diagnostic Testing in Obstructive Sleep Apnea

Table 1: Diagnostic Obstructive Sleep Apnea Prediction (Oximetry, No Other Variable)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>95% CI Low</th>
<th>95% CI High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body mass index</td>
<td>1.1</td>
<td>1.0, 1.2</td>
<td>1.0, 1.3</td>
</tr>
<tr>
<td>Age (years)</td>
<td>1.04</td>
<td>1.02, 1.06</td>
<td>1.03, 1.07</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>0.83</td>
<td>0.79, 0.87</td>
<td>0.80, 0.88</td>
</tr>
<tr>
<td>Neck circumference</td>
<td>1.05</td>
<td>1.03, 1.07</td>
<td>1.02, 1.09</td>
</tr>
<tr>
<td>Nasal deviation</td>
<td>1.01</td>
<td>0.99, 1.03</td>
<td>1.00, 1.04</td>
</tr>
<tr>
<td>Night snoring</td>
<td>1.02</td>
<td>1.00, 1.03</td>
<td>1.01, 1.04</td>
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<tr>
<td>Sleep latency</td>
<td>1.01</td>
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<td>1.00, 1.03</td>
</tr>
<tr>
<td>Apnea index</td>
<td>1.01</td>
<td>1.00, 1.02</td>
<td>1.00, 1.03</td>
</tr>
<tr>
<td>Hypopnea index</td>
<td>1.00</td>
<td>0.99, 1.01</td>
<td>0.99, 1.01</td>
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MALLAMPATI CLASSIFICATION

Class 1  Class 2  Class 3  Class 4

UPPER AIRWAY OCCLUSION

Oropharynx

Hypopharynx

PERIODIC LEG MOVEMENTS
SIGNS AND SYMPTOMS

• RESTLESS LEGS SYNDROME (P)
• EXCESSIVE DAYTIME SLEEPINESS
• WITNESSED TWITCHING
• COMPLAINT OF SHALLOW SLEEP
• COMPLAINT OF INSOMNIA
NARCOLEPSY
SIGNS AND SYMPTOMS

• EXCESSIVE DAYTIME SLEEPINESS
• HYPNOPOMPIC/HYPNOGOGIC HALLUCINATIONS
• SLEEP ATTACKS (REM SLEEP)
• CATAPLEXY
• SLEEP PARALYSIS
• COMPLAINT OF INSOMNIA
NARCOLEPSY

PHASE DELAY SYNDROME

SIGNS AND SYMPTOMS

- COMPLAINT OF SLEEP ONSET INSOMNIA
- DISCREPANT SLEEP SCHEDULES
- NORMAL SLEEP WHEN SCHEDULE IS AD LIBITUM
- AGE
ASSESSMENT

ONCE YOU KNOW WHAT TO LOOK FOR -- HOW DO YOU LOOK FOR IT?

SLEEP HISTORY
PCP VERSION

B E A R S
SLEEP HISTORY
PCP VERSION

B “Do you have difficulty falling asleep?” (BEDTIME)

E “Do you ever fall asleep during the day?” (EDS)

A “Do you awaken frequently or for long periods (AWAKE)”

R “What time do you go to bed? Get up?” (REGULARITY)

S “Have you noticed/anyone said you snore?” (SNORE)

SLEEP HISTORY
QUESTIONNAIRE VERSION

[Table with questionnaire items]

[Table with questionnaire items]
ASSESSMENT
Beyond Signs and Symptoms

SLEEP DIARIES

ACTIGRAPHY

IN-HOME APNEA MONITORS

IN-LAB POLYSOMNOGRAPHY

SDB (OSA / CSA / HYPOPNEA / UARS)

PLMS

NARCOLEPSY

SLEEPINESS (VIA MSLT)

SLEEP EEG ABNORMALITIES

(alpha sleep, nocturnal seizures, absent phasic events)

CARDIAC ABNORMALITIES

QUESTIONS

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