수면장애

서울대학교 의과대학 정신건강의학교실

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Contents

- Normal Aging
- Specific Sleep Disorders
  - Insomnia
  - Sleep Apnea Syndrome
  - Narcolepsy
  - Restless Legs Syndrome (RLS) and Periodic Limb Movements during Sleep (PLMS)
  - REM Sleep Behavior Disorder (RBD)

Introduction

- Age-related sleep changes

  Box 1: Typical sleep changes with aging
  - Decreased total nocturnal sleep time
  - Delayed onset of sleep
  - Advanced circadian phase: early to bed, early to rise
  - Reduced slow-wave sleep
  - Reduced rapid-eye-movement (REM) sleep
  - Reduced threshold for arousal from sleep
  - Fragmented sleep with multiple arousals
  - Daytime napping

Sleep Need

- Does sleep need change with age?
  - Controversial, but it might be changed.

  Recovery effects subsequent to sleep deprivation
  - One of the means to estimate sleep need
  1) Homeostatic response to sleep loss
     (rebound of total sleep time, SWS and REM sleep after sleep loss)
     - Only on the 1st night of recovery sleep in the elderly,
        but persisting on several additional nights in the young
  2) ↓ delta wave activity, SE and TST
  3) More rapid recovery of daytime sleepiness in the elderly
  4) The effects of sleep loss on daytime performance
     - Less prominent in the elderly

Circadian Rhythms in Aging

1) Age-dependent impairment in phase shifting: Shift work adaptation
2) Flattening of the diurnal sleep-wake rhythm amplitude: ↓ napping
3) Phase advance: more tasklike

Fig. 1: Core body temperature changes averaged with respect to time of day for young and older subjects: older subjects (red bars), young subjects (blue bars); solid bar: usual sleep episode of older subjects; dotted line ± 1 SE; open bar: usual sleep episode of young subjects (mean ± 1 SE). Shown are data from scheduled day 7.

(Wurova, CMAJ 2007:176:1298-304)

(Billwos, Sleep textbook, 2000 and 2005)

(Coffey, Am J Physiol 1988:275:1478-87)
Napping and sleepiness

- Less pathophysiological than in the young? Is it normal to nap?
  Simple compensatory strategy for a restricted night sleep?

- Is sleepiness increased with aging?

(Blinder, J Clin Endocrinol Metab
2005;90:4510-15)

- Napping and sleepiness in the elderly are unlikely to
  be indicators of health.
  Risk factors for excessive sleepiness
  : Severe SAS, self-report of poor sleep quality, % time of REM
  : pain at night, wheezing or whistling from chest at night
  medication with sleepiness as V/E and male sex

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Insomnia

Prevalence

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<th>TABLE 6. Prevalence of chronic sleep disturbances within older populations of men and women</th>
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<td>Study/references</td>
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<td>Hanseba et al., 1993 (10)</td>
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<td>Stene et al., 1993 (10)</td>
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<td>Vasa et al., 1993 (10)</td>
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<td>Allsop et al., 1993 (10)</td>
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| (ESE) = Difficulty initiating sleep; DSM = Difficulty maintaining sleep; ESE = early morning awakening; DSM = Insomnia
| *Reference: ERESE, Established Prevalence for Epidemiologic Studies of the Elderly
| (Foley, Sleep 1996;18:425-532)

C.f.1 Prevalence of chronic insomnia among general population - about 30%

Introduction

- Insomnia - not diagnosis but symptom
  1) Take the same attitude as when we see patients with
     headache or fever
  2) Causes (or Comorbidities) of insomnia
     : depression at least 25% of patients complaining insomnia
     : sleep apnea syndrome (SAS)
     : periodic limb movements during sleep (PLMS) / restless legs syndrome (RLS)
     : substance abuse or withdrawal, pain
  3) Comorbid Insomnia vs. secondary insomnia
     Comorbid: Insomnia and Depression / Insomnia and Sleep Apnea Syndrome
     Treatment of comorbid disorder = insomnia (medication and CBT)
     Secondary: Insomnia and RLS / Insomnia and Pain
     Treatment of primary disorder

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Insomnia and Depression

* Bi-directional linkage

**Insomnia**: a typical symptom of depression
  - an independent risk factor for depression in the long run
  1) 60% to 60% of depressed pts - sleep disturbances
  2) 25% of chronic insomnia - suffering from depression

* 우울증이 동반된 불면증의 치료

1) 치료기기와 우울증과 불면증을 동시에 치료
2) 불면증이 우울증보다 먼저 호전될 수도 있고
   우울증이 더 나아가도 불면증은 계속 될 수 있음
3) 지속되는 불면증을 치료하지 않을 경우
   우울증이 자연발생될 가능성이 있음

불면증의 치료

* 약물 치료
  * 비약물 치료(인지행동치료)
  * 제3의 치료? (예, 저주파저극기)