New Perspectives on Migraine Comorbidities:

Behavioral Treatment of Insomnia for Chronic Migraine

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Disclosure

Dr. Smitherman has nothing to disclose.
Comorbidities of Chronic Migraine

- Depression and Anxiety
- Obesity
- Insomnia

Does migraine improve if we target the comorbidity directly?
Treatment of Migraine Comorbidities

- Depression/anxiety
  - SSRIs/SNRIs not efficacious for migraine
  - Limited data on behavioral treatments
- Obesity
  - Weight loss/headache reduction
  - Women’s Health and Migraine (WHAM) trial
- Insomnia
  - 2 sham-controlled RCTs

Banzi et al., 2013; Bond et al., 2011; 2013; Seng & Holroyd, 2012; Verotti et al., 2013
Treating Comorbid Insomnia Improves CM-I

Calhoun & Ford (2007)

- 43 women with CM (24 days/month)
- 1-session behavioral sleep intervention vs sham
  - Plus Discontinuation of overused medications

- Insomnia Instructions
  - 1. Consistent bedtime (8 hours in bed)
  - 2. Eliminate TV, reading, music in bed
  - 3. Use visualization techniques in bed
  - 4. No food/drink within 2-4 hours of bed
  - 5. Discontinue naps
Treating Comorbid Insomnia Improves CM-I

- Calhoun & Ford (2007)
  - 48.5% revert to EM after crossover completed
  - Treatment group reduced 6.8 days/month (vs +0.7 for sham control)
- Improvements proportional to skills adherence
Treating Comorbid Insomnia Improves CM-II

- Smitherman et al. (2016)
  - 31 adults with CM and insomnia (21 days/month)
  - 3-session CBTi vs sham
  - Daily headache diaries plus actigraphy
  - MOH excluded (vs overused meds discontinued)

- CBTi Instructions
  1. Go to bed only when intending to sleep
  2. Leave bedroom if unable to sleep after 20 minutes
  3. Use bedroom only for sleep and sex
  4. Set an alarm and rise daily at the same time
  5. Sleep restriction:
     - Restrict your time in bed to your total sleep time plus 30 minutes
     - Each participant given individualized bed/awake time based on daily diaries
Treating Comorbid Insomnia Improves CM-II

- Smitherman et al. (2016) 3 session-trial vs sham
  - Follow-up odds of headache were 60% less for BT group ($p = .028$)
    - 48.9% frequency reduction from baseline vs 25% for control
  - PSQI changes: $r = .54$ ($p = .002$) w/ HA probability and $r = .46$ ($p = .018$) with HIT-6 changes
Clinical Application

- Stimulus control: Re-associate bed with sleep
  - Classical conditioning

- How to do sleep restriction:
  - Calculate average sleep time (diary)
  - Calculate average time in bed
    - *Sleep efficiency*: Sleep time / time in bed (Goal = 85%+)
  - Prescribe new bed schedule = avg sleep time + 30 min
    - Increase 30min as sleep efficiency reaches 85%

- Bipolar cautions
“ACP recommends that all adult patients receive CBT for insomnia (CBT-I) as the initial treatment for chronic insomnia”
Future Directions

- Larger and longer studies
- Isolate mechanisms of action
- Comparisons with active treatments
- Increasing focus on headache parameters as primary outcomes