

Expert Panel Discussion and Recommendations

Selected clinical issues – sleep disorders, enuresis

Sleep disorders are commonly seen in youngsters with psychiatric disorders and emotional and behavioral disturbances. These sleep disturbances can be primary (obstructive sleep apnea, parasomnias such as night terrors, and sleep schedule disturbances), secondary to psychotropic medications (such as stimulants in youth with ADHD), or due to the underlying psychiatric disorder (impaired sleep due to mania or depression). This break-out group will address the following issues:

- 1) What is an appropriate level of evaluation for youngsters with sleep disturbance?
- 2) What is the appropriate level of diagnostic specificity to warrant ongoing pharmacological treatment? For example, ‘insomnia’ is a symptom of initiating and maintaining sleep and may be primary (pathophysiological insomnia), secondary (due to the alerting effects of stimulant medications), or due to the underlying illness (insomnia due to major depression).
- 3) What are treatments of choice for due to primary or secondary insomnia or sleep disturbance due to a psychiatric disorder?
- 4) What is the role of nonpharmacological treatments such as chronotherapy, light therapy, and progressive relaxation and self-hypnosis? What is the role of melatonin?
- 5) Under what conditions would a benzodiazepine be considered for long term treatment?
- 6) What is the role of behavioral therapy techniques, such as the bell-and-pad, overlearning and dry-bed training, in the treatment of enuresis?

Panel Report

The panel discussed sleep disturbance (insomnia) as a symptom with multiple causes rather than a diagnosis. Multiple causes of sleep disruption discussed, including sleep onset problems due to depression, the difficulties patients with histories of abuse and neglect have with regulating arousal, depression, iatrogenic (treatment induced), circadian abnormalities, poor sleep hygiene and sleep environmental problems.

- 1) The panel suggested that an evaluation of a youngster with sleep disturbance should include:
 - i) a careful history
 - ii) description of sleep environment
 - iii) TV/computer/DVD player in room
 - iv) medications
 - v) use of over the counter medications or illicit drugs to promote alertness (e.g., caffeine)
 - vi) use of over the counter medications or illicit drugs to promote sleep (e.g., Benedryl, alcohol)
 - vii) sleep schedule by history including sleep pattern and duration
 - viii) sleep log
 - ix) environmental factors such as sunlight access

- x) noise
- xi) oppositional behavior at bedtime
- xii) impairment due to sleep problems

The panel recognized that the type of workup that should be done depends upon the clinical context the sleep disturbance arose in. In most instances it was felt that a polysomnogram was not indicated. The exceptions are sleep apnea and periodic limb movements.

- 2) The panel combined several of the main questions and addressed the various levels of diagnostic specificity for four disorders and the psychosocial and psychotropic medication treatments for each. They identified four common diagnoses that superficially resemble each other in that they can cause initial insomnia and sleep disruption, including sleep schedule disorder, insomnia associated with major depression, insomnia associated with ADHD with and without stimulant treatment, and insomnia related to PTSD and arousal dysregulation. They raised the issue that the sleep problems could be iatrogenic and recommended that that potential be ruled out.
 - a) Insomnia and major depression:
 - i) Child Depression Inventory and Beck Depression Inventory to establish baseline. Often, symptoms remit during an admission so no medications are given. Once discharged, symptoms resurface quickly resulting in the need for an intervention.
 - ii) Psychosocial intervention as the first step. The Texas Children's Medication Algorithm does not specifically address treatment of sleep disturbance.
 - iii) Choice of medications:
 - co-morbidity with anxiety use mirtazepine
 - co-morbidity with sleep disturbance use mirtazepine, trazodone, or citalopram
 - some antidepressants can be activating, such as fluoxetine which can help reduce symptoms of depression such as reduced energy, hypersomnia, etc.
 - use alternative for those who are not sleeping or are too energized
 - b) Comorbidity with ADHD and iatrogenic insomnia due to stimulants:
 - i) Switch from sustained release stimulant to immediate release stimulant
 - ii) Clonidine
 - iii) Melatonin
 - c) Comorbidity with PTSD
 - i) Propranolol to alleviate hyperarousal.
 - ii) May cause nightmares.
 - d) Sleep schedule disturbance:
 - i) R/O comorbid condition, such as depression
 - ii) R/O poor sleep hygiene
 - iii) Treatment
 - chronotherapy
 - melatonin
 - question about whether melatonin could delay puberty
 - decreased testosterone
 - increased prolactin
 - decreased bone density
 - antihistamines

- effectiveness after two weeks has not been established
 - trazodone
 - may be effective in augmenting treatment for depression
 - benzodiazepines
 - may cause rebound insomnia if used more than three times weekly
- 3) Most of the pharmacological interventions have been addressed above. Psychotropic medications would be considered if the sleep problems resulted in impairment in daytime functioning and conservative treatments such as sleep hygiene, and sleep schedule treatments are not effective. Psychotropic medications would also be considered if the sleep disturbances persisted after resolution of the underlying psychiatric disturbance. Other pharmacological treatments suggested included quetiapine. Prescription of psychotropic medications should not exceed 3 or 4 months at a time.
 - 4) The panel discussed several psychosocial interventions in addition to the ones described above as alternatives to pharmacological management:
 - a) Relaxation/self hypnosis
 - b) Sleep restriction
 - c) Instruction in sleep hygiene
 - d) Maximizing sleep environment for restful sleep
 - e) Education of foster parents/caregivers
 - 5) The panel did not really discuss benzodiazepines. There was general consensus that long term treatment of sleep problems with benzodiazepines should be avoided due to the possibility of developing tolerance and rebound insomnia. The panel recommended that the outcome of any treatment intervention be assessed at two weeks and every two weeks thereafter
 - 6) The panel discussed the frequency of enuresis in this population. Barriers to the effective treatment of enuresis were discussed, not the least of which was the caregivers belief that this problem is merely a variation of normal and is “no big deal.” Relationship to abuse and neglect postulated. The panel discussed various nonpharmacological treatments for enuresis. Ideally these should be tried before pharmacological treatments as they are more likely to be curative. They addressed in some detail the barriers to such treatments, including the physician’s lack of familiarity with behavioral treatments for enuresis, lack of time and resources to teach caregivers, and lack of follow through by caregivers in that they often have to wake up and assist the child to assure the success of the treatment. Behavioral methods discussed included the bell and pad method and dry bed training. Several suggestions were raised to address some of these concerns:
 - a) Referral to continence clinics at LaRabida or the University of Illinois at Chicago
 - b) Targeted use of Behavioral Analysts
 - c) Hiring home health care workers for the training
 - d) Hiring a behavioral modification team for enuresis, OCD, anxiety, and behavioral problems