Psychopharmacology of Sleep & Eating disorder in children and adolescence

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Sleep Disorder

- Sleep disorders are highly prevalent in children of all ages.
- Children and adolescents with psychiatric condition have a higher prevalence of sleep disorders.
- Primary sleep disorders may manifest with symptoms of inattention, academic difficulties, poor impulse control, mood changes, excessive daytime sleepiness, and fatigue-resembling symptoms of ADHD, depressive disorders, and learning disabilities. Early identification and treatment of sleep disorders are important in improving negative developmental outcomes.

- Referral to the sleep laboratory is indicted for children with suspected sleep-disordered breathing, excessive daytime sleepiness, and parasomnias.
- The first-choice treatment for children with nocturnal anxienty, behavioral insomnia of childhood, and nightmares includes behavioral interventional.
- Pharmacological interventional for children with sleep disturbances should be considered only in the context of behavioral interventions and should preferably be short-term.

CLASSIFICATION OF SLEEP DISORDERS IN CHILDHOOD

	ICSD – DCM2	DSM IV - TR	DC O – 3R
DYSOMNIAS	Intrinsic disorders Extrinsic disorders Circadian disorders	Primary Insomnia Primary Hypersomnia Narcolepsy Breathing Related (OSA) Circadian Rhythm Disorder RLS/ PLMD	RDC – INF ANT
PARASOMNIAS	Arousal disorders Sleep – wake trans REM Parasomnias	Nightmare Disorder Sleep Terror Dis. Sleep Walking Dis.	DSM – IV - TR
MED/PSYCH DISORDERS	Mental disorders Neurogical Dis. Other medical Dis.	Mental disorders General medical Dis. Substance Induced	Regulatory Dis. With Sleep Prob

Primary Hypersomnia

- No pharmacological interventions are the first choice of treatment. Behavioral interventions include parental education, "sleep hygiene," scheduled awakenings, and positive bedtime routines and cognitive-behavioral therapy.
- Cognitive therapy has been successfully implemented to treat insomnia in older children and adolescents.

- Psych stimulants such as methylphenidate or dextroamphetamine have been used alone or in combination with modafinil in treating excessive sleeping in children and are generally well-tolerated.
- A sodium oxybate 10-20 mg/day
- Tricyclic antidepressants,(clomipramine, imipramine, protriptyline); mixed action antidepressant, like venlafaxine; and serotonine reuptake inhibitors may be used to treat cataplexy and other symptoms of narcolepsy.

Kleine-levin Syndrome

- Treatment of KLS is symptomatic, focused on the relief of hypersomnia and associated symptoms.
- psychstimulants ,Modafinil ,
- lithium carbonate.

Restless legs syndrome

- Iron therapy
- dopaminergic medication such as pramipexole and ropinirole are effective in pediatric cases of RLS.
- Gabapentin, benzodiazepines (clonazepam) and alpha-agonists (clonidine), and carbamazepine have been successfully used to relieve RLS symptoms in children.

Parasomnias

- Children should avoid sleep derivation, stressful situations, and caffeine close to bedtime. Treatment of other sleep, emotional, and behavioral disorders is known to reduce the frequency and intensity of parasomnias,
- Clonazepam (0.01 mg / kg, usual starting dose 0.25 mg qhs),
- Diazepam (0,04-0.25 mg / kg)
- Lorazepam (0,05 mg / kg) can be considered (Sheldon 2004).

Circadian rhythm sleep disorder

- Sleep hygiene, family and child education, and the gradual advancement of sleep phase of treatment for DSPS.
- Melatonin administered.
- Chronotherapy.

Obstructive sleep apnea(OSA)

- OSA is characterized by expiratory snoring and mouth breathing. OSAshould be suspected in any child who snores.In older children and adolescents,excessive obesity that reduces airflow during sleep may be present.
- On occasion the multiple awakenings significantly interfere with the secretion of growth hormone,which normally occurs during NREM stage 4 sleep.
- however,sleep apnea should be investigated by polysomnography in a sleep laboratory in order to identify its specific cause and severity,and prescribe an appropriate intervention.

Eating Disorder

PICA

- It defined as the persistent eating of nonnutritive substances for at least 1 month in such a fashion that such eating is inappropriate to developmental level and is not part of culturally sanctioned practice

Treatment

- Pharmacological and behavioral approaches have been used to treat pica
- Antidepressants
- Zinc and Iron supplementation in anemic patient

RUMINATION DISORDER

- Repeated regurgitation and rechewing of food for a period of at least 1 month following a period of normal functioning
- Not due to an associated gastrointestinal or other general medical condition

Treatment :

- Aversive Techniques
- Nonaversive Techniques

FAILURE TO THRIVE AND FEEDING DISORDER

- Characterized by a marked deceleration of weight gain and a slowing or disruption of acquisition of emotional and social developmental milestones.
- The most important intervention is adequate caloric intake
- The clinician must identify and remediate this

FUNCTIONAL DYSPHAGIA

- As a subjective experience of difficulty or discomfort associated with the act of swallowing that is not primarily due to an organic medical condition
- Treatment Included cognitive behavioral therapy, hypnobehevioral therapy, as will as a multimodal approach that integrates cognitive behavioral, individual, family, and pharmacotherapies

PSYCHOSOCIAL DWARFISM

- Also called deprivational dwarfism or hyperphagic short statue
- Is a syndrome of deceleration of linear growth combined with characteristic behavior disturbance (sleep disorder and bizarre eating habits), both of which are reversible by a change in the psychosocial environment

Treatment

- The treatment of PSD include the three cardinal factors:
- A reversible neuroendocrine and growth dysfunction, behavioral disturbances and developmental delays, and presumably a noxious psychosocial environment.

ANOREXIA NEVROSA

DIAGNOSTIC CRITERIA FOR ANOREXIA NERVOSA

A. Refusal to maintain body weight at or above a minimally normal weight for age and height
B. Intense fear of gaining weight or becoming fat, even thought underweight
C. Disturbance in the way in which one's body weight or shape is experienced, on due influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low bodyweight
D. In postmenarcheal female, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles

Treatment

- It respond best to a multifaceted treatment approach that includes medical rehabilitation with weight restoration ,individual cognitive psychotherapy ,and family therapy or counseling for patients under the age of 18.
- Medication such as chlorpromazine,olanzapine,fluoxetine, or cyproheptadine can be useful in treatment of it.

BULIMIA NERVOSA

DIAGNOSTIC CRITERIA FOR BULIMIA NERVOSA

A. Recurrent episodes of binge eating:
1.Eating, in a discrete period of time, an amount of food that is definitely larger than most people would it during a similar period of time and under similar circumstances
2. A sense of lack of control over eating during the episode
B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medication; fasting; or excessive exercise
C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for three months
D. self-evaluation is unduly influenced by body shape and weight
E. The disturbance does not occur exclusively during episodes of anorexia nervosa

Treatment Of BULIMIA NEVROSA

- CBT
- Family therapy _under the age of 18
- SSRIs: Fluoxetine 60 mg/day
- Group therapy

OBESITY

- Body composition has been determined using techniques such as total body water, dual energy X-ray absorptiometry(DEXA), total body electrical conductivity, and total body potassium.

Treatments

- Psychotherapeutic treatments:
- Dietary changes, physical activity,behavioral techniques
- Pharmacological teratments:
- **Sibuteramine (**10 mg) has been approved by the FDA for use in patients age 16 years and older.

- **Orlistat**
- has been approved by the FDA for use in patients age 12 years and older.
- **Metformin** 500 mg/TDS
- **Surgical Treatments**

THANKS