

# دکتر پریسا پاکدل

فوق تخصص روانپزشکی کودک و نوجوان

آذر ۹۹

# ADHD

## Differential diagnosis and Comorbidity

# Differential diagnosis

- \* Developmentally **appropriate** levels
- \* Medical conditions
- \* Oppositional defiant disorder
- \* Conduct disorder
- \* Anxiety disorder

# Differential diagnosis

- \*Mood disorder
- \*Learning disorder
- \*Intellectual disability
- \*Autism spectrum disorder
- \*Psychosis

# Differential diagnosis

## Medical condition

- \* Endocrine disorders
- \* Neurological disorders

# Differential diagnosis

Soft neurologic signs(Non focal motor deficits)

- \*balance and maintaining gait
- \*motor planning and control
- \*sensory integration
- \*reflex asymmetries

# Differential diagnosis

## ADHD

distractibility  
careless mistakes  
hyperactivity  
easy frustration  
irritability  
restless sleep

## Depression

distractibility  
preoccupation with mood  
agitation  
easy frustration  
irritability  
insomnia  
depressed mood  
guilt feeling  
suicidal ideas  
anorexia

# Differential diagnosis

## ADHD

distractibility  
careless mistakes  
hyperactivity  
easy frustration  
irritability  
impulsiveness  
restless sleep

## Bipolar

flight of ideas  
thought racing  
distraction by grandiosity  
hyperactivity  
irritability  
impulsiveness  
insomnia, decreased need for  
sleep  
hyper sexuality                      risk  
taking behavior                      sometimes  
episodic                      F.H of mood  
disorders



# Comorbidity

- \* High rate of comorbid psychiatric disorders.
- \* %66 child and adolescents with ADHD:1-2 comorbidity

# Comorbidity

- \* More common: 33-50

- \* Oppositional defiant disorder

- \* Conduct disorder

- disorder

- \* Anxiety

# Comorbidity

\* Learning and language disorder: 20 %

\* Tic disorder

\* Mood disorder

depression: 11% bipolar: 4-16%

# Comorbidity

- \* Autism spectrum disorder
- \* Intellectual disability
- \* Elimination disorders
- \* Sleep disorder
- \* Substance use disorder

# comorbidity

## \*Epilepsy :

24% comorbid ADHD associated with  
younger age/early first onset age/high frequently  
seizure/multiple drugs  
no difference in seizure type and abnormal EEG

\*Migraine :ADHD significantly increased in migraine but  
not in tension type headache .

# Comorbidity

## Micronutrient deficiencies

- \*serum iron

Iron deficiency anemia :3/82 more in ADHD

- \*\*serum ferritin

- \*manganese level

- \*vitamin D

- \*zinc

# Comorbidity

GAD 16%

ADHD combined .....72%

higher psychiatry comorbidity

depressive disorder

maternal depression

ADHD in fathers

bipolar disorders in second degree relatives

# Comorbidity

Socioeconomic challenges in

comorbidity

\*parental education level

\*employment

\*family income



# Comorbidity

Sex differences in comorbidity patterns

\* in girls

ASD

ODD

ID

suicidal behavior

substance use disorder

\* cognitive deficit in boys: more difficulties in motor response inhibition and cognitive flexibility

# Comorbidity

## Sleep disorders

insomnia

sleep onset delay

motor restlessness:50%

sleep walking:;47%

night terrors:38%

# Comorbidity

## Sleep disorders

snoring:21%

excessive day time sleepiness

sleep disorder breathing

confusion arousal

RLS:11% PLMD

narcolepsy: 25-33% have ADHD

# Comorbidity

## Sex role in ADHD sleep disorders

- \*60% sleep disorders (75%girls,53%boys)
- \*anxiety symptoms increased bed time resistance
- \*ADHD-C associated night waking \*
- ODD and depression associated shorter sleep duration
- \*depression associated daytime sleepiness
- \*sex did not moderate association between comorbid and sleep problem.

# Comorbidity

Out come in school age

- \*comorbidity increased low academic performance
- \*ADHD+CD/ODD associated with school discipline
- \*ADHD+ANX/DEP associated with poor academic performance

# Comorbidity

## Adult ADHD

\*mood disorders

dep:18-53% in ADHD

bipolar:5-47% in ADHD

bipolar I more bipolar II

\*anxiety disorders :50% social phobia more  
than panic disorder

# Comorbidity

## Adult ADHD

- \*substance use disorders

- \*personality disorders

50% ADHD :cluster B,C

25%

have 2 or more PD