Child Psychiatry

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Why is it important?

- The prevalence of child psychiatric disorders (point prev) 6-25%
  - Depends on: method, age, gender
- During growing up every 3. child has a period, when either he/she or the surrounding suffers from his/her emotional / behavior problems
- The majority of psychiatric disorders begins in childhood

Courtesy Dr Judit Balazs

Child / adolescent psychiatry

DSM-5

1. Neurodevelopmental disorders
   - Intellectual Disabilities
   - Autism spectrum disorder
   - ADHD
   - Specific Learning Disorders
   - Motor Disorders
   - Tic Disorders

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Child / adolescent psychiatry

2. Adult disorders with childhood onset DSM-5
   - Mood disorders
   - Anxiety disorders
   - OCD
   - Trauma and Stress related disorders
   - Schizophrenia
   - Eating disorders
   - Psychoactive substance dependence
   - Somatic symptoms
   - Sleep-wake disorders

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DIFFERENCES CHILD – ADULT PSYCHIATRY

- The child's existence and emotional development depends on the family - cooperation with family members (written consent)
- The developmental stages
- Children are less able to express themselves in words

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ADHD

ADHD Statistics

- 3-5% of school-age children are estimated to have this disorder.
- Males are 3 to 6 times more likely to have ADHD than are females.
- At least 50% of ADHD sufferers have another diagnosable mental disorder.

ADHD Characteristics

- Inattention
- Impulsivity
- Overactivity

Diagnosing ADHD: DSM-5

- **Inattentiveness:**

Has a minimum of 6 /5 symptoms regularly for the past six months.

Symptoms are present at abnormal levels for stage of development

- Lacks attention to detail; makes careless mistakes
- has difficulty sustaining attention
- doesn't seem to listen
- fails to follow through/fails to finish projects
- has difficulty organizing tasks
- avoids tasks requiring mental effort
- often loses items necessary for completing a task
- easily distracted
- is forgetful in daily activities

Diagnosing ADHD: DSM-5

- **Hyperactivity/ Impulsivity:**

Has a minimum of 6/5 symptoms regularly for the past six months.

Symptoms are present at abnormal levels for stage of development

- Fidgets or squirms excessively
- leaves seat when inappropriate
- runs about/climbs extensively when inappropriate
- has difficulty playing quietly
- often "on the go" or "driven by a motor"
- talks excessively
- blurts out answers before question is finished
- cannot await turn
- interrupts or intrudes on others

Diagnosing ADHD: DSM-5

- **Additional Criteria:**
  - Symptoms causing impairment present before age 12
  - Impairment from symptoms occurs in two or more settings
  - Clear evidence of significant impairment (social, academic, etc.)
  - Symptoms not better accounted for by another mental disorder

Etiology of the Disorder

- **ADHD is a genetic disorder**
- **Involves possibly several genes**
- **They have a tendency to segregate together**
- **This may mean they are close to one another**

Characteristics

- **1) ADHD persist into adulthood 75% of the time**
- **2) Up to 4% of adults suffer from it**
- **3) It can be quite crippling, according to severity of the disorder**

Symptoms Of Adults

- **1) Distractability in different degrees**
- **2) Hyperactivity present but better control sometimes**
- **3) Impulsivity (acting without thinking)**
- **4) Irritability, hot temper, affective lability**
- **5) Significant stress intolerance**

What is the Impact of ADHD on people? (Barkley, 2002)

- 32-40% of students with ADHD drop out of school
- Only 5-10% will complete college
- 50-70% have few or no friends
- 70-80% will under-perform at work
- 40-50% will engage in antisocial activities
- More likely to experience teen pregnancy & sexually transmitted diseases
- Have more accidents & speed excessively
- Experience depression & personality disorders

Non-pharmacological:

- Psychoeducation
- Parent Team
- Home Modifications
- Parent-Teacher Team
- Consistency of parent-teacher-doctor team
- Cognitive behavior therapy

Medication Treatment of ADHD

STIMULANTS

- **Ritalin**-one dose lasts up to 4 hours
- **Metadate** – Ritalin – once a day lasts up to 12 hrs
- **Focalin** – New Ritalin derivative lasts up to 4 hours
- **Attenade**-Newest Ritalin derivative-lasts 6 hours
- **Concerta**- once a day lasts up to 12 hours
- **Dexedrine**-last 4 hours-spansule lasts 10 hours
- **Adderall**- New Dexedrine - once or twice a day lasts longer than Ritalin
- **Cylert**-requires liver function testing due to history of hepatic failure with children who were on it

Other Drug on the Market

- **Atomoxetine (Strattera) is a re-uptake inhibitor of norepinephrine . It is not a psychostimulant.**
- **Best doses seems to be 1.2 mg/kg/day**
- **Does not exacerbate tics.**
- **Covers patient 24 hours.**
- **Side effects: Decreased appetite, nausea, loss of weight, somnolence, etc. Non-addictive.**

AUTISM

DSM

- DSM-III: Infantile autism included for the first time
- DSM-III-R: changed to autism
- DSM–IV-TR: Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence
  - Pervasive developmental disorders
- DSM–5: Autism Spectrum Disorders

ETILOGY

DEFINITELY NOT THE REASON

- MMR
- Vaccina – thiomersal
- Eveloff (1960) – parents are cold, detached, ritualistic
- Bruno Bettelheim (1967) - "refrigerator mothers"

ETIOLOGY

NO EVIDENCE

- Gastrointestinal
- Vitamins
- Food

ETIOLOGY

Genetic
- Monozigotic twins: > 90%;
- Child: 45X; Siblings: 2-8%

Brain structure
- Prefrontal Cerebral Cortex, Hypothalamus, Amygdala, Pulvinar

Neurotransmitters
- HT5
- GABA

Prea-perinatal
- Congenitual rubeola, cytomegalia, herpes encephalitis, toxopasma

DEFINITION

- Onset before age 3 years based on delay/abnormal functioning in
- Criteria in 2 areas :
  - Social interaction / Communication
  - Repetitive and restricted behaviors

EPIDEMIOLOGY

- Early studies: 2-5/10 000
- Later: 60 /10 000 (1 / 160)
- Nowdays: 1 / 88
- Boys : Girls - 3,5-4:1

INCREASE OF PREVALENCE

- Changes in diagnostic criteria
- Better assessment opportunities
- More knowledge of pediatricians, teachers, parents
- Real increase of prevalence?

COMORBIDITY

- Ment. ret: 75% (with spectrum lower!!)
- Epilepsy: 15-30%
- ADHD
- Depression
- OCD
- Psychoactive substance use

TREATMENT

- There is no treatment to the „core" problem.
- Early intensive development!!
- Complex developmental- behaviour-educational terapeautic programs
- Medication: just for the comorbide symptoms
- Additional: sociotherapy, skill-traing

Tourette's Syndrome

DSM-5 Tic Disorders

- Tourette Syndrome (Tourette's Disorder)
- Chronic Motor or Vocal Tic Disorder
- Transient Tic Disorder
- Tic Disorder, NOS
- Under Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence

What are Tics?

- Tics are any sudden, rapid, recurrent, nonrhythmic, involuntary actions or vocalizations.
- There are two types:
  - Motor tics
  - Vocal tics
- **Motor Tics:** Any involuntary, rapid, sudden movement (usually of muscles).
- **Vocal Tics:** Any involuntary, rapid, sudden vocalizations.

Motor Tics

- **Simple Tics**
- Are completely meaningless and are sometimes mistaken for muscle spasms.
- They usually involve only one muscle group per tic.
- Fast and brief, lasting <1 sec
- **Complex Tics**
- Use more than one muscle group and often appear to have a purpose.
- Quite similar to the compulsions of Obsessive Compulsive Disorder (OCD).

Vocal Tics

- **Simple Tics**
- Are completely meaningless and usually use only one muscle group.
- **Complex Tics**
- Tics that are long and intricate.

	Simple	Complex
Motor tics	Eye blinking Nose wrinkling Jaw thrusting Shoulder shrugging Wrist snapping Neck jerking Limb jerking Abdominal tensing	Hand gestures Facial contortions Jumping Touching Repeatedly smelling object Squatting Copropraxia Echopraxia
Vocal tics	Sniffing Barking Grunting Throat clearing Coughing Chirping Screaming	Single words or phrases Partial words or syllables Repeated use of word or words out of context Palilalia Echolalia Coprolalia

Differential Diagnosis

- Tics and TS may resemble other disorders or conditions
  - Myoclonus
  - Dystonia
  - Hyperkinetic disorders
  - Extreme ADHD
  - Seizure disorder
  - Developmental stuttering
- Tics may also be symptom of neurologic insult such as CO poisoning, medication-induced insult, or head trauma

EPIDEMIOLOGY

- Originally thought to be rare, but now recognized to be more prevalent
- 20% of children experience tics, mostly transient
- Prevalence estimates vary greatly
  - .05% to 3% of all children
  - Majority suggest 1% of general population
- ~750,000* children in US, although many undiagnosed
- Occurs in all races and ethnicities
- Males 3-4x > females

*Tourette Syndrome Association, www.tsa-usa.org

- Tics generally occur daily, but tend to wax and wane in frequency and intensity
- Type, location, and severity may change over time
- By age 18 years, half of patients are free of tics
- For those whose tics persist, severity typically diminishes in adulthood

Comorbidity

- Approx 90% of patients have comorbid condition
  - ADHD
  - Obsessive compulsive symptoms/disorder
  - Learning difficulties/Learning disorder
  - Anxiety disorders, including phobias
  - Mood disorders (depression, dysthymia)
  - Sleep disturbance
  - Oppositional defiant disorder
  - Self-injurious behaviors (may be tics)

Genetics

- Well-established familial basis
- Children with 2 TS and/or OCD-affected parents 3x more likely to develop tics than children with only one affected parent
- 43% of young children with parent or sibling with TS developed tic disorder
- When one twin has TS or chronic tic D/O: 77% of identical sibs have TS or chronic tics vs. 23% of fraternal sibs
- Vulnerability may interact with perinatal factors:
  - Low birth weight
  - Nonspecific maternal stress
  - Maternal use of alcohol, cigarettes

Pathogenesis of TS

•Support for TS as a developmental disorder of synaptic neurotransmission

•Involves basal ganglia and related neural pathways

•Failure in filtering (disinhibition)along striatal-thalamic-cortical circuit, resulting in ineffective removal of unwanted, interfering information

•Same circuits and structures involved in OCD, ADHD

Management and Treatment

- Multi-component management approach recommended
  - Education for patient and others
  - Behavioral approaches
  - Medication

THANK YOU!