ADHD

- Disorder of hyperactivity, impulsivity, inattention that affect multiple life aspects.
- Classified into 2 predominant subtypes;
  - Hyperactive/impulsive
    - Hyperactivity and impulsivity come together in children; characterized by the inability to sit still or inhibit behavior
    - hyperactive/impulsive symptoms are observed by age of 4 , increase and peak by 7-8 and then hyperactivity begin to decline but impulsivity usually persist through out life
    - Although hyperactivity becomes barely noticeable by others adolescent may feel restless
  - Inattention type
    - characterized by reduced ability to focus attention and reduced speed of cognitive processing and responding
    - Complaints usually about academic and cognitive problems
    - More prominent in children born <32 weeks gestation
    - Not apparent until age of 8-9 and they are lifelong problem
- Prevalence among children varies; 2-18% depend on study population and criteria
  - Among school age 8-11 %
  - making it one of the most common disorders of childhood
  - Some studies suggest increase in prevalence over years
- 1/3 of children diagnosed before 6 years of age
- More common in boys; (4:1 in hyperactive type, 2:1 in inattentive type)
- Comorbid conditions can be primary or secondary (eg, exacerbated by the ADHD). ; they require Tx independent of ADHD Tx
- ADHD has 2 core symptoms;
  - Impaired function
    - Must impair Academic, social life to meet ADHD criteria
    - Social skills significantly impaired
    - Problems with inattention limits opportunities for social skills acquiring and friendships.
    - Hyperactivity/impulsivity results in peers rejection
  - Hyperactive/impulsive and inattention;
- Evaluation;
  - They require evaluation in every single aspect; medical, developmental,educational,psychological
  - Clinical interview with parent and ptn required, school performance assessment, checking for emotional/behavioral disorders.

1. medical evaluation
    - physical exam in most children normal; but u should do it
    - Measurements of height,weight,head circumference, vitals
    - Assess dymorphic features and neurocutaneous abnormalities
    - Complete neuro exam with vision and hearing assessment
    - Observe child behavior in office
2. Ancillary evaluation
    - speech/language evaluation
    - Occupational therapy
    - Mental
    - Blood lead level/ thyroid hormone/ genetic testing(fragile x)/ neuro consultaion and EEG

- DSM5 diagnostic criteria;
    - <17 years old; >= 6 hyperactivity/impulsivity symptoms or >=6 inattention symptoms
    - > or =17 ; >=5 hyperactivity/impulsivity symptoms or >=5 inattention symptoms
    - Symptoms must be;
        - Occur often
        - Multiple setting(school, home,)
        - > 6 months persistence and before age of 12
        - Impairs function
        - Excessive of developmental level
- Treatment;
    - In general;
        - Care coordination by involving ptn and family
        - Set realistic achievable goals
            - Improve relationships with others
            - Improve academic performance
            - Improve rule following (يكون مطيع)
    - Preschool age (4-5 years) ; behavioral therapy is the initial therapy provided by parents of teacher
    - School age (>=6) ; initial Tx with stimulants + behavioral therapy
    - Medications;
        - Stimulants;
            - Methylphenidate
            - Amphetamines
        - Atomoxetine (norepi reuptake inhibitors)
        - Alpha 2 agonist(clonidine or guanfacine)

ASD

- It is impairment in 2 domains;(diagnosis depends on this)
  - Social communication/interaction
  - Restricted repetitive behaviors, interests and activities
- Has multiple names;
  - childhood disintegrative disorder,
  - pervasive developmental disorder- not otherwise specified
  - Asperger disorder
- 4:1 male to female with increasing prevalence
- Associated conditions;
  - Intellectual disability 50%-75%
  - Seizures 11-39 %; higher in individuals with more severe intellectual disability
  - GI/ feeding problems 19-24%
  - Sleep disturbances
- Pathogenesis ; incompletely understood, could be related to genetic, neurobiology, environmental factors and parental age.

IMPAIRED SOCIAL COMMUNICATION AND INTERACTION examples;

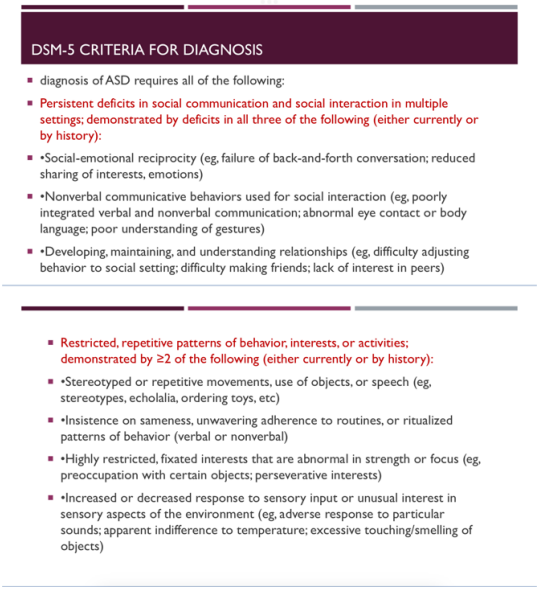
- Social reciprocity; ما بقدر يتفاعل معك عاطفيا ولا اجتماعيا
- Joint attention; reduced spontaneous seeking to share enjoyment, interests, or achievements with other people
- Nonverbal skills; impaired ability to use facial expressions, gestures, eye to eye
- Social relationships; fail to develop and maintain peer relations.

RESTRICTED AND REPETITIVE BEHAVIOR, INTERESTS, AND ACTIVITIES examples;

- stereotyped behaviors;
  - echolalia
  - motor mannerisms(repetitive movements such as nodding, walking on tip toe, flapping)
  - Self injurious behavior; common among cognitively disabled ASD
- Insistence on sameness ((نفس الروتين ما بغيره
- Restricted interests; ((اهتمامات محدده بشكل مبالغ فيه
- Intellectual impairment;
  - Cognitive skills of individuals with ASD are usually uneven, regardless of the general level of intelligence
  - Verbal skills are usually weaker than nonverbal skills
  - ——————

- Special skills;
  - Savant skills
  - Hyperlexia ((بتعلم يقرا بوقت مبكر
  - Calendar calculation

- **Diagnosis**;
  - History
  - Examination: growth, woods lamp, dysmorphic features
  - Neurological
  - Ancillary testing;
    - Exclude other conditions that may mimic ASD
    - Vision/ Hearing assessment
    - Speech, language
    - Developmental/ intelligence testing
    - Adaptive skills assessment; to establish priority in treatment plan
    - Neuropsychologic
    - Occupational therapy evaluation



- Dsm 5 criteria; don't believe we are required to know them. Just read

- **Management**;
  - Should be individualized
  - Multidisciplinary approach
  - Improve; social, communication, adaptive skills ,decrease negative behaviors, promote cognition
  - Treatment;
    - Behavioral and educational
    - Pharmacological;
      - ✓ Risperidone and aripiprazole only drugs allowed
      - ✓ Titrate dose up
    - Complementary/alternative tx for other associated conditions

- **Prognosis**;
  - Hard to predict in ptn <3 years
  - Good prognostics;
    - High cognition
    - Decreased symptoms severity
    - Early detection
    - Involvement in intervention
    - Presence Joint attention
    - Functional play skills
  - Poor prognostics;
    - Lack of joint attention by age of 4
    - Lack of functional speech by 5
    - IQ<70
    - Seizures
    - Severe ASD symptoms