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LECTURE 3:

Frequency, Risk Factors and co-existing conditions

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Integrative Parents' Autism Traning

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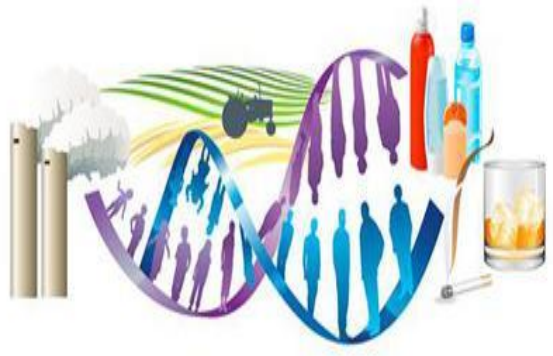
- *AUTISM EPIDEMIOLOGY*

Outline

Epidemiology

Risk Factors

Co existing conditions



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LEARNING OUTCOMES

- Develop awareness about the frequency of ASD on National and World basis.
- Gain Knowledge about biological, psychological, social risk factors
- Gain Knowledge about co-existing medical or psychological conditions

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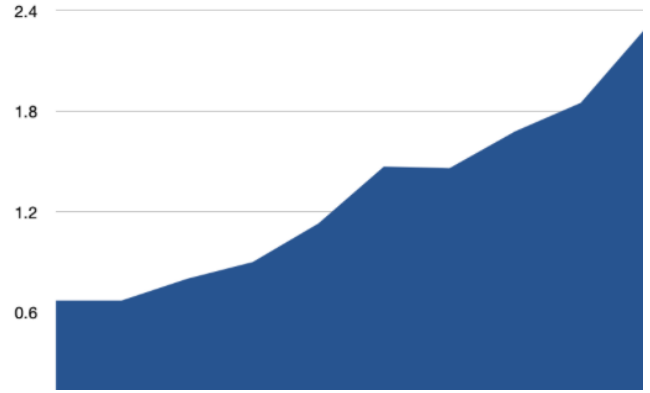
Prevalence and Epidemiological data

- ✓ **1/100 individuals** - World Health Organization, (WHO, 2022)
- ✓ **1/44 individuals** - Centers for Disease Control and Prevention, CDC, (Maenner et al, 2021)
- ✓ **Men to women 4: 1**
- ✓ Various Surveys in Asia, Europe, America find **1% - 2%** in the general population
- ✓ Same rates of occurrence between socio-economic profiles and races

- ✓ ***during the last 20 years the frequency of autism is in the rise, fact related to the increasing sensitivity of the diagnostic criteria used and increasing awareness of parents and professionals***



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Risk Factors I

<u>Factors present more often in persons with autism as compared to those without autism.</u>

- **<u>Heredity / Genetic Factors</u>**
  - ***Autism in monozygotic twins: 36-95%***
  - ***Autism in dizygotic twins 0-31%***
- **Parents who have a 1st child with ASD are likely to have a 2nd child with ASD in the range of 2% -18%**
- **<u>Perinatal</u> (hip projection, low Apgar score at 5 minutes, low birth weight, duration of pregnancy less than 35 wks - Preterm birth)**

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Risk Factors II

- **Brain infections after birth**
- **Infections during pregnancy-Congenital infections (rubella, CMV, toxoplasmosis)**
- **Syndromes (fragile X, Nodular sclerosis)**
- **Parents' Age**
  - **Father's older age**

COMORBIDITY IN ASD = Coexisting medical conditions

- **Coexisting medical conditions are more frequent in persons with ASD compared to the general population.**
- **The simultaneous presence of two or more diseases does not presuppose that there is a causal relationship between them**
- **Some comorbidities may be more common during adolescence and later, and especially in people with high functioning Autism (e.g. depression).**

•It is important to detect comorbidity, as:

•Has clinical significance.

•Has prognostic value.

•Affects the outcome of therapeutic interventions.

•Examples: A person with ASD who shows symptoms of a depressive episode / An adolescent with high-functioning ASD who exhibits internet addiction behaviour.

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Coexisting conditions support evidence that ASD is "intrinsic"

- Increased co-morbidity with Intellectual Disability (approximately 32%) and increased incidence in diseases with Intellectual Disability.
- Increased comorbidity with seizures (5-10%)
- Increased comorbidity with sensory dysfunctions (deafness, blindness)
- Gender difference (boys/girls: 3-4 /1

What is not valid?

- "Mother's refrigerator" theory
- Relationship with Vaccines (MMR)

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ASD and ADHD

- The presence of symptoms of inattention, impulsivity and hyperactivity is common in ASD disorders. In a 2001 study in adolescents diagnosed with Asperger syndrome according to ICD-10 criteria, co-morbidity with ADHD (Attention deficit hyperactivity disorder) was the commonnest case.

ASD and OCD

- **Obsessive-compulsive manifestations:** Although there may be difficulties in distinguishing particular differences in phenomenology between these disorders, cases of coexistence may occur.

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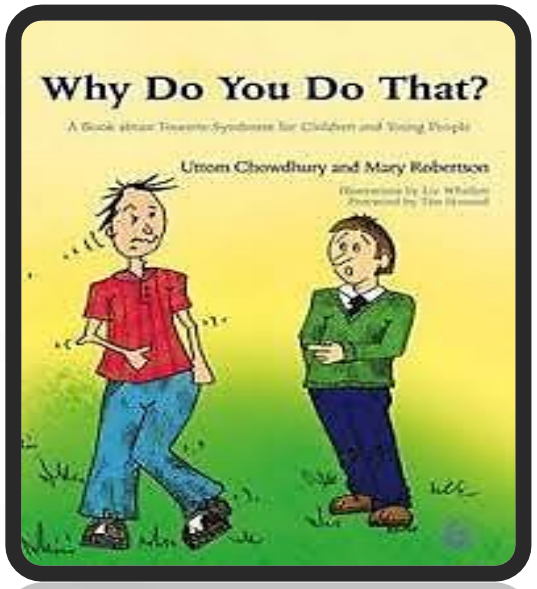
ASD and transient ticks / Chronic ticks Disorder:

Ticks are very common, especially in cases of High Functioning ASD. It can sometimes take the form of Tourette syndrome. Sometimes ticks can be the main reported problem for children with ASD and their parents coming for evaluation and treatment.



Depressive manifestations:

It is considered the most common psychiatric complication especially in cases of High Functioning ASD.

A person with ASD may experience depression as:

A. *Has difficulty meeting the growing social demands,*
B. *Negative interactions between their own manifestations that are misunderstood and the inappropriate attitudes of others and,*
C. *A growing empathy of his diversity.*

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