**Psychotic disorders**

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**Schizophrenia**

- Found in all societies and countries with equal prevalence & incidence worldwide.

- A life prevalence of 0.6 – 1.9 %

- Annual incidence of 0.5 – 5.0 per 10,000

- Peak age of onset are 10-25 years for ♂ & 25-35 years for ♀

***Etiology***

Exact etiology is unknown.

**1- Stress-Diathesis Model:**

Integrates biological, psychosocial and environmental factors in the etiology of schizophrenia.

Symptoms of schizophrenia develop when a person has a specific vulnerability that is acted on by a stressful influence.

**2- Neurobiology**

Certain areas of the brain are involved in the pathophysiology of schizophrenia: the limbic system, the frontal cortex, cerebellum, and the basal ganglia.

1. ***Dopamine Hypothesis***;

Too much dopaminergic activity ( whether it is **↑**release of dopamine, ↑ dopamine receptors, hypersensitivity of dopamine receptors to dopamine, or combinations is not known ).

Other Neurotransmitters;

Serotonin, Norepinephrine, GABA, Glutamate & Neuropeptides

1. ***Neuropathology*;**

Neuropathological and neurochemical abnormalities have been reported in the brain particularly in the limbic system, basal ganglia and cerebellum. Either in structures or connections.

1. ***Psychoneuroimmunology*;**

↓ T-cell interlukeukin-2 & lymphocytes, abnormal cellular and humoral reactivity to neurons and presence of antibrain antibodies.

These changes are due to neurotoxic virus ? or endogenous autoimmune disorder ?

1. ***Psychoneuroendocrinology*;**

Abnormal dexamethasone-suppression test

↓ LH/FSH

A blunted release of prolactin and growth hormone on stimulation.

**3- Genetic Factors**

A wide range of genetic studies strongly suggest a genetic component

These include: family studies, twin studies and chromosomal studies.

**4- Psychosocial Factors:**

no well-controlled evidence indicates specific family pattern plays a causative role in the development of schizophrenia.

High Expressed Emotion family: increase risk of relapse.

***Diagnosis***

DSM-5 Diagnostic Criteria for Schizophrenia:

A- ≥ two characteristic symptoms for one month, at least one of them is (1),(2) or (3)

1- Delusions

2- Hallucinations

3- Disorganized speech (frequent derailment or incoherence)

4- Grossly disorganized or catatonic behavior

5- Negative symptoms ( diminished emotional expression or lack of drive (avolition))

B- Social, Occupation or self-care dysfunction

C- Duration of at least 6 months of disturbance (include at least one month of active symptoms that meet Criterion A; in addition of periods of prodromal and residual symptoms).

D- Schizoaffective & mood disorder exclusion

E- The disturbance is not due to Substance or another medical condition.

F- If there is history of autism spectrum disorder or a communication disorder of childhood onset, schizophrenia diagnosis is made only if delusion or hallucinations plus other criteria are present.

***Clinical Features***

* No single clinical sign or symptom is pathognomonic for schizophrenia
* Patient's history & mental status examination are essential for diagnosis.
* Premorbid history includes schizoid or schizotypal personalities, few friends & exclusions of social activities.
* Prodromal features include obsessive compulsive behaviors, attenuated positive psychotic features.
* Picture of schizophrenia includes positive and negative symptoms.
* Positive symptoms like: delusions & hallucinations.
* Negative symptoms like: affective flattening or blunting, poverty of speech, poor grooming, lack of motivation, and social withdrawal.

***Mental status examination***

* Appearance & behavior ( variable presentations)
* Mood, feelings & affect ( reduced emotional responsiveness, inappropriate emotion)
* Perceptual disturbances ( hallucinations, illusions )
* Thought: Thought content ( delusions)

Form of thought ( looseness of association)

Thought process ( thought blocking, poverty of thought content, poor abstraction, perseveration )

* Impulsiveness, violence, suicide & homicide
* Cognitive functioning
* Poor insight and judgment

***Course***

Acute exacerbation with increased residual impairment

Full recovery: very rare

Longitudinal course: downhill

* **Differential Diagnosis**

**Secondary psychiatric disorders:**

Substance-induced disorders

Psychotic disorders due to another medical disorder :

* Epilepsy (complex partial)
* CNS diseases
* Trauma
* Others

**Primary Psychiatric disorders:**

Schizophreniform disorder

Brief psychotic disorder

Delusional disorder

Schizoaffective disorder

Mood disorders

Personality disorders ( schizoid, schizotypal & borderline personality)

Factitious disorder

Malingering

**Other Psychotic Disorders**

* Psychotic Disorders due to another medical condition
* Substance-induced psychotic disorder
* Schizophreniform disorder;
* 1-6 month of disturbance
* Brief psychotic disorder:
* <1month of disturbance
* Delusional disorder (delusion only >1m)
* DSM-5 Diagnostic Criteria for Schizoaffective disorder

1. An uninterrupted period of illness that includes either a major depressive disorder or a manic episode along with at least two active symptoms of schizophrenia (hallucinations, delusions, disorganized speech, severely disorganized or catatonic behaviors, negative symptoms like decreased emotional expression or movement)
2. Delusions or hallucinations occur at least two weeks without major depressive or manic symptoms at some time during the illness.
3. The major mood symptoms occur for most of the duration of the illness.
4. The illness is not the result of a medical condition or the effects of alcohol, other drugs of abuse, or a medication.

* Substance-Induced psychiatric Disorder

Potentially severe, usually temporary.

Context of substances of abuse, medications, or toxins of any of the 10 classes of substances.

Clinically significant presentation of a secondary psychiatric disorder.

* Evidence in history, PE, MSE and labs of:
* Develop during or within 1 month of use
* Capable of producing mental disorder seen
* Not an independent mental disorder
* Preceded onset of use
* Persists for substantial time after use (more that a month after off of substance use)

**Treatment**

What are the indications for hospitalization?

* Diagnostic purpose
* Patient & other's safety
* Initiating or stabilizing medications
* Establishing an effective association between patient & community supportive systems

***Biological therapies***

* Antipsychotic medications are the mainstay of the treatment of schizophrenia.
* Generally, they are remarkably safe.

*Two major classes*:

1. Dopamine receptor antagonists ( haloperidol, chlorpromazine )
2. Serotonin-dopamine receptor antagonists ( Risperidone, clozapine, olanzapine ).

* Depot forms of antipsychotics eg. Risperidone Consta is indicated for poorly compliant patients.

*Electroconvulsive therapy (ECT)* for catatonic or poorly responding patients to medications

***Psychosocial therapies***

* Social skills training
* Family oriented therapies
* Group therapy
* Individual psychotherapy
* Assertive community treatment
* Vocational therapy

