

SCHIZOPHRENIA & OTHER PSYCHOTIC DISORDERS

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Organic v/s Functional

Psychiatric Disorders

Organic

Due to a demonstrable cerebral disease i.e. change in brain anatomy along with change in brain physiology is seen



Delirium
Dementia
Amnestic Syndromes

Functional

no clearly demonstrable cerebral disease i.e. No change in brain anatomy ; only change in brain physiology is demonstrable



Schizophrenia
Anxiety disorders
Depression
Mania

Psychosis v/s Neurosis

Psychiatric Disorders

Psychosis

Severe mental illness



Schizophrenia
Schizophreniform disorder
Delusional disorder
Brief psychoses
Shared Psychoses

Neurosis

Mild to moderate mental illness



Anxiety disorders
Impulse control disorders
Eating disorders
Dissociative disorders
Somatoform disorders
Psychosomatic Disorders
Adjustment Disorders

Psychosis v/s Neurosis

Feature	Psychosis	Neurosis
Contact with reality (Reality Testing)	Absent	Present
Delusions	+	-
Hallucinations	+	-
Personality and Behaviour	Severely disturbed	Mildly disturbed
Insight	-	+

Schizophrenia & other Psychotic disorders

- Brief Psychotic Dis.
- Schizophreniform Dis.
- Schizophrenia.
- Delusional Dis.
- Schizo affective Dis.
- Shared Psychotic Dis.
- Psychotic Dis. due to Gen. medical condition
- Psychotic Dis. NOS

SCHIZOPHRENIA

- **Definition:**

A SYNDROME CHARACTERISED BY
DISTURBANCES IN
COGNITION
EMOTION
PERCEPTION, AND ,
OTHER ASPECTS OF BEHAVIOUR

HISTORY

- Ayurveda
- Morel (1809-1873): Dementia Precoce
- Kalbaum : Catatonia
- Hecker : Hebephrenia
- Emil Kraepelin (1856-1926) : Dementia Praecox V/S MDP
- Eugene Bleuler (1857-1939) : “Schizophrenia” 4 A’s- ambivalence, autism, association, affect
Secondary symptoms, Delusions & Hallucinations
- Kurt Schneider : 1st Rank Symptoms, Hallucinations, Thought Alienation, Passivity (made), Delusional Perception

Kurt Schneider....

- **1st Rank:** -Audible Thoughts
 - Voices Arguing or Discussing
 - Voices Commenting
 - Somatic Passivity
 - Thought Withdrawal
 - Thought Broadcasting
 - Delusional Perceptions

Kurt Schneider....

- **2nd Rank** :-Other disorders of Perception
 - Sudden Delusional Ideas
 - Perplexity
 - Depression or Euphoric Mood
 - Feelings of Emotional
Impoverishment

EPIDEMIOLOGY

- **Lifetime Prevalence**:- 1% (0.6-1.9%)
- **Gender** :- Equal
- **Age** :-70% before age 25 yrs, males earlier onset
- **Medical Illness**:- Accidents, suicides, undiagnosed illness, iatrogenic- more common
- **Substance Abuse**:- more common >50% Tobacco & Caffeine, alcohol & cannabis. Worsens Symptoms
- **Socioeconomic & Cultural** Factors:- Starts early , Life long, very high cost burden (> all cancers put together)

ETIOLOGY

A) Genetic :

Higher incidence in 1st & 2nd degree relatives.

CR --- 50% in MZ Twins

10% in DZ Twins/ 1st degree relative

- Gen. population —1%
- Non Twin Sibling —8%
- Child with 1 parent schiz —12%
- DZ Twins --12%
- Child with both parent “ --40%
- MZ Twins --50%

ETIOLOGY... Genetic

- **ADOPTION STUDIES:**
- **Nature of Transmission**
not one but several gene make contribution to Vulnerability--- 9 linkage sites i.e. 1q,5q,6p,6q,8p,10p,13q, 15q &22q.
- **VULNERABILITY- LIABILITY MODEL**
ENVIRONMENTAL & PSYCHOSOCIAL FACTORS CONTRIBUTE

ETIOLOGY

B) BIOCHEMICAL FACTORS:

- **DOPAMINE HYPOTHESIS** : increased DA activity especially D2 due to
 - Too much DA
 - Increased DA receptors
 - Receptor hypersensitivity
 - Combination of factors

Especially in **MESOCORTICAL, MESOLIMBIC** Tracts

Increased D2 receptors in **Caudate nucleus, amygdala**

Decreased density of DA Transporter

ETIOLOGY... Biochemical

- **SEROTONIN** : excess may cause +ve/ -ve symp
- **NOREPINEPHRINE**: anhedonia
- **GABA** : decrease neurons in Hippocampus
- **GLUTAMATE** : Phencyclidine an antagonist- induces Psychosis. Glutamate Hypothesis include-hypoactivity, hyperactivity, glutamate induced neurotoxicity
- **NEUROPEPTIDES** : Substance P, Neurotensin
- **ACETYLCHOLINE & NICOTINE** : Decrease in Muscarinic / Nicotinic receptors in Caudate-Putamen , Hippocampus, Prefrontal cortex

ETIOLOGY

NEUROPATHOLOGY :

- Decreased size and functioning of **Limbic System, Basal Ganglia, Cerebral cortex(Prefrontal), Thalamus, Brain stem**
(reduced density of axons, dendrites, & synapses)
- **Basal Ganglia & Cerebellum:** correlation between movement disorders and psychological/ behavioral symptoms. Increased no. of **D2** receptors in **Caudate, Putamen & Nucleus Accumbens**
- Increased size of **Lateral & Third Ventricle**
- Reduced volume of **Cortical grey matter**
- Reduced **Symmetry** : Frontal, Temporal, Occipital
- Decreased **Glucose utilization** in Dominant Hemisphere

ETIOLOGY

Soft Neurological Signs:

- Abnormal Smooth **Eye Pursuit** Movements
- **EEG Abnormalities** – Increased sensitivity to Activation procedures, Spikes, Reduced Alpha waves, Increased Theta & Delta
- **Evoked Potential:** Decreased **P 300** than in controls, children as predictors for 295.
N100-Larger
- **Viral Hypothesis:** In Utero Exposure to Influenza, Rubella. Retroviral infection, Active Viral Infection.

ETIOLOGY.... Neuropathology

- **Auto Immune** like RA, SLE
- **Psycho Neuro Endocrinology:**
Abnormal DST, non suppression of DST
poorer long term Prognosis
- **LH /FSH** : Decreased

ETIOLOGY...

Psychosocial & Psychodynamic

- **Sigmund Freud**: Fixation to earlier Stage of Psychosexual Development.
Ego Disintegration leading to Regression to a period before Ego (Reality) Development
- **Margaret Mahler**: Abnormal Development of Mother- Child Relationship
- **Harry Stack Sullivan**: Disturbance in Interpersonal Relatedness.

Severe Anxiety Leads to Unrelatedness

295 is an Adaptive method to Avoid Panic, Terror, Disintegration

ETIOLOGY...

Psychosocial & Psychodynamic

- **Stressful Life Events** in Vulnerable Individuals , at Vulnerable age
- **Learning Theories:** Learn irrational Reactions & ways of thinking
- **Family Dynamics :**
 - Characteristics** of Mother, Father
 - Double Bind:** Gregory Bateson & Donald Jackson
 - Marital Schisms & Skew:** Theodore Lidz
 - Pseudomutual & Pseudohostile Families:** Lyman Wynne
 - Expressed Emotions** (Criticism, Hostility, Emotional Over involvement)

ETIOLOGY...

Sociocultural & Environmental

- **295 more in lower Socio-economic Strata**
- **Breeder Hypothesis**
- **Drift Hypothesis**
- **Treatment Availability**
- **Immigrants greater Incidence**

Diagnostic Criteria

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TABLE 6.2 Diagnostic Features of Schizophrenia

For an individual to be diagnosed with schizophrenia, he or she must meet all of the criteria listed in A–F.

- A. Two (or more) of the following symptoms must be present for a significant portion of time during a one-month period (although this can be less if the individual is successfully treated). At least one symptom must be from the first three categories.
 - 1. Delusions
 - 2. Hallucinations
 - 3. Disorganized speech
 - 4. Grossly abnormal psychomotor behavior
 - 5. Negative symptoms such as restricted affect, avolition, and asociality
- B. Occupational dysfunction
For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, the person fails to achieve expected level of interpersonal, academic, or occupational achievement).
- C. Duration of at least six months
Continuous signs of the disturbance must persist for at least six months. During at least one of these six months, the person must show the active-phase symptoms from Criterion A (or less if the person was successfully treated). The six months may include periods during which the individual had symptoms leading up to (prodromal) or following (residual) an active phase. During these periods, the person must show only negative symptoms or two or more of the active-phase symptoms but in attenuated form.
- D. No evidence of schizoaffective, depressive, or bipolar disorder
- E. Symptoms are not due to substance use disorder or general medical condition
- F. If there is a history of autism spectrum disorder or a communication disorder of childhood onset, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are also present for at least a month (or less if successfully treated).

Diagnostic Criteria

- A) Characteristic Symptoms (>2) 1 mth period at least one of the first three
 1. **DELUSIONS**
 2. **HALLUCINATIONS**
 3. **DISORGANISED SPEECH**(derailment)
 4. **DISORGANISED BEHAVIOUR** or **CATATONIC** behaviour
 5. **NEGATIVE SYMPTOMS** : ALOGIA, AVOLITION, AMOTIVATION

Diagnostic Criteria

- B) **SOCIAL & OCCUPATIONAL DYSFUNCTION** : in one or more areas i.e. work, interpersonal, self-care, below earlier level achieved
- C) **DURATION** : 6 Months
- D) **Exclusion** of SCHIZOAFFECTIVE & MOOD Dis
- E) **Exclusion** of SUD & GEN. MEDICAL Dis
- F) **Relationship** to ASD/ PDD

Diagnostic Criteria

- CLASSIFICATION OF LONGITUDINAL COURSE :
after 1 year of elapsed time since onset
 - Episodic** with Inter episode Residual symp
 - Episodic** with NO”
 - Continuous**.... Specify with prominent
Negative symptoms
 - Single Episode** in Partial Remission
 - Single Episode** in full remission

Signs & Symptoms

Thought & Speech :

- Delusions**- Persecution, Reference, Grandeur, Control, Somatic, Reflex.....
- Idiosyncratic & Illogical**, Identical Predicates, Pathological symmetry, Autistic
- Stilted speech**
- Loosening of association**, Incoherence
- Thought Blocking**, insertion, withdrawal, broadcasting
- Neologisms** (new words/ distorted way)
- Mutism, Poverty of thoughts**
- Echolalia**
- Perseveration**
- Over inclusion**
- Perplexity**
- Ambivalence**
- Concretization**, loss of abstract thinking

Signs & Symptoms

Perceptual Disorders :

Illusions

Hallucinations :

Auditory - Structured/ unstructured

Visual - Formed/ unformed

Olfactory

Tactile

Gustatory

Reflex

Signs & Symptoms

Disorders of Motor Behavior :

- Reduced **Psychomotor Activity**:- “inertia”, withdrawal, Stupor
- Increased Psychomotor activity :- excitement, agitation, Violence
- Mannerisms**
- Stereotypes**
- Negativism**
- Posturing / Waxy Flexibility**
- Echopraxia**
- Automatic Obedience**
- Loss of body's Natural Grace**
- Lack of self care / Poor personal Hygiene**

Signs & Symptoms

Negative / Residual Symptoms :

Affect –Flat & Blunted

Attention -poor

Apathy

Avolition

Asociality

Anhedonia

Alogia

Signs & Symptoms

Disorders of Affect :

Apathy

Anhedonia

Blunting of Emotions/ Shallowness

Inability to Establish Emotional contact

Inappropriate Depression / Mania

Signs & Symptoms

Miscellaneous Symptoms :

Variability

Loss of Ego Boundaries

Suicide

Work Performance reduced

Somatic Symptoms – Vague

Lack of Insight

Poor Judgement

Subtypes of Schizophrenia

- **Paranoid:** Preoccupation with 1 or more delusions or frequent Auditory Hallucinations
- **Disorganised:** Prominent **Disorganized speech/Behaviour, Flat /inappropriate affect**
- **Catatonic :** motor immobility i.e.,catalepsy, stupor ; excessive motor activity; negativism; posturing,mannerisms,grimacing, stereotype
- **Undifferentiated:**
- **Residual :** absence of delusions, hallucinations disorg.speech/ behaviour, catatonia

Subtypes of Schizophrenia

- **Bouffee Delirante:** Delusional Psychosis <3mths
- **Latent**
- **Oneroid:** dream like state, confusion, disorientation
- **Paraphrenia:**
- **Pseudoneurotic:** Pan anxiety, Pan phobia, Pan sexuality, OCD
- **Post psychotic Depression:**
- **Early onset Schizo...:** in childhood
- **Late onset Schizo...:** after 45 years
- **Deficit Schizophrenia:** Negative Symptoms

DIFFERENTIAL DIAGNOSIS

- **MDD / BAD with psychotic or catatonic features**
- **SCHIZOAFFECTIVE DIS.**
- **SCHIZOPHRENIFORM**
- **DELUSIONAL**
- **SCHIZOTYPAL PERSONALITY DIS.**
- **OCD AND BODY DYSMORPHIC DIS.**
- **PTSD**
- **AUTISM SPECTRUM DIS**

PROGNOSIS

GOOD Prognostic Signs

- Acute / Abrupt Onset
- Precipitating Factors
- Age of onset
- Pre Morbid Personality
- Type of Schizophrenia: Catatonia/ Paranoid / Disorganised
- Affective Symptoms
- Duration of illness : Early

PROGNOSIS

- Previous Episode
- Family History : Depression V/s Schizophrenia
- Physique: Endomorphic V/s Ectomorphic
- Sex
- Social Support
- Marital Status
- Treatment & Compliance
- Neurological Deficits

Course & Outcome

- Total Recovery /Cure
- Remission with Relapses
- Remission with minor Residual Deficits
- Stable Chronicity
- Severe Disability (Terminal deterioration)

Treatment & Management

- **PSYCHOPHARMACOLOGY:**

Typical V/S Atypical (FGA V/s SGA)

Mechanism of action-specificity

SIDE-EFFECTS:

“Metabolic Syndrome”

Extrapyramidal side effects

Cardiac S.E.

Cognitive S.E.

- Acute / Maintenance
- Oral / Injections / Depot / Surreptitious

- **ECT**

- **MISCELANEOUS**

- PsychoSurgery (limbic Leucotomy), megavitamin, Insulin Sub coma, high dose Propanolol

- **PSYCHOSOCIAL**

- Psycho Education, Group / Family therapy, Individual/ Support Psychotherapy, Social Skill Training
- Milieu Therapy, Half way homes, Rehabilitation

THANK YOU