Schizophrenia

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Introduction

- Severe mental illness characterized by variable but profound psychopathology of thoughts, perception ,emotions and cognition.
- Usually begins in late adolescent and early adulthood
- Runs a chronic course
- Affects 1 in 100 , regardless of social class
- Diagnosis is based entirely on psychiatric history and MSE

History

- Emil Kraepelin : dementia precox
- Eugene Bleuler: coined the term Schizophrenia, The four As – association, affect, autism, ambivalence
- Kurt Schneider: First rank symptoms
- Karl Jaspers: phenomenology of mental illness

ICD-10 schizophrenia

1. *At least one of the following*:
   - Thought echo, insertion, withdrawal, or broadcasting.
   - Delusions of control, influence, or passivity; clearly referred to body or limb movements or specific thoughts, actions, or sensations; and delusional perception.
   - Hallucinatory voices giving a running commentary on the patient's behaviour or discussing him/her between themselves, or other types of hallucinatory voices coming from some part of the body.
   - Culturally inappropriate or implausible persistent delusions (e.g. religious/political identity, superhuman powers and ability).
2. Or, *at least two of the following*:
   - Persistent hallucinations in any modality, when accompanied by fleeting or half-formed delusions without clear affective content, persistent over-valued ideas, or occurring every day for weeks or months on end.
   - Breaks of interpolations in the train of thought, resulting in incoherence or irrelevant speech or neologisms.
   - Catatonic behaviour such as excitement, posturing, or waxy flexibility, negativism, mutism, and stupor.
   - Negative symptoms such as marked apathy, paucity of speech, and blunting or incongruity of emotional responses.
   - A significant and consistent change in the overall quality of some aspects of personal behaviour, manifest as loss of interest, aimlessness, idleness, a self-absorbed attitude, and social withdrawal.
3. *Duration of ≥1mth*.

Epidemiology

- Lifetime prevalence 1 %
- Equally prevalent in men and women
- Peak age of onset: 10-25 yrs for men; 25-35 yrs for women
- Mortality: life expectancy 20% less than general population, suicide most common cause of premature death
- Morbidity: significant medical comorbidity

Aetiological theories

I. Genetic factors

- Genetic contribution: occur in increased rate in biological relatives of patients with schizophrenia
- Second degree relatives<first degree relative<dizygotic twin<monozygotic twin
- Family studies, twin studies, adoption studies

II. Biochemical factors

Dopamine hypothesis

- Increase in dopaminergic activity – positive symptoms
- Decrease in dopaminergic activity – negative symptoms
- Efficacy of antipsychotic drugs
- Worsening with cocaine and amphetamine

Serotonin

- Serotonin antagonist activity of second generation antipsychotics

Glutamate

- NMDA receptor antagonists- induce both positive and negative symptoms of schizophrenia

GABA

- Loss of GABA inhibition leads to over activity in other neurotransmitter systems

III. Neurodevelopmental hypothesis

- Excess of obstetric complications
- Motor and cognitive problems which precede the onset of illness
- Abnormalities of cerebral structures - widespread reduction in grey matter, ventral and third ventricular enlargement, prefrontal cortex, basal ganglia and cerebellum
- Dermatoglyphic and dysmorphic features

IV. Psychoanalytical theories

- Developmental fixations produce defects in ego development
- Psychotic symptoms have meaning in schizophrenia

V. Family dynamics

Subtypes

I. Paranoid schizophrenia
II. Disorganized schizophrenia
III. Catatonic schizophrenia
IV. Undifferentiated schizophrenia
V. Post-schizophrenic depression
VI. Residual schizophrenia
VII. Simple schizophrenia
VIII. Other schizophrenia
IX. Schizophrenia, unspecified

Clinical features

I. Thought

- Disorders of thought content: delusions

- Disorders of form of thought: loosening of association, derailment, incoherence, tangentiality, neologism, mutism

- Thought process: flight of ideas, thought blocking, poverty of thought content

II. Perceptual disturbances

- Hallucinations
- Illusions

III. Mood, Feelings and Affect

- Reduced emotional responsiveness
- Overly active and inappropriate emotions
- Extreme rage, happiness and anxiety

IV. Impulsiveness, Violence, Suicide and Homicide

V. Cognitive Impairment

VI. Judgment and Insight

Treatment

- Hospitalization:
  - For stabilization
  - For patients safety
  - Grossly disorganized or inappropriate behaviour
  - Inability to take care of basic needs

- Pharmacotherapy
  - FGAs – Haloperidol, chlorpromazine, trifluperazine
  - SGAs – olanzapine, risperidone, clozapine

- **Acute phase:**
  - Emergency treatment
  - Hospitalization
  - Injectable
  - Oral medicines

- **Maintenance phase:**
  - post acute phase
  - Continuing treatment
  - Comorbid depression/substance abuse
  - Managing negative symptoms

- **Rehabilitation:**
  - Medication
  - Psychotherapy
  - Community integration