Psychotic Disorders- Schizophrenia

Schizophrenia is the most common psychotic disorder characterized by abnormalities in perception,beliefs, and thought processing

Epidemiology

Life-time prevalence is about 1% in the general population.

The first onset is typically between 15-45 years although men exhibit symptoms earlier than men.

Pathophysiology

Schizophrenia is associated with dopamine hyperactivity in the mesolimbic cortex of the brain in the basal ganglia.

Clinical features

(positive symptoms)

1. **Hallucinations**: sensing things while awake that appear to be real, but instead have been created by the mind.

Types of hallucinations

(a). Auditory hallucinations: Hearing voices when no one has spoken (the most common type of hallucination). These voices may be may command someone to do something that may cause harm to themselves or to others. Hearing sounds, such as music, footsteps, windows, or doors banging

(b) Visual hallucinations: Seeing patterns, lights, beings, or objects that are not there.

(c) Olfactory hallucinations: Smelling a foul or pleasant odor. Odors are smelled that appear to be coming from a specific or unknown place.

(d). Tactile hallucinations: Feeling bodily sensations, such as a crawling feeling on the skin or the movement of internal organs

2. Delusional beliefs are very common especially persecutory delusion. Ideas of reference are in which unrelated notices, signs or remarks are believed to be messages with specific meaning for the patient.

3. Thought insertion, thought broadcast, and thought withdrawal. The patient believes that other people know what they are thinking either because they can be heard or they
are transmitted through TV or Radio

4. formal thought disorder: individuals have difficulty in expressing their thoughts. Have loosening of associations, word salad, or neologism.

5. Excitement or agitation

6. Hostility or aggressive behavior

7. suicidal tendencies.

8. Suspiciousness or ideas of reference

Negative symptoms

Alogia: refers to difficulty with speaking. In some schizophrenic patients, alogia manifests as reduced total speech output, and reduced verbal fluency (the ease with
which words are chosen). Patients displaying alogia struggle to give brief answers to questions

Asociability: impairment in social relationships which include little interest in being with other people, poor social skills, and few friends

Avolition/apathy: the inability or lack of energy to engage in routine .e.g poor grooming and personal hygiene.

Anhedonia: inability to feel pleasure. Lack of interest in or enjoyment in activities or relationships.

Affective blunting: decreased facial expression

Types of schizophrenia

Disorganized Schizophrenia- This is a disorder characterized by incoherence, foolishness and regressive behavior.

Paranoid Schizophrenia- This is a disorder characterized by delusions of persecution or grandeur.

Undifferentiated Schizophrenia- This disorder is characterized by a variety of symptoms found in several of the types of schizophrenia also called simple schizophrenia

Hebephrenic schizophrenia- Characterized by :

– Silly and childish behavior
– Prominent affective symptoms
– Delusions commons

Residual schizophrenia: absence of prominent delusions , hallucinations, disorganized behavior with the presence of odd beliefs or negative symptoms

Catatonic schizophrenia: characterized by marked disturbance of motor behavior. May take the form of catatonic stupor, catatonic excitement or alternating between stupor and excitement.

Catatonic excitement presents with:

increased psychomotor activity ie restlessness, agitation, and excitement

Increase in speech production

Loosening of association

Catatonic stupor presents with:

– Mutism : lack of speech
– Rigidity : maintenance of posture against efforts to be moved
– Waxy flexibility : parts of the body can be placed in positions that will be maintained for a long period of time.
– Stupor : does not react to surrounding and appears to be unaware of them

Schneiderman first-rank symptoms of schizophrenia

• Auditory hallucinations
• Delusions of control
• Thought broadcasting
• Thought withdrawal
• Thought insertion.
• Somatic passivity: bodily sensations are experienced as imposed on the body by an external force.
• Made volition or acts: one own acts are experienced as being under the control of the external force

Bleuler's Four A's of schizophrenia

• Eugene Bleuler cited other symptoms called Bleulers Four A's symptoms which include:
• Autistic thinking: thought process in which individual is unable to relate with others or the environment
• Ambivalence: contradictory or opposing emotions. Desires for the same person but feels bad about him/her.
• Associative looseness: inability to think logically.
• Affective disturbance; inability to show an appropriate emotional response

Etiology

• Biochemical imbalances ; over activity of dopamine within mesolimbic cortex.
• Environmental factors e.g. trauma during childhood.
• Genetic causes : high prevalence rates in relatives of schizophrenic

Differential diagnosis

• Mania ;characterized by prominent affective features like grandiosity, over activity and lability of mood
• Depression ; chronic schizophrenia may mimic or coexist with depression.
• Drug induced psychosis present with hallucinations and delusions
• Dementia presents with impairment in thinking

• Schizoid personality disorder present with delusions
• Schizotypal personality disorder presents with delusions.

Medical management

Acute phase : older or typical antipsychotics e.g. largactil or haloperidol have most effect on positive symptoms of schizophrenia. Chlorpromazine is more sedating

Patients may benefit from augmentation of antipsychotics with benzodiazepines e.g. diazepam and lorazepam.

Commonly used Convectional antipsychotics drugs are;

• Chlorpromazine 300-1500mg/day PO,50-100mg/day IM.
• Fluphenazine decanoate 25-50mg every month.
• Haloperidol 5-100mg/day PO,5-20mg/day IM
• Commonly used atypical antipsychotics are:
• Clozapine 25-450mg/day PO
• Risperidone 2-10mg/day PO
• Olanzapine 10-20mg/day PO
• Quetiapine 150-750 mg/day PO
• Ziprasidone 20-80mg/day PO

Clozapine may cause agranulocytosis-potentially fatal blood disorder marked by low white blood cell count and neutrophil depletion

Chronic phase: depot antipsychotic injections e.g. modecate (fluphenazine) may be used in patients with poor compliance

Use of newer antipsychotics e.g. clozapine, olanzapine ,risperidone.

3.ECT: is indicated for catatonic schizophrenia and severe depressive symptoms accompanying schizophrenia.

4. Psychotherapy: counselling and advise to the patient

5. Behaviour therapy : patient is taught appropriate behaviour by direct instruction

6. Rehabilitation services to provide opportunities to increase skills in living such as vocational rehabilitation.

7. Outpatient treatment to provide aftercare, maintenance therapy, social support programs and medical clinics

Nursing management

• The first priority is to ensure safety of the patient and others.

Remove all dangerous objects from surrounding.

• Protect the patient during acute episodes from absconding and suicide attempts

• Administer prescribed antipsychotics and note the progress and side effects

• Provide less stimulating environment e.g. dim light, less noise and comfortable bed.

• Approach the patient with calmness, emphathy and gentle eye contact

• Observe the patient behavior frequently and note any changes.

• Provide a structured environment with scheduled routine activities of daily living

• Apply mechanical restraints safely if there is a justified need.

Mechanical restraints applied too tightly may impair circulation.

• Assess the nature and severity of hallucinations

• Distract the patient from delusions that tend to exacerbate aggressive or potentially violent episodes. Distraction can be done by engaging patient in constructive activities.

• Encourage the patient to express feelings as much as possible.

- Provide food and fluid to the patient to meet the physiological needs of the body.
- Provide assistance with self care activities as required.