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WHAT IS **schizophrenia?**

DEFINITION

- Schizophrenia is a psychotic disorder.
- It is a mental illness characterised by continuous or relapsing episodes of psychosis.
- It is a type of psychosis causing severe thoughts and personality changes without any natural cerebral damage.

TYPES

- **Paranoid-** persecution thoughts (fear, behavioral disturbances)
- **Catatonic-** frozen behavior
- **Schizoaffective disorder-** Schizophrenia and depression.

SYMPTOMS

Positive symptoms

- Delusion
- Illusion
- Hallucinations
- Irrational conclusion
- Non sequential sentence
- Aggression
- Stereotype behavior

Negative symptoms

- Poor socialization
- Emotional blunting
- Demotivation
- Cognitive decline

SYMPTOMS

Positive

Negative



Delusions



Hallucinations



Disorganizes speech



Flattened affect



Reduced Speech



Lack Of Initiative

ETIOLOGY

Genetic predisposition

- Genes on chromosome on 1,5,6,8,11,12. **Neuregulin-1**
- Neuregulin-1 is responsible for normal development of muscles and nerves. Mutation
- of Neuregulin-1 cause Schizophrenia

Neurotransmitter hypothesis

It includes;

- Dopamine hypothesis
- Serotonin hypothesis
- Glutamate hypothesis

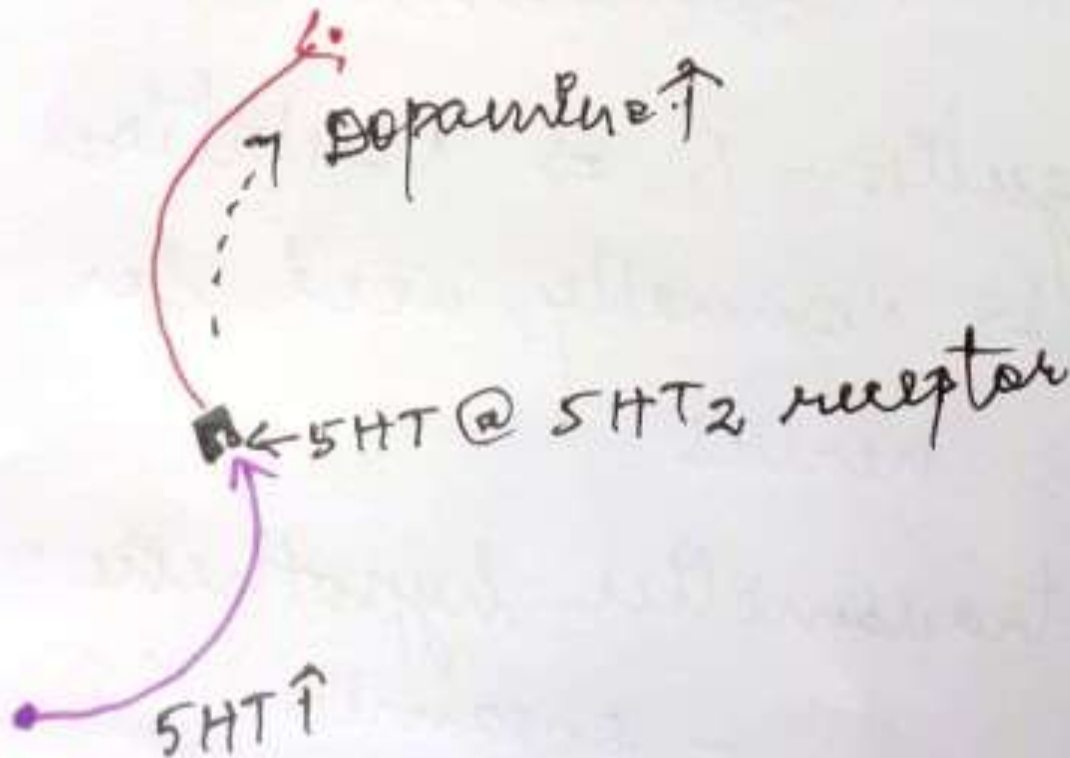
PATHOGENESIS

Dopamine hypothesis

- Increased Dopamine activity in the brain.
- Increased expression of Dopamine receptor in the brain.
- Dopamine modulators can increase Dopamine activity in the brain.
- Such as;
- Levodopa- precursor
- Amphetamine- release
- Apomorphine- agonist.

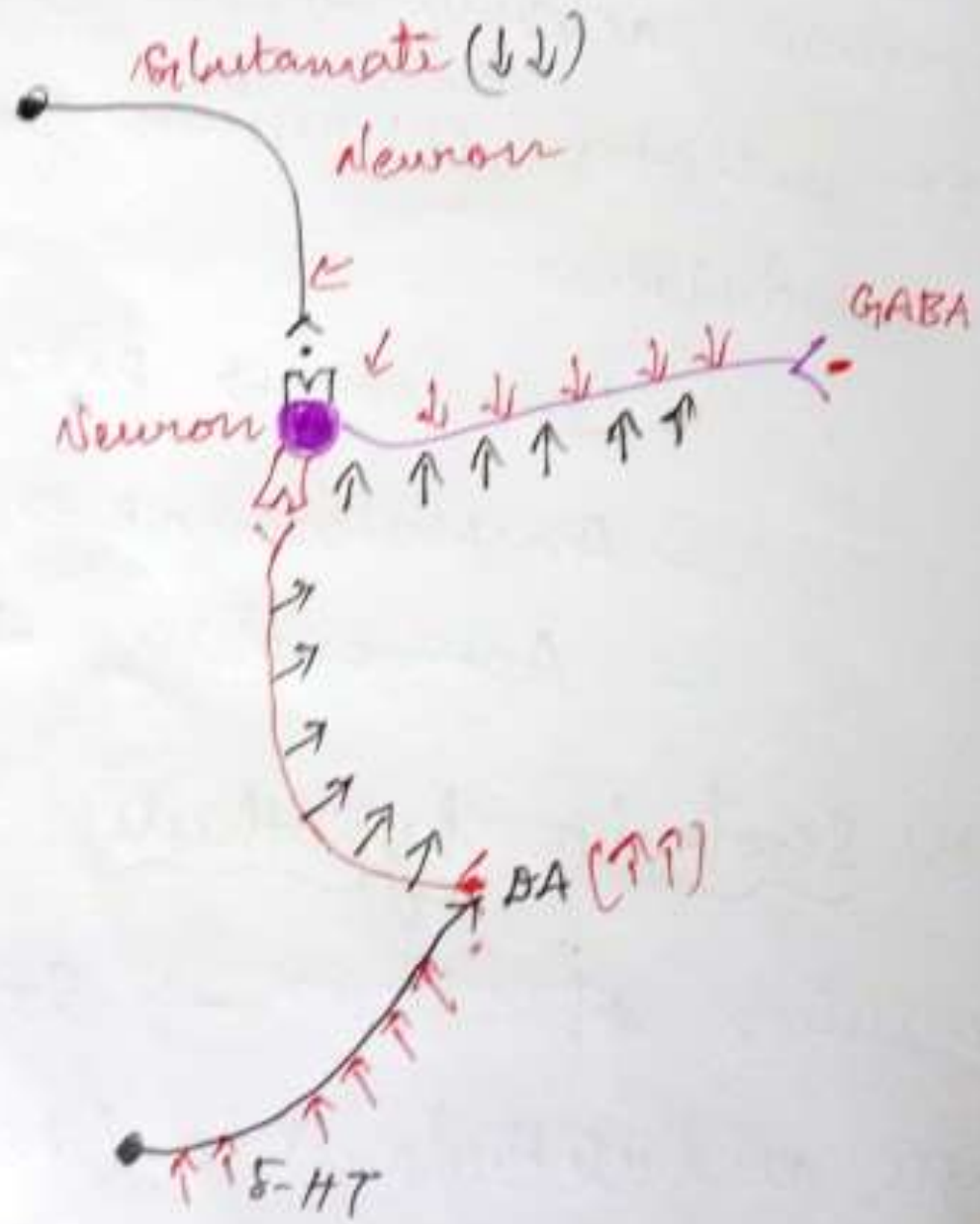
Serotonin hypothesis

- Increased expression of 5-HT cause Schizophrenia.
- Normally, 5-HT regulates Dopamine release in mesolimbic and striatal areas.



Glutamate hypothesis

- Decreased level of glutamate produce hallucinations and thought disorder.
- Decreased expression of glutamate receptor are seen in Schizophrenia patients.



Classification of antipsychotic drugs

Typical antipsychotics

- **Phenothiazines**
 - Chlorpromazine: 40-800 mg
 - Perphenazine: 12-64 mg
 - Fluphenazine: 1-40 mg
 - Thioridazine: 150-800 mg
- **Thioxanthenes**
 - Thiothixene: 6-30 mg
- **Butyrophenones**
 - Haloperidol: 1-100 mg
- **Dibenzothiazepine**
 - Quetiapine: 150-750 mg

Atypical antipsychotics

- Clozapine: 300-900 mg
- Risperidone: 4-16 mg
- Olanzapine: 5-20 mg

