

Concept Map Template

Primary Diagnosis: Schizophrenia

1. Describe the pathophysiology of the primary diagnosis in your own words. What are the patient's risk factors for this diagnosis?

Pathophysiology of Primary Diagnosis Neurochemical abnormality is due to imbalance of dopamine, serotonin, glutamate, and GABA results in psychosis of this disease. Dysregulation of dopamine transmission causes excessive activation of D2 receptors via the mesolimbic pathway which contributes to positive symptoms such as hallucinations and delusions of the illness. Moreover, low levels of dopamine in the nigrostriatal pathway causes motor symptoms. Furthermore, hypofunction of dopamine in the mesocortical pathway is associated with negative symptoms like flat affect and social withdrawal. Symptoms like amenorrhea and decreased libido are caused by elevated prolactin levels due to decreased availability of tuberoinfundibular dopamine because of blockage of the tuberoinfundibular pathway. Additionally, Glutamatergic dysfunction, particularly involving N-methyl-D-aspartate (NMDA) receptors, is implicated in cognitive deficits. Finally, structural and functional abnormalities in various brain regions, including the prefrontal cortex, hippocampus, and thalamus, further contribute to the disease.

Causes

- Unknown

Risk Factors (genetic/ethnic/physical)

- Physical; drug abuse (Cannabis cocaine, LSD or amphetamines use)
- Genetic predisposition; parent with the illness
- Psychological triggers; loss of job, bereavement, physical or sexual abuse, divorce, and end of a relationship
- Environmental factors; Abnormal fetal development and low birth weight, gestational diabetes, preeclampsia, maternal malnutrition, and vitamin D deficiency