

## ROLE OF INFLAMMATION IN PSYCHIATRIC DISORDERS

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### INTRODUCTION AND

### DISCUSSION

Presently psychiatry relies heavily on dysfunction in endogenous monoamine system hypotheses. Pathophysiology of depression, anxiety, bipolar, schizophrenia is explained on bases of disturbance of neurotransmitters .Available treatments in psychiatry have not been successful in restoring normal functionality. Inflammatory products like cytokines have been implicated in pathophysiology of psychiatric disorders. Cytokines can modify neurotransmitters, neural and glial plasticity across BBB. Greater incidences of inflammatory disease like cardiovascular and autoimmune diseases and increased incidence of psychiatric co morbidity like depression in inflammatory disease like ankylosing spondylitis, rheumatoid arthritis psoriasis. Patient treated with interferon are at greater risk of having psychiatric illness. Bilateral relation between psychiatric and inflammatory disease suggest common underlying pathophysiological process is at work. Inflammatory mediators like IL-6,IL2, TNFalpha CRP are implicated in pathophysiology

of psychiatric illness. Oxidative stress is closely related to the inflammation. Oxidative stress effect methylation of DNA causing increase susceptibility of psychiatric disorder. Homocystine level are increased in various inflammatory diseases. It is found elevated in various psychiatric illness like depression, addiction, and etc.

Chronic inflammation may act as catalyst in different form of addiction. Inflammation precedes in preponderant majority of addiction patient. Increase of glutamatergic tonus and decrease of dopaminergic neurotransmission in nucleus accumbens and hypothalamus.

Role of anti-inflammatory is currently being investigated as treatment option in psychiatric diseases. Among these are included celecoxibs, minocycline, N-acetylcysteine are important. Homocystine lowering food supplement like methyl folate, B6, B12, B12, Methionine. SAMe has shown good results in resistant cases of depression.

N-acetylcysteine is currently used as mucolytic agent. It is precursor of glutathione, and has anti-inflammatory, antioxidant, homocystine reducing, anti-glutamatergic and dopaminergic modulating properties. It has role in treatment of different type of addictions, bipolar disorder, schizophrenia, grooming disorder and OCD. Oxidative stress is cumulative interactional effect of all pathways. Standard treatment has shown limited efficacy in these disorders. N-acetylcysteine has emerged as promising adjuvant agent in treatment of psychiatric disorders. This novel agent has opened vistas of novel hypothesis based therapies in field of psychiatry.

**CONCLUSION:**

There may be different psychopathologies of various psychiatric disorders. Chronic Inflammation is may be a triggering factors which acts on the genetic predisposition or may be aggravating factor of disease. This description is reminiscent of unitary psychosis. Treatment with anti-inflammatory and antioxidant can alleviate psychiatric symptoms. It like antipyretic medication can lower down fever what ever is underlying cause.