Is Schizophrenia a REM Disorder?

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Opinion

The old say of troubled sleep reflects a troubled mind, the features of REM sleep of Atonic, physical, and dreaming as well as the characteristics of schizophrenia led us to hypothesize that Schizophrenia could be a REM disorder. The similarity between psychotic phenomena and dreams has stimulated interest in looking into if schizophrenia is a dream attack of REM while awake.

In schizophrenics, troubled sleep can be found in 30-80% of schizophrenic patients, depending on the degree of psychotic symptoms. Measured by polysomnography a number of sleep parameters, such as the amount of SWS and the REM latency, are significantly correlated to clinical variables, including severity of illness, positive symptoms, negative symptoms, outcome, neurocognitive impairment and brain structure [1]. The sleep disturbances of never treated schizophrenia patients are characterized by sleep-onset and maintenance insomnia and decreased REM latency [2].

All of schizophrenic symptoms have the potential to be explained by dream REM attack while awake. Delusions and hallucinations could clearly be linked to a dreamlike state, while disorganized speech and behavior could also be regarded as the physical manifestations of REM attack while awake and the confusion between awake and dream REM. The loss of interest, energy, and affect could be reasonably explained by chronic sleep deprivation secondary to abnormal sleep architecture in schizophrenics [3] especially the reduction in SWS and REM.

We looked into the effects of drugs used to treat schizophrenia and their effect on REM sleep. We found that the total number of anti-schizophrenic drugs that have been studied to show effect on REM sleep is 22 drugs, 14 (64%) of them has suppressive REM effect, 3 (14%) promote REM and 5 (22%) drugs have inconclusive effect on REM sleep (Table 1). This may also support our hypothesis that most of these drugs may work through suppression of the REM attacks during awake. We believe that future research has to be directed towards looking into the possibility of schizophrenia as a dream state related REM disorder.

Table 1: Shows effect of anti-schizophrenic drugs on REM sleep.

| Total number of drugs that have been studied | 22 | 100% |
| Decrease REM | 14 | 64% |
| Increase REM | 3 | 14% |
| Increase REM | 5 | 22% |

References
