

ABSTRACT

Recently, psychedelic drugs gain attention thanks to their potential to cure depressive disorders, anxious states or addiction. They are not causing addiction, they are not toxic and they trigger neuroplastic changes in tens of minutes or hours, which are essential for therapeutic purposes and positively correlates with an onset of antidepressant effect. Neuroplastic changes are simultaneously the connecting link between psychedelic state and sleep. In sleep the higher rate of neuroplasticity is markable during slow-wave sleep (SWS), which duration is getting shorter in patients with mental illness. The marker of neuroplasticity is slow-wave activity (SWA), which is getting higher not only in SWS, but also after intoxication with psychedelics or after long-time using of antidepressants. So the effect of psychedelics on sleep can be described as positive and inciting its therapeutical potential. The thesis is focused on ketamine which is the most recent one as for the topic of neuroplasticity and sleep.