Abstract

Cognitive deficit is a characteristic symptom of schizophrenia, which occurs in most of the cases. We can use animal models for better understanding of schizophrenia and to find possible treatment. As subjects of animal models are often used rats and mice, which can be administered various drugs (used to treat schizophrenia), or newly synthesized substances. The final effect is observed in different conditions. By blocking NMDA (N-methyl-D-aspartate), dopamine and serotonin receptors, we can model cognitive deficit. Thanks to the lesion in a particular area of the brain, specific parts involved in the deficit can be detected. The cognitive functions are often associated with hippocampus and prefrontal cortex. This thesis describes a theories of development of schizophrenia and relevant animal models. It also shows that research of cognitive deficits using animal models facilitates the development of appropriate drugs without adverse side effects.

Key words: schizophrenia, animal models, cognitive deficit, memory, attention, spatial navigation