Abstract

Psychedelics represent the group of psychotropics, which induce characteristic cognitive, perceptual and emotional symptoms. They are represented by simple indolamines (psilocybin or DMT), ergoline derivatives (LSD), and substituted phenylethylamines (mescaline). This work with a systematic approach to the problem attempts to characterize the underlying basis of physiological effects of psychedelics in brain. After the general characterization of hallucinogens, among which psychedelics belong to, the first part is focused on the common psychological and physiological actions and risks associated with them. Follows the pharmacological characterization of selected representatives especially with regard to their origin, ways of administration, effects, distribution and metabolization in body. A large part is devoted to the description of G-protein-coupled receptors functioning. The principal part is the last one, which describes mechanisms of action of psychedelics at the cellular level such as well as in different brain regions.