Historical overview of psychoactive mushrooms

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Humans have used psychoactive mushrooms for medical, recreational, religious and ritual purposes since pre-history. Previous studies have clarified that psychoactive mushrooms produce psychoactive agents such as psilocybin, psilocin, ibotenic acid, and muscimol. However, the status of psychoactive mushrooms in most countries as illegal hallucinogens has prevented full investigation of their biochemical properties. Recent studies have shown that many psychoactive agents pass through the blood-brain barrier and act on neurotransmitter receptors. Psilocybin and psilocin are 5-HT1A and 5-HT2A/C receptor agonists, respectively, while ibotenic acid is a glutamic acid receptor agonist and muscimol is a GABA receptor agonist. A new psychoactive agent, aeruginascin, has also been isolated from psychoactive mushrooms, and it is expected that more useful compounds will be discovered as the technology of component analysis advances. In addition, it has been shown that psilocybin and psilocin have high therapeutic efficiency for obsessive-compulsive disorder, which is a difficult-to-treat nervous disease. The increase of nervous diseases in modern society has thus given new importance to psychoactive mushrooms. In this review, we summarize the history of the use of psychoactive mushrooms, from pre-history to the modern age, describe their classification and distribution, survey previous studies, and discuss their therapeutic effects for difficult-to-treat nervous disease. The utilization and distribution of psychoactive mushrooms in Japan is given special attention, as there are few articles on this subject.
Humans have used psychoactive mushrooms for medical, recreational, religious and ritual purposes since pre-history. Previous studies have clarified that psychoactive mushrooms produce psychoactive agents such as psilocybin, psilocin, ibotenic acid, and muscimol. The newly updated Encyclopedia of Psychoactive Drugs, specifically written for young people, provides up-to-date information on a variety of substances that are widely abused in today's society. Each volume is devoted to a specific substance or pattern of abuse and is designed to answer the questions that young readers are likely to ask about drugs. An individualized glossary in each volume defines key words and terms, and newly enlarged and updated appendixes include recent statistical data as well as a special section on AIDS and its relation to drug abuse. The editors of the Encycloped...