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CASE REPORT

Prolonged hallucinogenic effects following *Psilocybe cubensis* ingestion: Case report

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ABSTRACT. *Psilocybe cubensis* is a widely used psilocybin-containing mushroom with well-documented acute psychoactive effects. We report a case of prolonged perceptual disturbances and flashbacks occurring weeks after ingestion, requiring psychopharmacological intervention. This case illustrates the potential for persistent neuropsychiatric symptoms following psilocybin intoxication and highlights the need for individualized treatment approaches. Given the increasing recreational use of psilocybin, enhanced harm reduction strategies and expanded clinical research are essential for effective management.

Key words: *Psilocybe cubensis; Psilocybin; Hallucinogens; Mushrooms; Poisoning.*

In recent years, there has been a steady increase in the recreational use of psilocybin-containing mushrooms. According to the Global Drug Survey (2021), the proportion of respondents reporting the use of 'magic mushrooms' rose from 8.6% in 2015 to 16.1% in 2021, representing a significant rise within just six years.[1] This trend has been attributed both to the increased availability of these species and to growing interest in their perceived positive effects on mood and creativity. Within this context, we present a clinical case of acute intoxication with *Psilocybe cubensis*, notable for the persistence of psychedelic symptoms beyond the acute phase.

CLINICAL CASE

A 23-year-old male with a history of occasional cannabis use and Tourette syndrome, with no medical follow-up in the past eight years, attended a medical consultation after experiencing persistent symptoms following ingestion of a psychoactive mushroom. During a social event, he ingested, for recreational purposes, a whole dried specimen (approximately 4 grams) of a mushroom commonly known as *hongo albino* ('albino fungus' in English). One hour after ingestion, he developed dysesthesias, visual and auditory hallucinations, paranoid ideation, and a sense of impending doom.

In the following days, and up to the time of his first medical consultation—21 days after ingestion—he experienced spontaneous episodes of symptom recurrence consistent with flashbacks. During the consultation, the patient provided one of the consumed specimens for identification, which a specialist confirmed as *P. cubensis* through mycological analysis.

During outpatient follow-up, symptomatic treatment with olanzapine and clonazepam was initiated to manage episodes of perceptual re-experiencing and residual psychotic symptoms. Over the subsequent five months, the patient reported a progressive reduction in flashbacks, with no recurrence of hallucinations or emergence of paranoid ideation. However, antipsychotic treatment was associated with a worsening of motor tics—characteristic of his underlying diagnosis—posing an additional clinical challenge. The last contact occurred during a telephone evaluation at month five, after which the patient was lost to follow-up.

DISCUSSION

P. cubensis is a psychoactive mushroom with a broad geographical distribution, classified within the family Hymenogastraceae. It is one of the most commonly used species of psilocybin-containing fungi due to its widespread availability and relative ease of cultivation. This species

Figure 1. The macroscopic characteristics of *P. cubensis* specimens can be observed across different stages of their development, revealing distinct morphological changes (Credits: A. Rockefeller).

commonly inhabits tropical and subtropical environments, thriving in warm, humid conditions, and is often found growing on the dung of large herbivores—particularly cattle—across regions such as the Americas, Southeast Asia, and northern Australia. Macroscopically, *P. cubensis* is distinguished by a cap (pileus) that transitions from conical or bell-shaped in youth to broadly convex with maturity, exhibiting a yellow-brown to golden coloration and a characteristic blue staining when handled, which reflects psilocybin oxidation (Fig. 1).[2]

Microscopically, it yields purplish-brown spore prints and displays ellipsoid, thick-walled spores. Fig. 2 shows selected microscopic features of the *P. cubensis* specimen.[3]

Due to its significant psilocybin and psilocin content, *P. cubensis* is one of the most thoroughly researched species within both recreational and clinical psychedelic contexts. Psilocybin acts as a prodrug, quickly converting in the body to psilocin, which produces psychoactive effects mainly by partially activating serotonin 5-HT2A receptors.[4] These receptors are primarily located in cortical and thalamic areas that regulate sensory perception and cognitive functions, leading to the characteristic alterations in consciousness, perception, and thought processes associated with psychedelic experiences.[5]

The symptoms observed in this case correspond to the well-documented acute and subacute effects of psilocybin, including perceptual disturbances, depersonalization, and lingering psychotic features.[6] Although delayed flashbacks, also known as hallucinogen persisting perception disorder (HPPD), have been reported previously, they are usually brief and self-resolving.[7] In contrast, this patient experienced unusually severe and prolonged symptoms, necessitating the use of psychopharmacological treatments such as antipsychotics and anxiolytics.

These findings underscore the necessity for individualized therapeutic strategies in the management of such cases. Moreover, with the growing use of psilocybin outside clinical environments, it is imperative to enhance harm reduction initiatives, promote comprehensive mental health education, and expand the clinical research framework to provide evidence-based guidelines for the effective treatment of these complex presentations.

Figure 2. Microscopic view of *P. cubensis* spores, captured at 1000x magnification using differential interference contrast (DIC) microscopy (Credits: A. Rockefeller).

CONCLUSIONS

This case highlights how *P. cubensis* ingestion can lead to persistent and severe perceptual disturbances, sometimes requiring pharmacological treatment. It underscores the need for personalized care and improved harm reduction and clinical guidelines in the context of rising psilocybin use.

Conflicts of interest

The authors declare no conflicts of interest.

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