

Introduction

- Refractory chronic pain, including neuropathic and complex regional pain syndrome (CRPS), is pain resistant to conventional therapies
- Psilocybin, a serotonin 2A agonist, may disrupt maladaptive pain circuits via neuroplasticity and anti-inflammatory effects
- This abstract evaluates psilocybin's efficacy, dosing, and safety in pain management, aiming to advance treatment modalities for chronic pain and to enhance functional outcomes.

Materials and Methods

- Literature review to evaluate the use of psilocybin for refractory chronic pain, utilizing both systematic reviews and case reports.

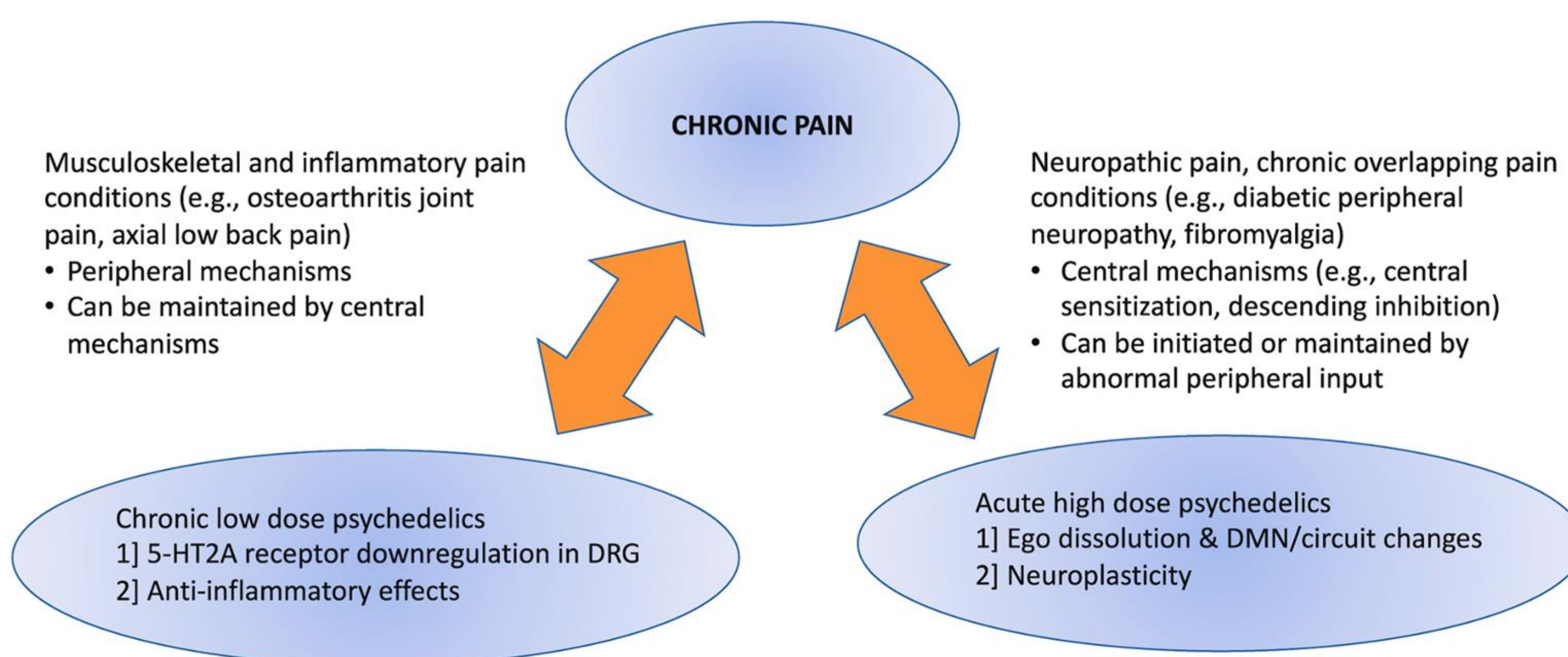
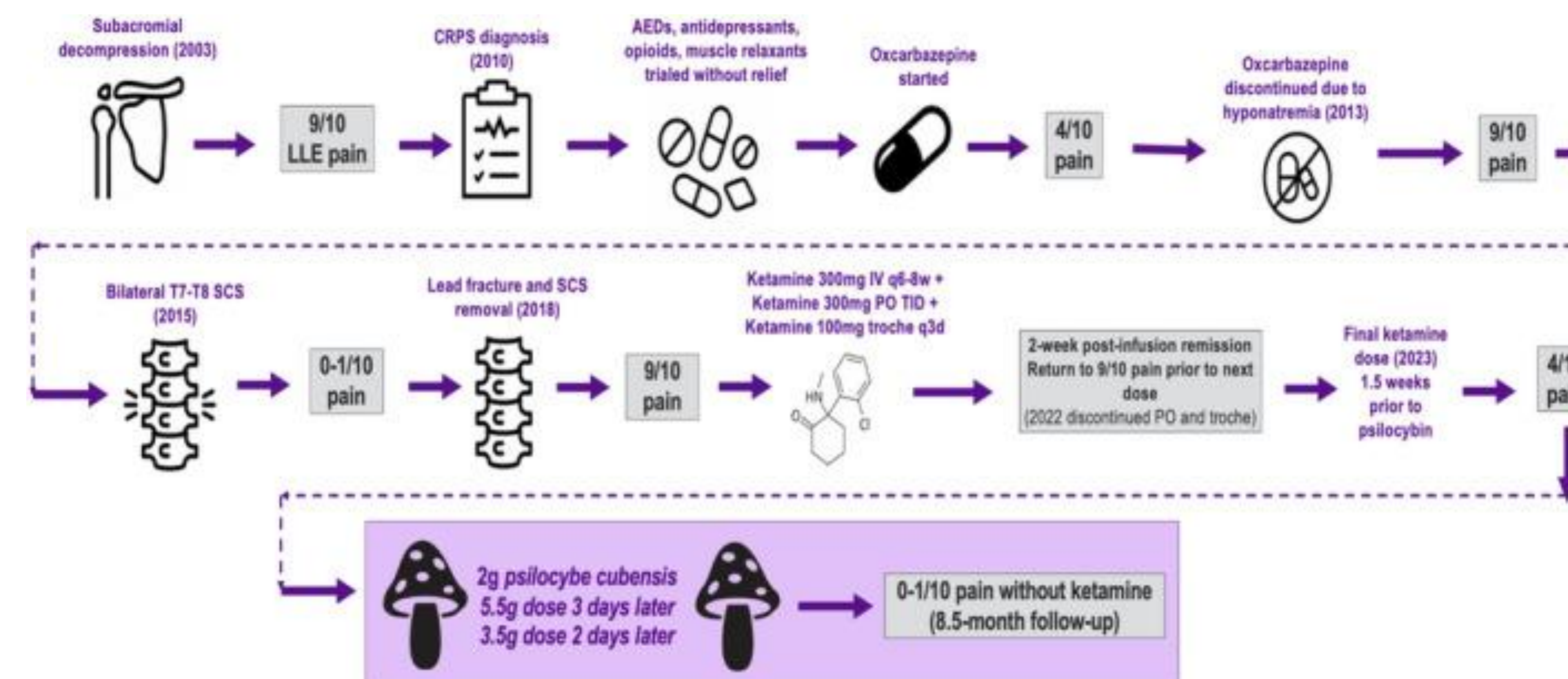


Figure 1. Psychedelics can be used for chronic pain, with dose-dependent use for different types of chronic pain. Chronic low dose psychedelics can help with MSK and inflammatory pain conditions, whereas acute high dose psychedelics can help with acute high dose psychedelics is more effective with neuropathic pain



Results

- Clinical evidence from case studies supports psilocybin's potential in managing refractory chronic pain.
- One case series revealed that microdosing psilocybin (0.1–0.3 g dried mushrooms, 1–3 times weekly) resulted in
 - 50–80% reduction in analgesic reliance
 - improved outcomes with concurrent physical therapy
 - absence of hallucinogenic effects or significant adverse events.
- Following a single 20 mg dose, one case of refractory CRPS demonstrated:
 - greater than 70% reduction in Visual Analog Scale (VAS) pain scores
 - sustained functional improvements in mobility observed at 6 months.
- A systematic review of 28 studies identified 0.14 mg/kg as a commonly effective dose for neuropathic pain relief
- Psilocybin also showed efficacy in conditions like headache and cancer-related pain, with psilocybin improving pain tolerance and overall function in 70–90% of reported cases and exhibiting minimal adverse events

Figure 2. Depicts a specific case of a patient with chronic regional pain syndrome (CRPS) who had been suffering years of pain at a 9/10 intensity. The pt had tried years of various medications such as AEDs, antidepressants, opioids, and eventually even IV + PO ketamine, with significant residual pain that would eventually worsen again. One and a half weeks after her final dose of IV ketamine, the patient consumed three doses of *Psilocybe cubensis* mushrooms. The first dose was 2 g, the 2nd dose was 3 days later at 5.5 g, and the 3rd dose was 2 days later at 5 g. Alongside the mushrooms, the patient participated in adjunctive neuromechanics, neurovisual modulation, and tactile reprocessing programming, which she had previously done without consuming mushrooms. For the following 9 months, the patient remained at 0-1/10 pain.

Discussion

- Psilocybin shows promise as a non-opioid therapy for refractory chronic pain, enhancing relief of chronic pain
- Case-level evidence suggests psilocybin creates a robust analgesic effect and improves functional gains
- RCTs are needed to standardize dosing and confirm mechanisms.
- Psychedelic-assisted pain management protocols are very important, as they could reduce opioid dependence

References

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