

Jaw-Dropping Relief - Ketamine Infusions for CRPS Lockjaw: A Case Report

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Introduction

A 51-year-old female with chronic regional pain syndrome (CRPS) and chronic facial muscle spasms had been experiencing recurrent episodes of locked jaw. Her condition originated from a head strike 30 years ago. She had a history of bilateral coronoidectomy and bilateral ankylosis, more severe on the left side. Recent treatments have shown limited success. She received her first round of bupivacaine injections, which kept her jaw unlocked for 7 days. A second round kept her jaw unlocked for 10 days, during which she could eat a normal diet for the first time in 30 years, managing pain with acetaminophen. The patient reported significant improvement and function since the start of bupivacaine, with a notable reduction in jaw locking. However, she recently experienced another episode of locked jaw 4-5 days post-trigger injections and was scheduled to return for re-treatment. She was referred to pain management due to the centralized source of pain.

Materials and Methods

As the case report is devoid of patient identifiable information, it is exempt from IRB review requirements as per Nassau University Medical Center policy. In this case, ketamine was used as an off-label indication to treat chronic pain.

Results

Ketamine infusions combined with bupivacaine injections were chosen to address the patient’s centralized pain. She was pretreated with intravenous midazolam before starting a ketamine infusion at 50-100 mg/hr. Her pain gradually reduced, and she remained cooperative, tranquil, and responsive to verbal commands, with stable respiratory and cardiovascular functions. The infusion was repeated for two consecutive days. The patient reported significant improvement, manageable pain, and gratitude for her care, stating her life had been forever changed. One month post-infusion, she was eating well, functioning without naps, and managing pain with ibuprofen, acetaminophen, and occasionally diazepam or cannabis gummies, without needing hydromorphone. She experienced intermittent jaw clicking and popping but had not re-locked, enjoying a varied diet. After 48 days, her jaw locked again but later unlocked, though she remained unable to eat normally due to pain and tenderness. She underwent another ketamine infusion with bupivacaine injections, restoring her new baseline activities. During a follow-up, she discussed her ongoing pain management and anxiety, recognizing the psychogenic component of her condition, and was referred to neuropsychiatry for therapy and coping mechanisms.



Discussion

This case highlights the off-label use of ketamine infusions in a patient with a rare case of CRPS manifesting in the jaw. As an N-methyl-D-aspartate (NMDA) receptor antagonist, ketamine disrupts pain pathways involved in central sensitization and hyperalgesia, key components of CRPS and chronic pain. By blocking these receptors, ketamine reduces pain signal transmission and significantly diminishes pain perception. Besides its analgesic effects, ketamine has anti-inflammatory properties. Its rapid onset makes it useful in acute pain management, and repeated infusions can lead to long-term pain relief. For those with chronic jaw pain and CRPS, ketamine infusions can provide substantial pain improvement and quality of life, offering a viable alternative when conventional treatments are ineffective.

References

