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Review Article

Alcohol and Sedative-Hypnotic Withdrawal Catatonia: Two Case Reports, Systematic Literature Review, and Suggestion of a Potential Relationship With Alcohol Withdrawal Delirium

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Background: *Withdrawal from alcohol and sedative-hypnotics can be complicated by seizures, hallucinations, or delirium. Withdrawal catatonia is another, less commonly discussed complication that clinicians should appreciate.* **Methods:** *We present a case of alcohol withdrawal catatonia and a case of benzodiazepine withdrawal catatonia and offer a systematic review of previous cases of alcohol or sedative-hypnotic withdrawal catatonia. We outline clinical features that suggest a potential link between withdrawal catatonia and withdrawal delirium.* **Results:** *We identified 26 cases of withdrawal catatonia in the literature—all principally with catatonic stupor—with an average age of 56 years (range: 27–92) and balanced prevalence between sexes. Withdrawal catatonia tends to occur only after chronic use of alcohol or sedative-hypnotic agents with a typical onset of 3–7 days after discontinuation and duration of 3–10 days. Withdrawal catatonia is responsive to benzodiazepines or electroconvulsive therapy. Features that suggest a parallel between withdrawal catatonia and withdrawal delirium include time course, neurobiologic convergence, efficacy of benzodiazepines and electroconvulsive therapy, typical absence of abnormal electroencephalographic findings, and phenotypic classification suggested by a recent literature in sleep medicine.*
Conclusion: *Alcohol and sedative-hypnotic withdrawal may present with catatonia or catatonic features. The clinical and neurobiologic convergence between withdrawal catatonia and withdrawal delirium deserves further attention. In view of these similarities, we propose that withdrawal delirium may represent excited catatonia: these new viewpoints may serve as a substrate for a better understanding of the delirium-catatonia spectrum.*
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Key words: catatonia, alcohol withdrawal delirium, delirium tremens, sedative-hypnotic withdrawal, benzodiazepine withdrawal, state dissociation.

INTRODUCTION

Many patients withdrawing from alcohol, benzodiazepines, and other sedative-hypnotics develop anxiety and agitation. Such withdrawal may be complicated by hallucinations, seizures, or delirium. Withdrawal delirium due to alcohol or sedative-hypnotics can be fatal without assertive treatment.[1] Withdrawal catatonia is a rarer syndrome and has received much less attention. Given that even the lowest estimates have identified an alcohol use disorder in more than 1 in 5 medical inpatients, this condition may be more

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common than currently appreciated. Here, we present 2 cases of catatonia due to withdrawal from alcohol or benzodiazepine. Next, we provide a systematic review of the literature for cases of withdrawal catatonia and summarize several lines of evidence suggesting a potential relationship between withdrawal delirium and withdrawal catatonia.

CASE REPORTS

Case 1

Mr. G, a 53-year-old white male with decades-long alcohol use disorder, recurrent alcohol detoxification including a history of alcohol withdrawal delirium, and a history of opioid and cocaine use disorders, was medically admitted for alcohol withdrawal and pancreatitis. Admission urine toxicology and breath alcohol content were negative, but he admitted to heavy daily alcohol intake. Medical records within the previous year documented a blood alcohol level of up to 414 mg/dL. He was treated for aspiration pneumonia with ciprofloxacin and metronidazole for 4 days and changed to ceftriaxone for the following 3 days. During the first 6 hospital days, Mr. G was alert and oriented. He was placed on symptom-triggered diazepam protocol and received totals of 40, 60, 30, 15, 15, and 5 mg on each of the first 6 days, respectively. Pain was treated with intravenous (IV) hydromorphone or oral oxycodone as needed. He received IV thiamine and oral folate.

On hospital day 6, he was alert, oriented, and attentive. On hospital night 6, he removed his IV and received 2 doses of 2 mg lorazepam for agitation. On hospital day 7, he developed near mutism (<20 words/5 minutes), staring, posturing for episodes up to 30 seconds with his hand held in suspended pose, and exhibited waxy flexibility. He had minimal oral intake for more than 24 hours. Bush-Francis Catatonia Rating Scale (BFCRS) score was 14. Routine hematology and chemistry labs, including ammonia levels, disclosed no metabolic change accounting for mental status change. He was afebrile with a pulse in the low 90s and blood pressure of 160s over 90s, and he did not display diaphoresis, tremulousness, or flushing. Respiratory rate was 18 with 95% oxygen saturation on oximetry. On hospital night 7, he was found disrobing and subsequently rummaging through drawers without explanation. When he spoke, he was often incoherent and disoriented to person, place, time, or situation. Upon reinstituting diazepam, initially scheduled as 10 mg every 6 hours and placed on 5-day taper, his mentation and physical catatonic features markedly improved within 24 hours.

Case 2

Mrs. C, a married 62-year-old white female with major depressive disorder in remission, unspecified anxiety disorder on clonazepam 1 mg at bedtime for 2 years, minor neurocognitive disorder, fibromyalgia, and history of gastric bypass surgery, was admitted from short-term rehabilitation to medicine for altered mental status. She had been admitted to an outside hospital for 8 days for lower extremity edema where clonazepam 1 mg at bedtime and scheduled fentanyl were discontinued. She was discharged to short-term rehabilitation without clonazepam or fentanyl and later that day she developed immobility, the inability to speak spontaneously, negativism (would not respond to questions or follow commands), echolalia, and verbigeration (repeating the phrase "help me" in a stereotypic fashion). These symptoms persisted for 48 hours at short-term rehabilitation until she was admitted to our hospital. Psychiatric evaluation revealed these same symptoms as well as limited oral intake and grimacing; BFCRS score was 15. Evidence of autonomic activity, tremulousness, or diaphoresis was absent, temperature was 98.1°F, pulse was 87 beats/min, and respiratory rate was 14 breaths/min. Clonazepam was restarted that evening and within hours of receiving the first dose her husband reported that she "woke up" and was "back to normal." Once able to speak, she reported that she had been frightened during the experience. She was continued on scheduled clonazepam without recrudescence of symptoms.

MATERIAL AND METHODS

On July 24, 2015, we conducted a systematic review of EMBASE, MEDLINE, and PsycINFO cross-referencing the terms "catatoni*" and "withdraw*" with each of the sets of terms below. Total number of unique results limited to humans is provided in parentheses: "alcohol, ethanol" (42), "zolpidem, zopiclone, eszopiclone, zaleplon" (18), "benzodiazepine*, alprazolam, clonazepam, clorazepate, chlordiazepoxide,