Assault of the Senses: Perceptual Distortions Associated with Protracted Benzodiazepine Withdrawal Syndrome

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Introduction

Background/Project Rationale

Benzodiazepines (BZDs) have become one of the most used and misused drug classes due to their wide range of action and low toxicity profile. As per the National Survey on Drug Use and Health, 12.6% of U.S. adults (30.6 million adults) report past-year BZD use, with misuse accounting for 17.2% of overall use. Although BZDs are highly effective as short-term treatments for certain disorders, they also are potentially addictive agents. Providers must be aware of withdrawal symptoms beyond rebound anxiety and seizure precipitation. This case report demonstrates the development of tactile hyperesthesia and dysgeusia, lesser known but documented complications of BZD withdrawal, while showcasing a successful individualized dose taper in a geriatric patient.

Non-Specific Symptoms	Frequency %
Insomnia	71%
Anxiety	56%
Mood Swings	49%
Myalgia / Twitching	49%
Headache , Tremor	38%
N/V , Anorexia	36%
Sweating, Blurred Vision	22%

Hypersensitivity	Frequency %
Noise	38%
Light	24%
Smell / Touch	15% / 7%
Smell / Taste	15% / 4%

Complications	
Psychosis	7%
Seizures	4%

Qualitative Changes	
Movement	24%
Vision, Taste	13%
Derealization	24%

Case Presentation

A 69-year-old female with past medical history of gastric ulcer, osteoarthritis, generalized anxiety disorder, and major depressive disorder presented to the primary care clinic for BZD use disorder. Her current dose of Alprazolam had been slowly increased throughout the 18-year duration from 0.5 mg to 2 mg daily, with no other psychotropic medications for concurrent anxiety and depression. The patient had unsuccessful discontinuation attempts due to a strong desire to control her panic attacks with Alprazolam and previous withdrawal symptoms of dizziness, palpitations, and mood disturbances. She reported diminishing ability to take care of obligations at home.

Vitals were unremarkable. Despite the mental status exam demonstrating a normal mood and affect, composite measures of depression and anxiety include Patient Health Questionnaire-9: 11 and General Anxiety Disorder-7: 11. Her physical examination was unremarkable. The most recent labs (complete blood count, lipid panel, comprehensive metabolic panel) had been completed a few months prior and were within normal limits except for slight elevations in the total cholesterol, triglycerides, and low-density lipoproteins. As per DSM-V, the patient met the criteria for severe BZD use disorder.

Data

Outcome/Results

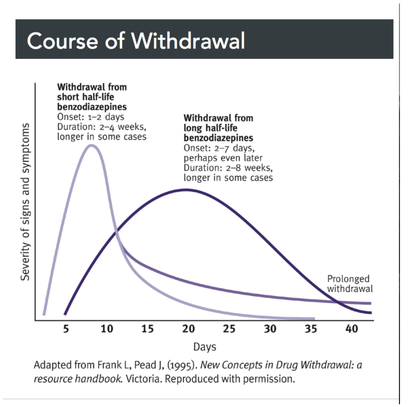
Considering the potential risks associated with long-term BZD use, a slow taper was initiated with a longer-acting equivalent. The patient was started on the equivalent dose of Chlordiazepoxide 100 mg per day with an add on trial of Paroxetine.

Weeks	Total Daily Librium	Withdrawal Symptoms	Intervention / Ancillary Measures	PHQ-9 / GAD-7 Scoring
Week 1	100 mg	N/A	Switched Xanax to Librium Started Paxil 10 mg PO Q day	11/11
2-3	75 mg	Tactile hyperesthesia, dysgeusia, facial twitching, and anxiety	Tolerating Paxil 100 mg Add Gabapentin 300 mg OP Q AM	5/3
4-5	75 mg	Ongoing but improving altered taste sensation, tongue numbness, and twitching	Gabapentin 300 mg Continue Librium 75 mg	5/3
6-8	60 mg	Sensory abnormalities Ongoing vivid dreams, nightmares and fatigue	Add Prazosin 1 mg Increase dosage in Paxil	5/3
9-11	60 mg	Improving sensory abnormalities; vertigo	Continue Paxil Decrease Gabapentin to 100 mg	5/3
12-15	50 mg	Improvement of eye twitching; improvement of vertigo	Continue Librium 50 mg Continue Paxil	5/3
16-19	40 mg	Improvement of facial twitching and dysgeusia	Librium 40 mg Continue Paxil / Discontinue Prazosin	1/2
20-23	30 mg	No complaints of facial twitching, dysgeusia or hyperesthesia	Librium 30 mg Continue Paxil Discontinue Gabapentin	1/2
24-43	25 mg	None	Librium 25 mg / Continue Paxil	1/2
44-51	20 mg	None	Librium 20 mg / Continue Paxil	1/2
52-63	15 mg	Mild anxiety Underwent cholecystectomy	Librium 15 mg/ Continue Paxil Hydroxyzine 25 mg PO TID PRN anxiety	1/2
64-79	5 mg	None	Librium 5 mg / Continue Paxil Restart Gabapentin 300 mg	4/0
80-87	5 mg	None	Librium 5 mg every 3 days Continue Paxil	5/0
88-90	5 mg	Recurrence of intermittent dysgeusia	Librium 5 mg every 4 days Continue Paxil Decrease Gabapentin to 100 mg	5/0
91	0 mg	None	Increased Gabapentin to 200 mg Hydroxyzine 25 mg PO PRN anxiety	5/0

Conclusion

Proposed Impact on Clinical Practice

Physiological dependence on BZDs is accompanied by a withdrawal syndrome commonly characterized by sleep disturbances, irritability, increased anxiety, and panic attacks. Perceptual distortion and dysgeusia are infrequently reported as symptoms of BZD withdrawal. The pathogenesis of these distortions is poorly understood but may be indirectly related to the sudden decrease in γ-aminobutyric acid (GABA) signaling during benzodiazepine withdrawal. Upon review of the available literature, there was a rarity in cases describing perceptual distortions upon discontinuation or tapering of a BZD. Primary care providers must be attentive to development of rare withdrawal symptoms and accordingly modify their treatment plan to most effectively treat patients.



Adapted from Frank L, Pead J, (1995). *New Concepts in Drug Withdrawal: a resource handbook.* Victoria. Reproduced with permission.

There are three basic approaches to a benzodiazepine taper: (1) Utilize the same medication for tapering; (2) Switch to a longer-acting equivalent; (3) Utilize adjunctive medications to help mitigate potential withdrawal symptoms. There remains insufficient evidence to support the use of a particular BZD for tapering in geriatric adults. This patient was switched to a long-acting BZD, Chlordiazepoxide with a gradual decrease of the dose. As no clear evidence suggests the optimum rate of tapering, it is essential to individualize schedules. This patient's schedule was consequently individualized, with a 25% dose reduction in 2 weeks followed by reductions of 5-10% as tolerated. Gabapentin, Paroxetine, Hydroxyzine, and Prazosin were used as adjunctive agents to mitigate discomfort. As this protocol was successful, further studies with a larger number of patients are needed to confirm the applicability, efficacy, and safety of adjuncts.

Conclusion

Discontinuation of long-term BZD use in older adults is feasible. Family medicine physicians must be cognizant of the rare adverse effects of BZD withdrawal. Current reports do not provide enough evidence to make specific recommendations regarding the prevention of BZD withdrawal–induced perceptual distortions or dysgeusia. Taper protocols for complicated withdrawal phenomena require further research.

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