

A compounded, nonbenzodiazepine option for treating acute anxiety

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Treating short-term or situational anxiety or anxiety attacks with benzodiazepines carries the risk of withdrawal and dependence. Other options include various antidepressants and buspirone. Although such medications decrease overall anxiety and can prevent anxiety from building, they are not effective for breakthrough anxiety. Other mainstays are antihistamines, antipsychotics, or newer antiepileptics such as gabapentin and pregabalin, but none of these have strong clinical literature support regarding their effectiveness for treating anxiety disorders.

PanX compounded medications are dual drug combinations of a beta blocker plus an antiemetic antimuscarinic agent.¹ They are designed and patented for as-needed treatment of anxiety disorders without using any controlled substances. Compounded medications are not FDA-approved, but are commercially available and subject to Section 503A of the Federal Food, Drug, and Cosmetics Act of 2013.²

In PanX medications, the beta blocker is intended to address the sympathetic cardiovascular symptoms of anxiety. Beta adrenergic receptor antagonists have been prescribed off-label for decades to treat social anxiety disorder, including performance anxiety. At least 7 beta blockers—atenolol, propranolol, pindolol, timolol, nadolol, betaxolol, and oxprenolol—have been reported to have anxiolytic effects, although these are limited to cardiovascular symptoms of anxiety.¹

However, there is a need to augment the limited effects of the beta blocker with another agent, such as an antimuscarinic agent, which is intended for parasympa-

thetic noncardiovascular and CNS symptoms of anxiety. Scopolamine is a preferred antimuscarinic because it has been known for over a century to exhibit anxiolytic effects.³ Scopolamine's mechanism of action is antagonism of acetylcholine binding to the M1 and/or M2 muscarinic receptors.⁴

We present a case of a patient who needed a nonbenzodiazepine treatment for acute anxiety. She received a compounded PanX combination of the beta-1 selective beta blocker atenolol, 25 mg, plus scopolamine hydrobromide, 0.2 mg, as needed for acute anxiety.

CASE REPORT

Acute anxiety, benzodiazepine abuse

Ms. L, age 30, with a family history of depression and anxiety, has had anxiety, depression, and posttraumatic stress disorder since she was in her mid-20s. She is evaluated in a 30-day rehabilitation program for alprazolam abuse. She is detoxed from alprazolam and stabilized with lurasidone, 60 mg once in the morning, gabapentin, 1,200 mg 4 times a day, and quetiapine, 125 mg as needed for sleep.

Ms. L improves significantly and is transferred to an intensive outpatient program.

continued

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Disclosures

Dr. Benjamin is a consultant to TPD LLC, and Dr. Dooley is an employee and shareholder of TPD LLC, the owner of the PanX intellectual property.

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This case provides some preliminary evidence of a rapid anxiolytic effect of a beta blocker plus scopolamine

While there, she experiences increased periods of anxiety related to ruminative thoughts about relationship, occupational, and living stressors. She requests a medication for breakthrough anxiety and recognizes that, because of her history, a benzodiazepine is not medically indicated.

Ms. L signs a consent to a physician-sponsored trial of a PanX medication consisting of orally disintegrating tablets of atenolol, 25 mg, plus scopolamine hydrobromide, 0.2 mg, (in a polyglycol troche base plus mannitol, silica gel, and Steviol glycosides), which is prepared by a compounding pharmacy. Over 6 days, she takes the PanX combination 3 times. Immediately before she takes the medication, her symptoms are intense anxiety, nervousness, and agitation; feelings of panic; increased heart rate and palpitations; and shortness of breath. Ms. L says these symptoms developed approximately 20 minutes before she took the PanX combination. Approximately 30 minutes after taking the medication, she describes having a complete resolution of these symptoms that lasted for 4 hours. She says the medication “calmed [her] down” and had a “Klonopin or benzo-like effect.” She notes that her heart rate slowed quickly, followed by her breathing, and that she also was “more focused.” No information regarding her heart rate or blood pressure when she experienced the symptoms or after treatment is available. She denies experiencing dry mouth, dizziness, fatigue, sleepiness, blurred vision, or confusion.

Targets for future research

This case provides some preliminary clinical evidence of a rapid anxiolytic effect from

a novel medication—a beta blocker plus scopolamine combination—that was beneficial in a situation where it may be likely that a benzodiazepine would have been utilized. This is our first case report documenting a trial of any PanX combination (ie, a combination of any beta blocker with any antimuscarinic agent) regarding anxiolytic efficacy and timing, tolerability, and adverse effects. With recognition that this is a report of 1 patient who took the medication 3 times, there is much that is not known.

Additional clinical studies are needed to evaluate the efficacy, tolerability, and adverse effects associated with using a beta blocker/antiemetic antimuscarinic combination to treat acute anxiety. Medication interactions also need to be considered. Whether this combination medication would be best for treating breakthrough anxiety or other acute anxiety episodes, and/or used as a regularly dosed medication is unknown. With documented risks of long-term benzodiazepine use, other novel therapeutics, such as the atenolol/scopolamine combination, may be welcome in treating acute anxiety.

References

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