



Method for Reducing Anxiety and Nightmares Among Individuals with Psychiatric Disorders (VA Ref. No. 08-077)

Novel method of using tizanidine for treatment of psychiatric disorders, such as sleep disorders or anxiety disorders

Technology

Method of using tizanidine for reduction of anxiety and nightmares in psychiatric disorders

Inventor

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Key Features

- Demonstrated to reduce nightmares and anxiety in PTSD patients
- Alpha-2 agonist which decreases adrenergic activity
- High therapeutic safety profile
- Generic, FDA-approved product
- Could be used independently or in conjunction with other therapies

Keywords

Post-traumatic stress disorder, PTSD, anxiety, psychiatric disorder, nightmare, sleep disorder, tizanidine, alpha-2 agonist

Stage of Development

Reduced to practice with successful demonstration in clinical studies

Status

Seeking development, commercialization, and/or licensing partner

Patent Status

US Pat. Pub. No. [2010/0298305](#)

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Technology

The Department of Veterans Affairs (VA) has developed a method of using the generically available drug, tizanidine, for reducing nightmares in veterans suffering from post-traumatic stress disorder (PTSD). In addition, the method could be potentially be used for the treatment of psychiatric disorders and major depressive disorders such as sleep disorder, anxiety disorder, mood disorder or a perpetual disturbance.

Competitive Advantage

The VA has discovered that tizanidine, an alpha-2 agonist that is preferentially active in the central nervous system, can be used for treatment of symptoms associated with PTSD. The alpha-2 agonist works by blocking neurons from releasing neurotransmitters, which decrease adrenergic activity. Tizanidine at therapeutic levels was demonstrated to substantially reduce nightmares in veterans with PTSD without undesirable side effects. The reduction in nightmares by tizanidine is comparable to that reported by veterans taking other therapeutic products.

Conventional therapy such as prazosin, an alpha-1 adrenergic receptor antagonist, is generally effective in reducing nightmares associated with PTSD. However, prazosin is not typically tolerated well in patients that do not have hypertension as it can result in orthostasis.

Unlike existing treatment methodologies, the present invention:

- **Has a minimal effect on lowering blood pressure**
- **Could potentially reduce nightmares in patients with PTSD without undesirable side effects**
- **Could also result in an overall improvement in anxiety associated with PTSD**

Opportunity

Seventy percent of adults in the United States have experienced some type of traumatic event in their lifetime and up to twenty percent of them (over 31 million people) have struggled with or are currently struggling with PTSD. PTSD is most notable in combat veterans with a lifetime prevalence rate of ten to thirty percent in these individuals. Of the soldiers deployed in the last six years, over twenty percent, or over 300,000 of them have PTSD. PTSD is a significant economic burden with researchers estimating that PTSD and depression among returning service members will cost the nation as much as \$6.2 billion in the two years following deployment, including both direct medical care and costs for lost productivity and suicide

Status

The Department of Veterans Affairs is looking for a partner for further development and commercialization of this technology through a license and the VA inventors are available to collaborate with interested companies through a Cooperative Research and Development Agreement (CRADA).