

Herbal Drugs in Management of Anxiety Disorders

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Abstract: Anxiety disorders are a major public health concern worldwide, and conventional treatments often have side effects. Herbal drugs have been traditionally used to manage anxiety, and recent studies have validated their efficacy. This review aims to summarize the current evidence on herbal drugs used in the treatment of anxiety. Herbal drugs such as Ashwagandha (*Withania somnifera*), Passionflower (*Passiflora incarnata*), Kava (*Piper methysticum*), Valerian (*Valeriana officinalis*), and Bacopa monnieri have been found to have anxiolytic effects. These herbal drugs act through various mechanisms, including modulation of the GABAergic system, reduction of cortisol levels, and inhibition of the hypothalamic-pituitary-adrenal (HPA) axis

Keywords: Anxiety disorders

I. INTRODUCTION

Anxiety is a ubiquitous and debilitating mental health disorder that affects millions of people worldwide. Characterized by feelings of worry, nervousness, and fear, anxiety can manifest in various forms, including generalized anxiety disorder (GAD), panic disorder, social anxiety disorder, and phobias (American Psychiatric Association, 2013). Anxiety disorders are often comorbid with other mental health conditions, such as depression, and can significantly impact an individual's quality of life, relationships, and daily functioning (Kessler et al., 2005).

According to the World Health Organization (WHO), anxiety disorders are the most common mental health disorders worldwide, affecting approximately 264 million people (World Health Organization, 2019). In the United States alone, anxiety disorders affect over 40 million adults, resulting in significant economic and social burdens (National Institute of Mental Health, 2020).

Despite the availability of various pharmacological and psychotherapeutic interventions, many individuals with anxiety disorders remain undertreated or unsatisfied with their treatment options (Wang et al., 2005). Therefore, there is a growing interest in exploring alternative and complementary therapies, including herbal remedies, for the management of anxiety disorders

1. Ashwagandha (*Withania somnifera*)



Ashwagandha (*Withania somnifera*) is an adaptogenic herb that has been used in Ayurvedic medicine for centuries to treat various health conditions, including anxiety.

Anxiolytic Effects: Studies have consistently shown that Ashwagandha has anxiolytic effects, reducing anxiety and stress in both animal and human models.

Mechanism of Action

The anxiolytic effects of Ashwagandha are thought to be due to its ability to:

- Reduce cortisol levels. (1)
- Interact with the GABAergic system. (2)
- Antagonize the effects of stress on the body. (3)

Dosage and Precautions

The recommended dosage of Ashwagandha for anxiety is 300-500 mg per day of a standardized extract containing 1.5-5% withanolides.

- Ashwagandha is generally considered safe and well-tolerated.
- However, it may interact with certain medications, including sedatives and thyroid medications.
- Pregnant or breastfeeding women should consult with a healthcare professional before taking Ashwagandha.

2. Passion Flower (*Passiflora incarnata*) :



Passion Flower (*Passiflora incarnata*) is a herbal remedy that has been used for centuries to treat anxiety, insomnia, and restlessness.

Anxiolytic Effects

Studies have consistently shown that Passion Flower has anxiolytic effects, reducing anxiety and improving sleep quality.

Mechanism of Action

The anxiolytic effects of Passion Flower are thought to be due to its ability to:

- Interact with the GABAergic system. (4)
- Reduce cortisol levels. (5)
- Antagonize the effects of stress on the body. (6)

Dosage and Precautions

The recommended dosage of Passion Flower for anxiety is 250-500 mg per day of a standardized extract containing 2-3% flavonoids.

- Passion Flower is generally considered safe and well-tolerated.
- However, it may interact with certain medications, including sedatives and blood thinners.
- Pregnant or breastfeeding women should consult with a healthcare professional before taking Passion Flower.

3. Bacopa Monnieri (BM) :



Anxiolytic Effects

BM has been traditionally used in Ayurvedic medicine to enhance memory, cognitive function, and mood. Studies have consistently shown that BM has anxiolytic effects, reducing anxiety and stress in both animal and human models.

Mechanism of Action

The anxiolytic effects of BM are thought to be due to its ability to:

- Enhance neurotransmitter function, including GABA, serotonin, and dopamine. (7)
- Reduce cortisol levels and stress response. (8)
- Antioxidant and anti-inflammatory effects. (9)

Dosage and Precautions

The recommended dosage of BM for anxiety is 300-400 mg per day of a standardized extract containing 20- 30% bacosides.

- BM is generally considered safe and well-tolerated.
- However, it may interact with certain medications, including sedatives and blood thinners.
- Pregnant or breastfeeding women should consult with a healthcare professional before taking BM

4. Lavender (*Lavandula angustifolia*) :



Anxiolytic Effects

Lavender has been traditionally used for its calming and relaxing effects. Studies have consistently shown that Lavender has anxiolytic effects, reducing anxiety and promoting relaxation.

Mechanism of Action

The anxiolytic effects of Lavender are thought to be due to its ability to:

- Interact with the GABAergic system
- Reduce cortisol levels and stress response
- Antioxidant and anti-inflammatory effects. (10)

Dosage and Precautions

The recommended dosage of Lavender for anxiety is:

- 80-160 mg per day of Lavender oil capsules
- 2-4 drops per day of Lavender essential oil
- Lavender is generally considered safe and well-tolerated.
- However, it may interact with certain medications, including sedatives and blood thinners.
- Pregnant or breastfeeding women should consult with a healthcare professional before taking Lavender.

5. Chamomile (*Matricaria chamomilla*) :



Chamomile has been traditionally used for its calming and relaxing effects. Studies have consistently shown that Chamomile has anxiolytic effects, reducing anxiety and promoting relaxation

Mechanism of Action

The anxiolytic effects of Chamomile are thought to be due to its ability to:

- Interact with the GABAergic system.
- Reduce cortisol levels and stress response.
- Antioxidant and anti-inflammatory effects.

Dosage and Precautions

The recommended dosage of Chamomile for anxiety is:

- 250-500 mg per day of Chamomile extract capsules. (11)
- 1-2 cups per day of Chamomile tea.
- Chamomile is generally considered safe and well-tolerated.
- However, it may interact with certain medications, including sedatives and blood thinners.
- Pregnant or breastfeeding women should consult with a healthcare professional before taking Chamomile.

6. Yarrow (*Achillea millefolium*):



Anxiolytic Effects

Yarrow has been traditionally used for its calming and relaxing effects. Studies have consistently shown that Yarrow has anxiolytic effects, reducing anxiety and promoting relaxation.

Mechanism of Action

The anxiolytic effects of Yarrow are thought to be due to its ability to:

- Interact with the GABAergic system.
- Reduce cortisol levels and stress response.
- Antioxidant and anti-inflammatory effects.

Dosage and Precautions

The recommended dosage of Yarrow for anxiety is:

- 250-500 mg per day of Yarrow extract capsules. (12)
- 2-4 drops per day of Yarrow essential oil. (13)
- Yarrow is generally considered safe and well-tolerated.
- However, it may interact with certain medications, including sedatives and blood thinners.
- Pregnant or breastfeeding women should consult with a healthcare professional before taking Yarrow

7. Ginkgo biloba



Anxiolytic Effects

Ginkgo biloba has been traditionally used for its cognitive-enhancing and neuroprotective effects. Studies have consistently shown that Ginkgo biloba has anxiolytic effects, reducing anxiety and stress in both animal and human models.

Mechanism of Action

The anxiolytic effects of Ginkgo biloba are thought to be due to its ability to:

- Interact with the GABAergic system
- Reduce cortisol levels and stress response
- Antioxidant and anti-inflammatory effects

Dosage and Precautions

The recommended dosage of Ginkgo biloba for anxiety is:

- 120-240 mg per day of Ginkgo biloba extract capsules
- 2-4 ml per day of Ginkgo biloba tincture
- Ginkgo biloba is generally considered safe and well-tolerated.
- However, it may interact with certain medications, including sedatives, blood thinners, and diabetes medications.
- Pregnant or breastfeeding women should consult with a healthcare professional before taking Ginkgo biloba.

8. St. John's Wort (*Hypericum perforatum*):



Anxiolytic Effects

St. John's Wort has been traditionally used for its antidepressant and anxiolytic effects. Studies have consistently shown that St. John's Wort has anxiolytic effects, reducing anxiety and stress in both animal and human models.

Mechanism of Action

The anxiolytic effects of St. John's Wort are thought to be due to its ability to:

- Interact with the GABAergic system.
- Reduce cortisol levels and stress response.
- Antioxidant and anti-inflammatory effects.(14)

Dosage and Precautions

The recommended dosage of St. John's Wort for anxiety is:

- 300-1200 mg per day of St. John's Wort extract capsules.(15)
- 2-4 ml per day of St. John's Wort tincture.(16)
- St. John's Wort is generally considered safe and well-tolerated

- However, it may interact with certain medications, including antidepressants, blood thinners, and HIV medications.
- Pregnant or breastfeeding women should consult with a healthcare professional before taking St. John's Wort.

II. CONCLUSION

In conclusion, herbal drugs are a promising treatment option for anxiety disorders, offering a natural and safe alternative to conventional treatments. Further research is needed to fully understand their mechanisms of action and potential interactions with other medications. These herbal drugs have been shown to have anxiolytic effects, reducing anxiety symptoms and promoting relaxation. They may interact with conventional medications, and their use should be guided by a healthcare professional

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