

# Ginkgo biloba as an alternative medicine in the treatment of anxiety in dementia and other psychiatric disorders

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**Background:** Mental disorders are the most common health problems in the worldwide population. Current medicines against these conditions have undesired side effects or limited effectiveness. These disadvantageous pharmacological and therapeutic characteristics provoke a low adherence to treatment in an important percentage of patients with mental disorders. Since ancient times, ethnically different groups have been using plants extracts as medicines for the treatment of mental conditions including dementia, depression and anxiety disorders. Among them are extracts of Ginkgo biloba, a tree in the division Gingophyta, that has been used by millions of people worldwide.

**Objective:** This review aims to discuss current scientific evidence of efficacy, neuroprotective and antioxidant effects as mechanism of action, side effects and potential interaction with other commonly prescribed anxiolytic drugs.

**Methods:** A PubMed search of preclinical studies as well as individual clinical trials and meta-analysis were scrutinized.

**Results:** Various preclinical and clinical studies have shown a positive effect of Ginkgo biloba to improve cognitive abilities in impaired individuals and reducing anxiety under pathological conditions.

**Conclusion:** A more advanced clinical research is needed to confirm the efficacy of Ginkgo biloba for the treatment of anxiety in different health conditions. © 2017 Bentham Science Publishers.

Alzheimer

Anxiety

Medicinal plants

Neurodegeneration

Neuroinflammation

Oxidative stress

aripiprazole

benzodiazepine derivative

buspirone

Ginkgo biloba extract

quetiapine

risperidone

anxiolytic agent

Ginkgo biloba extract

plant extract

alternative medicine

Alzheimer disease

antioxidant activity

attention deficit disorder

brain hemorrhage

brain ischemia

cognition

cognitive behavioral therapy

cognitive defect

delusion

dementia

depression

dizziness

drug efficacy

drug safety

gastrointestinal symptom

generalized anxiety disorder

Ginkgo biloba

headache

human

intraocular hemorrhage

mental disease

mental health

meta analysis (topic)

multiple sclerosis

nervous system inflammation

neuroprotection

neurotransmission

pleiotropy

prevalence

randomized controlled trial (topic)

Review

schizophrenia

skin allergy

skin irritation

systematic review (topic)

animal

dementia

mental disease

phytotherapy

Animals

Anti-Anxiety Agents

Dementia

Humans

Mental Disorders

Phytotherapy

Plant Extracts