

Herbal Medicine in the Treatment of Schizophrenia: A Review

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Abstract

As a chronic psychiatric disorder, schizophrenia affects the worldwide population with a lifetime prevalence of 1% and considerable long-term mortality, morbidity, and burden. Besides the adverse effects of routine treatment regimens, a significant portion of patients remain symptomatic despite treatment, especially those with negative symptoms which are the major disabling factors in these patients. There is an emerging role for herbal medicine in the treatment of schizophrenia. In this review we focus on some herbal medicines that have been reported to have some effects on schizophrenia.

Keywords: Herbal Medicine, Psychosis, Schizophrenia



Introduction

Schizophrenia is a devastating neurobiologic disorder that typically strikes the brain function of adolescents and young adults, occurring in about 1 of every 100 people worldwide [1]. The direct costs of schizophrenia accounted for 2.5% of US health expenditures. Despite these expenditures, up to half of all people with schizophrenia at any point in time are not receiving active psychiatric care, and at least 15% to 20% of people suffering from the disorder will never receive any psychiatric treatment. Moreover, although the financial costs of schizophrenia can be calculated, the cost of unrealized human potential and lost dignity associated with the disease are beyond computation. For all of these reasons, advances in the treatment of schizophrenia have been and continue to be urgently needed [2, 3].

Etiology of schizophrenia

It is unclear whether schizophrenia is an old or modern illness. Ancient records (first century) describe a type of insanity in persons labeled either “gifted” or “cursed” depending on religious criteria, and early treatment often involved care by the family or church, but some early hypotheses considered the possibility that brain damage or malformation could account for these behaviors. Some authorities argue that no descriptions of true schizophrenia were published until more modern times. The term schizophrenia (splitting of the mind) was introduced in 1911 and is meant to convey a splitting of usually integrated psychic functions [1-3]. The onset

of symptoms differentiable from non-affected twins tends to cluster around certain ages (0–5 and 13–17 y), with a predominance of boys in the younger range and equal number of males and females in the older age group [1-4]. There is no clear difference in occurrence of schizophrenia among different cultures. Some computed tomography and magnetic resonance imaging studies suggest possible increased cerebral ventricular size, decreased brain mass, or decreased left temporal lobe size in certain subsets of schizophrenics, and some neurodevelopment models implicate possible abnormal brain circuit maturation during the second trimester of gestation. Environmental factors such as viruses, pollution, trauma, dietary deficiencies, toxins, infections, or insecticides have been invoked as causative. Most experts believe that schizophrenia results from a complicated interplay of environmental, biologic, psychological, cultural, and genetic factors [1-4].

Pharmacotherapy of schizophrenia

The 1990s could justifiably be seen as the decade of psychopharmacology. Since 1990, five new antipsychotics have been approved for use in the USA: risperidone, olanzapine, sertindole (subsequently withdrawn), quetiapine and ziprasidone. These antipsychotics, along with the prototypical drug clozapine, are all considered atypical [4-6]. Schizophrenia is clinically heterogeneous and is believed to be the common syndrome resulting from a number of different etiopathogenic processes. The advent of the novel antipsychotics during the last 15 years represents a significant improvement over the



effectiveness of conventional antipsychotics. However, these agents are not a magic bullet and are associated with their own attendant treatment complications. For all of these reasons, advances in the treatment of schizophrenia have been and continue to be urgently needed [6-9].

Negative symptoms of schizophrenia, with about 23% to 26% prevalence, are the most challenging aspects of this disease with high burden in regard to inconsistent effectiveness of the current antipsychotic drugs. Several underlying mechanisms are postulated to be responsible for the negative symptoms. However, there is no common approved medication for treatment of either the negative symptoms or cognitive dysfunction in schizophrenia. There is an emerging role for herbal medicine in different neuropsychiatric disorders including schizophrenia [6-9].

The use of herbal medicine in a modern medicine context, has been evaluated in six trials, although again these are limited by their sample size and study length. The results of these six trials suggest that using herbal medicine as monotherapy for psychiatric disorders may not be effective, but if used adjuvant therapy with first or second generation of antipsychotic drugs, they may be useful [10, 11].

Ginkgo biloba

Ginkgo biloba is getting a lot of attention within scientific communities for its therapeutic potential to treat schizophrenia. *G. biloba* is believed to make the effects of antipsychotic drugs work better while buffering the damage caused by these drugs to neurons. The typical dosage of a standardized

extract of *G. biloba* is 360 mg which is taken daily in split doses for up to four months [10-13].

Panax ginseng

Panax ginseng is believed to improve memory, critical thinking, and concentration. According to a 2008 Canadian research study, *P. ginseng* also helps reduce some of the behavioral traits associated with schizophrenia, including the inability to show emotions. *P. ginseng* can be taken daily as a 200 mg supplement under a doctor's supervision. *P. ginseng* is just one of many forms of ginseng and should not be confused with Siberian *ginseng* [10-13].

Hypericum perforatum

It should first be noted that *Hypericum perforatum* can have certain interactions with newer antipsychotic drugs within the clozapine family. Talk to your medical professional for guidance on how best to handle a scenario similar to this before attempting to take the herb [10-13].

Elettaria cardamomum

The seeds of *Elettaria cardamomum* may also be utilized to control the many signs of Schizophrenia. *E. cardamomum* seeds have healing properties that are quite great for the nervous system. The easiest method to use *E. cardamomum* seeds is to produce an herbal tea. Drink this tea twice per day to help with Schizophrenia symptoms [10-13].

Glycyrrhiza glabra

Glycyrrhiza glabra has compounds and

minerals which may assist in managing and controlling the brain's healthy state of being. This herb is quite successful in controlling anxiety and tension. The curative properties of *G. glabra* could be successfully utilized in treating schizophrenia. For this solution, the best results are had by consuming it on a bare stomach in the morning. It's desirable to have breakfast after one hour so that the herb gets correctly digested and properly enters the bloodstream [10-13].

Ocimum basilicum

Ocimum basilicum leaves have antioxidant properties which could be utilized for helping with various brain disorders, including schizophrenia. Regularly drinking tea prepared with *O. basilicum* leaves can boost brain functionality and consequently assist in controlling the symptoms associated with schizophrenia. Attempt to drink this herb tea twice daily for optimal results [10-13].

Phyllanthus emblica

Phyllanthus emblica is a sort of natural antioxidant. Additionally, it boosts the immune system, giving a much-needed boost to your body to fight against psychological disorders like schizophrenia. One way of consuming the herb would be to bring the dried leaves of *P. emblica* and grind them all to create a smooth powder. Take one teaspoonful of the powder with hot water two times each day [10-13].

Matricaria chamomilla

Matricaria chamomilla has compounds and crucial minerals along with relaxing and soothing properties which help a great deal in issues of the brain and nervous system. *M. chamomilla* may be utilized as a mood enhancer, or to encourage restful sleep for those suffering from schizophrenia. Take one teaspoonful of *M. chamomilla* in one cup of boiling water and enjoy it as a calming tea [10-13].

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