

Review of Phytotherapy and other natural substances in alcohol abuse and alcoholism

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Background

Alcoholism and alcohol abuse represent a worldwide problem, associated with considerable morbidity and mortality. A number of medicinal plants are reported to have preventive and therapeutic effects on alcoholism and alcohol abuse. The present review summarizes the most common natural substances used in alcohol use disorders.

Methods

All relevant literature databases were searched up to March 2015. The search terms were 'alcohol abuse', 'alcoholism', 'herbal medicine', 'natural products', 'phytotherapy'. Human, animal studies and reviews were included.

Results

Recently, some plants drew the attention of researchers, namely, danshen (*Salvia miltiorrhiza* Bge.), ginseng (*Panax ginseng* C.A. Mey.), ibogaine (*Tabernanthe iboga* Baill.), kudzu [*Pueraria lobata* (Willd.) Ohwi], and St. John's wort (*Hypericum perforatum* L.). Reduction of alcohol absorption appears to be a common feature among most of the cited plants. A standardized formulation of kudzu produced minimal side effects, and resulted in a modest reduction in alcohol consumption in young non-treatment-seeking heavy drinkers. *Hypericum* extract also reduced voluntary alcohol intake to a significant degree in rat models. Danshen has no efficacy data, but can reduce alcohol intake in animal models. Other plants like *Banisteriopsis caapi* (Spruce ex Griseb.) Morton, *Lophophora williamsii* (Lem. ex Salm-Dyck) J.M. Coult., and *Thymus vulgaris* L. are also suggested to have beneficial effects in alcohol use disorders. Carnosine, a natural dipeptide, seems to be a promising compound for the therapy of alcoholism.

Conclusions

Data suggest that some plants and other natural substances may constitute novel and effective approaches for treatment of alcohol use disorders.

Keywords Alcohol abuse, alcoholism, herbal medicine, medicinal plants, natural products, phytomedicine