Phytomedicine. 2016 Feb 24. pii: S0944-7113(16)00051-9. doi: 10.1016/j.phymed.2016.02.009. [Epub ahead of print]

Rhodiola rosea L. as a putative botanical antidepressant.

Amsterdam JD[1], Panossian AG[2].

Author information

Abstract

BACKGROUND: Rhodiola rosea (R. rosea) is a botanical adaptogen with putative anti-stress and antidepressant properties. Evidence-based data supporting the effectiveness of R. rosea for depression in adults is limited, and therefore a comprehensive review of available animal and human studies suggesting a putative antidepressant action is warranted.

PURPOSE: A review of the literature was undertaken to ascertain studies of possible antidepressant mechanisms of action and studies of the safety and effectiveness of R. rosea extracts in animals and adult humans.

METHODS: A search of MEDLINE and the Russian state library database was conducted (up to October 2015) on R. rosea.

RESULTS: Mechanism of action: R. rosea extracts and its purified constituent, salidroside, has been shown to produce a variety of mediator interactions with several molecular networks of neuroendocrine-immune and neurotransmitter receptor systems likely to be involved in the pathophysiology of depression. A wide variety of preclinical in vivo and ex vivo studies with laboratory animals suggests the presence of several biochemical and pharmacological antidepressant-like actions.

EFFECTIVENESS: Clinical assessment of R. rosea L. rhizome extracts in humans with various depressive syndromes is based upon results from two randomized, double-blind, placebo-controlled trials of 146 subjects with major depressive disorder and seven open-label studies totaling 714 individuals with stress-induced mild depression (diagnosed as asthenic syndrome or psychoneurosis). Overall, results of these studies suggests a possible antidepressant action for R. rosea extract in adult humans.

SAFETY: In contrast to most conventional antidepressants, R. rosea extract appears to be well-tolerated in short-term studies with a favorable safety profile.

CONCLUSIONS: R. rosea demonstrates multi-target effects on various levels of the regulation of cell response to stress, affecting various components of the neuroendocrine, neurotransmitter receptor and molecular networks associated with possible beneficial effects on mood.

KEYWORDS: Clinical study; Molecular networks; Pharmacology; Rhodiola rosea L., Depression

PMID: 27013349 [PubMed - as supplied by publisher]

0 comments

How to join PubMed Commons