

Review

Evaluation of echinacea for the prevention and treatment of the common cold: a meta-analysis

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Summary

Echinacea is one of the most commonly used herbal products, but controversy exists about its benefit in the prevention and treatment of the common cold. Thus, we did a meta-analysis evaluating the effect of echinacea on the incidence and duration of the common cold. 14 unique studies were included in the meta-analysis. Incidence of the common cold was reported as an odds ratio (OR) with 95% CI, and duration of the common cold was reported as the weighted mean difference (WMD) with 95% CI. Weighted averages and mean differences were calculated by a random-effects model (DerSimonian-Laird methodology). Heterogeneity was assessed by the Q statistic and review of L'Abbé plots, and publication bias was assessed through the Egger weighted regression statistic and visual inspection of funnel plots. Echinacea decreased the odds of developing the common cold by 58% (OR 0.42; 95% CI 0.25–0.71; Q statistic $p < 0.001$) and the duration of a cold by 1.4 days (WMD -1.44 , -2.24 to -0.64 ; $p = 0.01$). Similarly, significant reductions were maintained in subgroup analyses limited to Echinaguard/Echinacin use, concomitant supplement use, method of cold exposure, Jadad scores less than 3, or use of a fixed-effects model. Published evidence supports echinacea's benefit in decreasing the incidence and duration of the common cold.

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