

Australian Research Finds Standardised Echinacea Root Prevented Respiratory Symptoms in Air Travellers

by Michelle Morgan

Dr Evelin Tiralongo and a team of researchers from Griffith University found that Echinacea root standardised for alkylamides (MediHerb Echinacea Premium) taken 14 days before and during long-haul air travel reduced the incidence of respiratory symptoms.

Method

Adults travelling return from Australia to America, Europe or Africa for a period of 1–5 weeks on commercial flights via economy class took MediHerb Echinacea Premium tablets or placebo in a randomised, double-blind trial. Travel consisted of a flying time of 15–25 hours and less than 12 hours stopover. Treatment began 2 weeks before flying overseas and finished 2 weeks after returning to Australia, hence the treatment time varied depending on the duration of travel i.e. 9 weeks for 5 weeks of travel.

The Echinacea Premium tablets contained *Echinacea angustifolia* (600 mg, dried root), *Echinacea purpurea* (675 mg, dried root) and 4.4 mg of alkylamides. The dose was one tablet twice daily, increasing to 2 tablets twice daily whilst flying. Participants were allowed to take a sick dose (3 tablets twice daily) if cold- or flu-like symptoms occurred. The sick dose could only be taken for up to 8 consecutive days or twice for 4 days during the whole travel period. Efficacy was assessed by surveys completed before travel (baseline), after travel (return) and 4 weeks after return from travel (follow-up). The surveys contained questions relating to upper respiratory symptoms (based on WURSS-44), jet lag, headache, sleep disturbances and cold sore for the previous 4 weeks at each individual time point (baseline, return and follow up).

WURSS-44 (44-item Wisconsin Upper Respiratory Symptom Survey) measures health and quality of life aspects negatively affected by the common cold using a 7-point severity scale ranging from very mild to severe. Thirty-two symptoms (e.g. cough, sore throat, feeling feverish, swollen glands, plugged nose, body ache) and 10 quality of life items (e.g. think clearly, breathe easily, accomplish daily activities) are included.

Minimal important difference (MID) is used to quantify the minimum amount of positive change that patients perceive and would accept as a clinically significant effect in a treatment. For WURSS-44, a MID of 16.7 points was determined. So, those that presented with a respiratory disorder symptoms score of 17 and above (RDS+) were compared in both groups at baseline, return and follow-up.

Results

- During travel the placebo group had significantly higher WURSS-44 scores on average compared to the Echinacea group (26 vs 13, $p = 0.05$).
- Fewer patients in the Echinacea group had respiratory disorder symptoms scores of 17 and above immediately after return from travel (43% compared to 57% in the placebo group, $p = 0.05$), and 4 weeks later at follow-up (25% vs 39%, $p = 0.03$). This suggests that a substantial number of those who suffer RDS+ would have benefitted from taking Echinacea during travel.
- The length of travel did not influence the results. The use of sick doses was similar in both groups and incidence of adverse effects was low.
- There was no significant difference between the groups with regard to sleep disturbances, prevalence of headache and cold sores.

The research is published in the online journal *Evidence-Based Complementary and Alternative Medicine (Evidence Based Complement Alternat Med; 2012; 2012: 417267)* and can be freely downloaded (www.hindawi.com/journals/ecam/2012/417267/). The researchers received industry funding from Integria Healthcare Pty Ltd for the trial, which was leveraged from an AusIndustry Grant through the Australian Government.