

Are any alternative therapies effective in treating asthma?

Meg Hayes, MD,
David Buckley, MD, and
Dolores Zegar Judkins, MLS
Oregon Health and Sciences
University, Portland

Evidence-based answer

Yes, some are. Acupuncture relieves subjective symptoms of asthma and reduces medication use in mild to moderate asthma (strength of recommendation [SOR]: **A**, based on systematic review of randomized controlled trials [RCTs] of variable quality). Herbal medications, such as *Ginkgo biloba*, appear to improve lung function, while herbs such as *Tylophora*

indica and *Tsumura saiboku-to* may decrease asthma symptoms (SOR: **B**, based on systematic review of RCTs with poor methodology). No evidence, however, supports the use of room air ionizers, manual therapy, homeopathy, or mind-body therapy for treatment of asthma (SOR: **A**, based on systematic reviews and meta-analyses of RCTs and individual RCTs).

Clinical commentary

Though this research is interesting, we should adhere to current guidelines

Guidelines for the diagnosis and management of asthma are widely disseminated by the National Asthma Education and Prevention Program through its Expert Panel Reports (updated in 2002).¹ Nevertheless, nearly 500,000 hospitalizations, 2 million emergency department visits, and 5000 deaths were reported annually in the US among those who have asthma.² Furthermore, a significant difference in asthma prevalence, health care use, and mortality was found among different ethnic groups.¹

Poor patient understanding of asthma control, nonadherence to medication

regimens, cultural beliefs, and disparity of access to the health care system, together with physicians' lack of close monitoring and inadequate compliance with national asthma guidelines, contribute to suboptimal control of chronic asthma. Family physicians must guide and empower their patients with the knowledge and responsibility of how to manage their asthma. For now, we should adhere to current national guidelines of management of asthma and avoid routine recommendation of any complimentary alternative treatments.

Vincent Lo, MD
San Joaquin General Hospital,
French Camp, Calif

FAST TRACK

No evidence supports use of room air ionizers, homeopathy, or mind-body therapy for the treatment of asthma

Evidence summary

Although complementary and alternative medicine (CAM) therapies are widely used, the overall body of research into CAM for asthma is still small and of limited quality. Interpreting the research

is hampered by lack of standardized therapeutic approaches, lack of accepted methods for appropriate trials, and the fact that many CAM treatments are used as part of a multi-pronged, individualized approach to treatment in actual practice.

CONTINUED

FAST TRACK

Some patients with mild to moderate asthma may benefit from acupuncture

Our search found 4 good-quality systematic reviews of RCTs, 1 good-quality systematic review of randomized trials, and 1 small additional pilot RCT of various CAM treatments for asthma.

Acupuncture and herbals provide some benefit

While a Cochrane review of 11 RCTs with variable trial quality and a total of 324 participants found that acupuncture had no significant effect on pulmonary function or global assessment of well-being, the review noted that some studies reported significant positive changes in daily symptoms, reductions in medication use, and improved quality of life. This suggests that some patients with mild to moderate asthma may benefit from acupuncture.³ In 1 RCT, improvement in general well-being was reported by 79% of 38 patients receiving acupuncture compared with 47% of 18 patients in the control group.⁴

When it comes to herbal remedies, a good-quality systematic review⁵ of 17 trials, with overall poor methodological quality and a total of 1445 participants, reported significant improvements in clinically relevant measures with 6 different herbal medicines.

- *Ginkgo biloba* liquor increased forced expiratory volume in 1 second (FEV₁) by 10% at 4 weeks and by a more clinically relevant 15% at 8 weeks (significantly greater than placebo, $P<.05$).
- **Invigorating Kidney for Preventing Asthma (IKPA)** tablets increased FEV₁ by 30% at 3 months compared with 17% in controls ($P<.05$).
- **Wenyang Tonglulo Mixture (WTM)** improved FEV₁ by 30% at 8 weeks compared with a 16% increase in the control group using oral salbutamol and inhaled beclomethasone ($P<.05$).
- **Dried ivy extract**, thought to work as both a secretolytic and bronchospasmodic, reduced airway resistance in children by 23.6% compared with placebo ($P=.036$).

- *Tylophora indica* (a rare herb also known as Indian ipecac) provided significant improvement in nocturnal dyspnea when compared with controls ($P<.01$) in a study that relied on patients' symptom diaries.
- **Tsumura saiboku-to (TJ-96)** provided patients in one RCT with significant, but unspecified, asthma symptom relief when compared with those in a control group ($P<.01$).⁵

Other therapies didn't quite make the grade

Homeopathy. A Cochrane review of 6 RCTs of mixed quality, with a total of 556 patients, concluded the evidence is insufficient to evaluate the possible role of homeopathy for the treatment of asthma, due to heterogeneity of interventions, patient populations, and outcome assessments. Each study evaluated a different homeopathic remedy, making any overall assessment difficult.

The review notes there have been only limited attempts to study a complete "package of care," which includes the in-depth, one-on-one consultation, treatment, and follow-up that characterizes most homeopathic treatment in practice.⁶

Room air ionizers. A Cochrane review of 6 good-quality trials with a total of 106 participants reported no significant effect of room air ionizers on pulmonary function measures, symptoms, or medication use.⁷

Manual therapy. A Cochrane review⁸ of 3 moderate- to poor-quality RCTs with 156 participants reported no significant effect of chiropractic spinal manipulation (2 trials) or massage therapy (1 trial) on lung function, asthma symptoms, or medication use.

Mind-body therapy. A pilot RCT⁹ with 33 adults found a nonsignificant reduction in medication use among the subjects practicing mental imagery, but no overall effect on lung function or quality-of-life measures.

CONTINUED

Recommendations from others

The New Zealand Guideline Group (NZGG)¹⁰ gives a Grade B recommendation for Buteyko Breathing Techniques as an intervention that may be helpful in reducing acute exacerbation medication use and improving patient quality of life. However, the NZGG did not find other benefits to this intervention and noted that it might be costly for the patient to obtain training in these techniques. The NZGG further recommends as a good practice point that healthcare professionals be open to the use of CAM therapies and that such therapies be tried by patients who are interested in them, with monitoring and self-assessment to assist patients in determining which therapies are of value. ■

References

- Guidelines for the diagnosis and management of asthma. Update on selected topics 2002. Available at: www.nhlbi.nih.gov/guidelines/asthma/index.htm. Accessed on March 30, 2007.
- Mannino DM, Home DW, Akinbami LJ, Morman JE, Guynn C, Redd SC. Surveillance of Asthma—1980–1999. *MMWR Surveill Summ* 2002; 51:1–13.
- McCarney RW, Brinkhaus B, Lasserson TJ, Linde K. Acupuncture for chronic asthma. *Cochrane Database Syst Rev* 2004; (1):CD000008.
- Joos S, Schott C, Zou H, Daniel V, Martin E. Immunomodulatory effects of acupuncture in the treatment of allergic asthma: a randomized controlled study. *J Altern Complementary Med* 2000; 6:519–525.
- Huntley A, Ernst E. Herbal medicines for asthma: a systemic review. *Thorax* 2000; 55:925–929.
- McCarney RW, Linde K, Lasserson TJ. Homeopathy for chronic asthma. *Cochrane Database Syst Rev* 2004; (1):CD000353.
- Blackhall K, Appleton S, Cates FJ. Ionisers for chronic asthma. *Cochrane Database Syst Rev* 2003; (3):CD002986.
- Hondras MA, Jones LK, Jones AP. Manual therapy for asthma. *Cochrane Database Syst Rev* 2005; (2):CD001002.
- Epstein GN, Halper, JP, Barrett, EA, et al. A pilot study of mind-body changes in adults with asthma who practice mental imagery. *Alternative Therapies* 2004; 10:66–71.
- New Zealand Guidelines Group (NZGG). The diagnosis and treatment of adult asthma. Best Practice Evidence-Based Guideline. Wellington, NZ: NZGG; 2007. Available at: www.nzgg.org.nz/guidelines/0003/Full_text_Guideline.pdf. Accessed on March 30, 2007.