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HerbClip™

File: ■ Echinacea (*Echinacea purpurea*)
■ Sage (*Salvia officinalis*)
■ Sore Throat

HC 100591-388

Date: November 13, 2009

RE: Study Finds Echinacea/Sage Throat Spray as Effective as Chlorhexidine/Lidocaine for Acute Sore Throat

Schapowal A, Berger D, Klein P, Suter A. Echinacea/sage or chlorhexidine/lidocaine for treating acute sore throats: a randomized double-blind trial. *Europ J Med Res*. September 1, 2009;14(9):406-412.

Sore throat is one of the most common ailments in general medical practice. Fewer than 20% of people with a sore throat are infected with *Streptococcus* and require antibiotic treatment, and sore throat is typically treated with pain relievers alone. Common over-the-counter drugs for relief of sore throat pain include analgesics and throat sprays (containing numbing agents or antibacterial ingredients). Echinacea (*Echinacea purpurea*) and common sage (*Salvia officinalis*) have anti-inflammatory, antimicrobial, and immune modulating properties and are also used to relieve sore throat and other symptoms of upper respiratory tract infections. The purpose of this study was to compare the effectiveness of a throat spray containing echinacea plus sage with a throat spray containing chlorhexidine plus lidocaine in relieving sore throat pain.

This randomized, double-blind, controlled trial was conducted by researchers at the Allergy Clinic in Landquart, Switzerland; D.S.H. Statistical Services GmbH in Rohrbach, Germany; and A. Vogel Bioforce AG in Roggwil, Switzerland. The subjects were recruited from 11 general practice clinics in Switzerland. The subjects were over the age of 12, had throat pain for less than 72 hours, and did not have a bacterial throat infection.

The subjects were randomly assigned to receive 1 of 2 throat sprays. The echinacea plus sage spray contained aqueous ethanolic extracts of *Echinacea purpurea* (863.3 mg/ml flowering aerial parts tincture and 45.5 mg/ml root tincture; Echinaforce® concentrate) and *Salvia officinalis* leaves (430 mg/ml leaf tincture). The tinctures were provided by A. Vogel Bioforce AG, Roggwil, Switzerland. The chlorhexidine plus lidocaine spray (Collunisol®; Sanofi AG; Switzerland) contained 1% chlorhexidine (an antiseptic) and 2% lidocaine (an anesthetic). In addition to receiving 1 of the active sprays, subjects received a placebo spray matching the active spray that they did not receive. This double-placebo method was used to

conceal the identity of the active spray. Subjects were instructed to spray the throat every 2 hours with the active spray and the placebo spray. Subjects continued using the spray until the throat pain was gone, for a maximum of 5 consecutive days. They were also given ibuprofen tablets to take if throat pain was not controlled with the sprays. Subjects were instructed to fill in a daily diary and record how many times they used each spray, how many tablets of ibuprofen they used, and how severe their throat symptoms were, using the Tonsillopharyngitis Severity Score scale. Vital signs were monitored and blood tests conducted to ensure safety at the beginning and end of treatment.

The trial enrolled 154 subjects: 80 allocated to the echinacea plus sage group and 74 to the chlorhexidine plus lidocaine group. A total of 133 subjects completed the trial according to protocol and were included in the efficacy comparison. The response rate, defined as a 50% reduction in the symptom severity score, was similar for the 2 groups after 3 days of treatment (69.6% in the echinacea plus sage group and 70.3% in the chlorhexidine plus lidocaine group). There were no significant differences in response rates between the 2 groups after 1, 2, or 3 days of treatment. The total amount of active spray and placebo spray used during the study was similar between the 2 groups, as was the usage of ibuprofen and both investigators' and subjects' overall ratings of the efficacy of the treatment. Five adverse events judged by the investigators to be related to the study sprays were reported. These included rash in the mouth, burning sensation and throat dryness in the echinacea plus sage group and tongue swelling and bitter taste in the chlorhexidine plus lidocaine group. About 94% of subjects in both groups rated the tolerability of the sprays as good or very good. C-reactive protein levels decreased in both groups, but all other blood values and vital signs remained the same.

The authors conclude that the throat spray containing echinacea plus sage was as effective in reducing sore throat symptoms and as well tolerated as the spray containing chlorhexidine plus lidocaine. They suggest that the spray is an effective alternative to oral and spray products containing analgesic and anesthetic drugs. The authors address the possibility that providing ibuprofen to the subjects may have biased the results. However, a subanalysis showed that the results were the same, regardless of whether or not subjects took ibuprofen.

The authors discuss results of placebo-controlled trials using throat sprays containing either sage or echinacea, but no trials comparing the combination spray to a placebo spray. They state that no studies are available on the effectiveness of the chlorhexidine plus lidocaine spray in sore throat, even though it is one of the leading products in Switzerland for sore throat relief and has been used for almost 50 years in several countries. The authors do not provide any data on the typical course of untreated sore throat in this population.

–Heather S. Oliff, PhD

The American Botanical Council has chosen not to reprint the original article.