Advances in therapy
Study Summary June 2011

Sage: Safe and efficacious for menopausal hot flushes[1]

Study objective: Sage *(Salvia officinalis)* has been traditionally used for hyperhidrosis, hot flushes, and night sweats in menopause. Hot flushes are the most frequent symptom, characteristic of up to 88% of women in menopause[2], and have a considerable, negative impact on quality of life[3]. There are no previously published clinical studies substantiating the use of sage in menopause. The aim of this trial was to assess tolerability and efficacy of a fresh sage preparation in the treatment of hot flushes and other menopausal complaints.

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Plant extract used: The study preparation consisted of tablets made from fresh sage leaves, as fresh extracts are regarded as superior with regards to efficacy[4], each containing 280 mg holistic, thujone-free sage spissum extract, equivalent to 3400 mg tincture of fresh sage leaves, sourced from organic cultivations, verified and manufactured by Bioforce AG (Roggwil, Switzerland).

Study design: Climacteric patients, menopausal for at least 12 consecutive months with at least 5 hot flushes daily, were recruited from eight general practices in Switzerland participating in this open trial. Concomitant use of other medication with an influence on climacteric complaints was not allowed. Patients were to take one tablet daily before strongest flushes for 56 consecutive days (8 weeks).

- Patient Diary: Using a diary, patients kept a daily record of the number and intensity of hot flushes. Each hot flush was allocated an intensity using the grading mild, moderate, severe, and very severe, according to the intensity classification by Sloan[5].

- Medical evaluation of clinical complaints: Menopause Rating Scale (MRS) is a standardised and formally validated scale to measure the severity of 11 climacteric symptoms and related subscales. Changes in the scores on the MRS during therapy were evaluated by the treating physician at visit 1 (day –7 prior to start of treatment) and visit 3 (day 56).

- Medical examination: The safety parameters considered were: frequency of adverse effects, global assessment of tolerability by physician and patient, blood pressure and laboratory blood values.

Study Results

Participants: The mean age of patients was 56.4±4.7 years. All patients undergoing treatment – 69 women in total, – were evaluated according to ITT analysis.

Efficacy – hot flushes:

Intensity-rated hot flushes

The total score of the mean number of intensity-rated hot flushes (TSIRHF) decreased significantly by 50% and 64% within 4 and 8 weeks, respectively.

[1] Bommer S, Klein P, Suter A. First time proof of sage's tolerability and efficacy in menopausal women with hot flushes. Adv Ther. 2011 Jun;28(6):490-500. doi: 10.1007/s12325-011-0027-z. Epub 2011 May 16.
[2] Freeman EW, Sherif K. Prevalence of hot flushes and night sweats around the world: a systematic review. Climacteric. 2007;10:197-214.
[3] Ohayon MM. Severe hot flashes are associated with chronic insomnia. Arch Intern Med. 2006;166:1262-1268.
[4] eNotes.com web site. Encyclopedia of Food & Culture: Herbs and Spices. Available at: http:// www.enotes.com/food-encyclopedia/herbs-spices. Accessed April 28, 2011.
[5] Sloan JA, Loprinzi CL, Novotny PJ, et al. Methodologic lessons learned from hot flash studies. J Clin Oncol. 2001;19:4280-4290.

Note: The standardised Sage fresh plant extract investigated corresponds to the product Menosan® resp. Menoforce® (A.Vogel Bioforce AG, Roggwil, Switzerland) regarding use of raw materials, manufacture and composition.

Change in total score of the mean number of intensity-rated hot flushes (TSIRHF) from week 0 to week 8

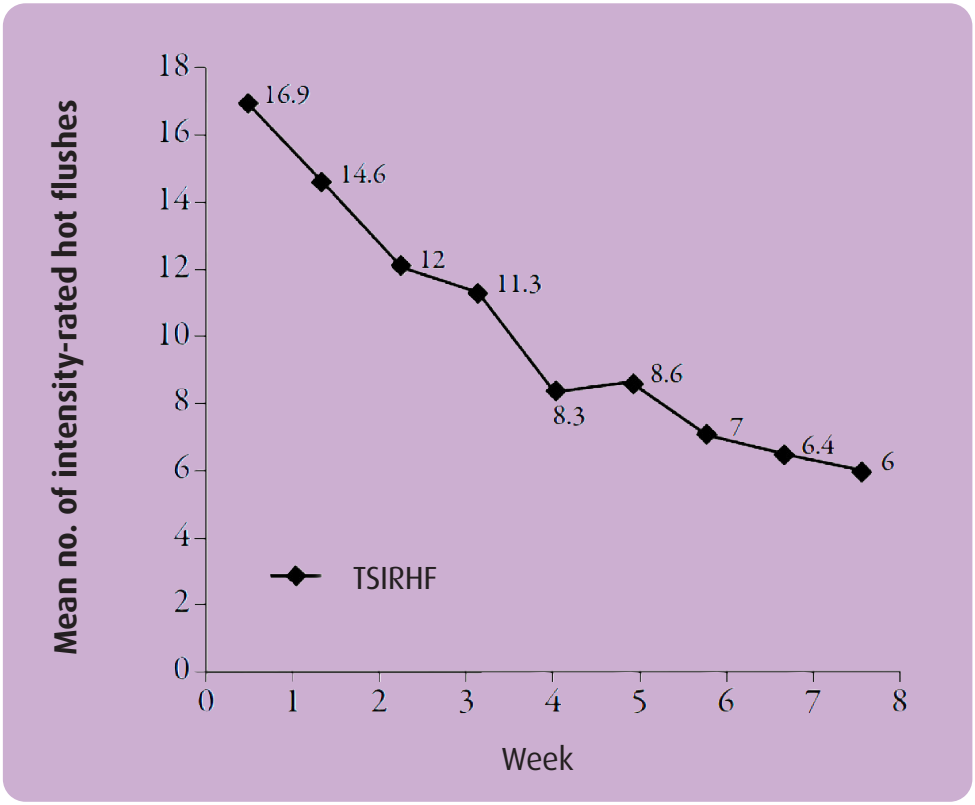

Figure 1
The total score of the mean number of intensity-rated hot flushes (TSIRHF) decreased significantly by 50% and 64% within 4 and 8 weeks, respectively.

Number of daily hot flushes
The mean total number of hot flushes per day decreased from 9.3±12.2 to 3.8±3.5 after 8 weeks (P=0.0001) and showed a reduction of 29% after 2 weeks and 48% after 4 weeks of therapy (P=0.0001).

Intensity groups
The reduction from week 0 to week 8 of the mean number of mild flushes was 46% (P>0.05). Moderate flushes were reduced by 62% (P=0.0001), severe flushes by 79%, and very severe flushes by 100% (P<0.05).

Efficacy – MRS scale: Results showed a statistically significant decrease in the mean global MRS score (-43%) and all related subscores – the somato-vegetative subscale (-43%), the psychological subscale (-47%), and the uro-genital subscale (-20%). A significant decrease was observed in all MRS symptoms, with the exception of the symptoms "sexual problems", "bladder problems" and "dryness of vagina". The most pronounced decrease was observed in "hot flushes" and "sleep problems".

Safety: A total of 10 adverse effects were observed in six patients, of which only two (mild abdominal pain and mild diarrhoea) were related to the study medication. Tolerability was rated as very good or good by 90% of physicians and patients. Evaluation of the laboratory parameters demonstrated a high degree of safety and no significant change.

Conclusion: The data supports sage's traditionally accredited value in treating climacteric complaints in general and especially hot flushes. This is the first published clinical study to show efficacy of a sage mono-preparation in relieving both hot flushes and symptoms associated with menopause. Sage offers a valuable option for patients and healthcare providers seeking an alternative approach to the treatment of menopausal hot flushes and climacteric complaints.

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