

Survey of Chaste Tree Use and Dosage by Australian Practitioners

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Uses

Chaste Tree (*Vitex agnus-castus*) is one of the most widely used herbs in Western Herbal Medicine for the treatment of female reproductive complaints, most commonly premenstrual syndrome (PMS). Historical use of Chaste Tree reaches back to the Middle Ages when the ripe berries were regarded as a symbol of chastity and were used to 'suppress sexual excitability'. The main traditional uses of Chaste Tree occurred in Europe where it was used for a variety of gynaecological problems and was an archetypal 'women's herb' in some Mediterranean traditions.^{1,2}

Modern scientific interest in Chaste Tree developed in Germany in the 1930s with the majority of research relating to PMS and luteal phase deficiency. More recent research carried out in the late 1900s revealed a number of new uses for this herb and expanded our understanding of how it exerts its activity. Based on German research in the 1960s it was thought that Chaste Tree produced hormonal effects by increasing luteinising hormone (LH) from the anterior pituitary.³ However research published in the 1990s, has changed this thinking. It is now known that Chaste Tree exerts a dopaminergic activity which in turn helps to lower prolactin.

This may explain its effectiveness for the treatment of PMS which is often associated with latent hyperprolactinaemia resulting in corpus luteal insufficiency. A number of clinical trials have demonstrated efficacy for Chaste Tree in the treatment of corpus luteal insufficiency/latent hyperprolactinaemia.⁴⁻⁸

In addition to the dopaminergic activity Chaste Tree appears to also increase melatonin levels. A clinical study⁹ demonstrated that Chaste Tree increases melatonin release, indicating that it may be beneficial for sleep disorders where a disturbance in melatonin secretion plays a role. Three different doses of Chaste Tree extract were used ranging from 120 mg to 480 mg per day (600–2400 mg/day of dried herb equivalent, assuming a 5:1 extract was used). The highest dose resulted in the greatest melatonin increase (60%).

Dosage

There is much controversy and confusion regarding the dosing of Chaste Tree for different conditions and many practitioners are unsure of the most appropriate dose for individual clients. This confusion can be due partly to the fact that doses used in clinical trials vary greatly and are not always clear. For example, doses of extract range from as low to 20 mg daily⁸ for the treatment of cyclic disorders to 480 mg daily for melatonin increase.⁹

To add to the confusion there are a variety of doses used by different practitioners to treat the same condition. We have recently confirmed this diversity of dosing whilst conducting a survey amongst practitioners to assess use and dosage of Chaste Tree in Australian clinics. Dr Ann Walker found a similar variety of dosing regimes for practitioners in the UK.¹⁰ For example, fluid extract doses varied from 4 drops to 62 drops daily and tablet doses varied from 140.5 mg to 560 mg daily, with an overall average of 440 mg/day.

Recent Survey Results

We contacted and enrolled a total of twelve practitioners in our survey. Each of these practitioners has many years of experience in treating women with hormonal and reproductive problems. We would like to thank the following practitioners for their valuable time in completing this survey: Angela Doolan, Angela Hywood, David McLeod, Debbie Leigh, Francesca Naish, Samantha Bulloch, Tracey Cook, Vicki Turner, Victoria West, Zam Martin and other well known practitioners.

Method

In most cases practitioners were phoned and the questionnaire was filled by either Rob Santich or myself according to information provided. The completed survey forms were then emailed to each practitioner for verification of accuracy of the information. In some cases practitioners corrected or added other relevant information and returned the survey form to us by return email. Three practitioners received the blank survey form via email, filled it out and returned the completed form to us.

Results

Participants were asked which of the following conditions they prescribed Chaste Tree for: PMS, uterine fibroids, endometriosis, PCOS and menopause/perimenopause. conditions in males, any other conditions not specifically listed. They were also asked to provide the daily dosage range used to treat each condition and the approximate length of time it took to obtain significant symptom relief (*see Table 4*). The results for both liquid extract (Table 1) and tablet doses (Table 2) are summarised.

Condition	Number of Practitioners	Minimum Daily Dose*	Maximum Daily Dose*	Average Daily Dose*	Median Daily Dose*
PMS	7	350 mg	2500 mg	1470 mg	1400 mg
Uterine fibroids	6	1000 mg	2500 mg	1600 mg	1400 mg
Endometriosis	5	1000 mg	2500 mg	1650 mg	1400 mg
PCOS	6	330 mg	2000 mg	1273 mg	1400 mg
Perimenopause	6	350 mg	1750 mg	1379 mg	1400 mg
Insomnia	4	1400 mg	2000 mg	1519 mg	1400 mg

Table 1. Liquid extract (1:2) dosage of Chaste Tree by condition.

Note: * in dried herb equivalent

Condition	Number of Practitioners	Minimum Daily Dose*	Maximum Daily Dose*	Average Daily Dose*	Median Daily Dose*
PMS	10	180 mg	2000 mg	584 mg	562.5 mg
Uterine fibroids	7	180 mg	2000 mg	830 mg	750 mg
Endometriosis	9	180 mg	2000 mg	975 mg	1000 mg
PCOS	9	180 mg	2000 mg	875 mg	768 mg
Perimenopause	10	180 mg	2500 mg	916.5 mg	937.5 mg
Insomnia	4	500 mg	2000 mg	1250 mg	1125 mg

Table 2. Tablet dosage of Chaste Tree by condition.

Note: * in dried herb equivalent

Participants were also asked to list any other conditions for which they prescribe Chaste Tree. The most significant of these are summarised in Table 3.

Condition	Number of Practitioners	Minimum Daily Dose*	Maximum Daily Dose*
Acne in males	1	1400 mg ⁺	2000 mg ⁺
Acne in females	1	1000 mg	1000 mg
Acne in males & females	2	1000 mg	1500 mg
Fibrocystic breast disease	1	1000 mg	2000 mg
	1	1000 mg ⁺	1400 mg ⁺
Luteal phase defects (other than PMS)	1	1000 mg	3000 mg
	1	1500 mg ⁺	2500 mg ⁺
Abnormal menstrual bleeding pattern	2	1000 mg	2000 mg
	2	1000 mg	2500 mg
Elevated prolactin	2	1000 mg ⁺	2000 mg ⁺

Table 3. Other uses of Chaste Tree.

Notes: * in dried herb equivalent + As 1:2 fluid extract

The time taken to achieve a significant symptom improvement varied between practitioners and conditions. It must be noted that all practitioners stressed that they always or almost always used Chaste Tree in combination with other herbal medicines and possibly other modalities. Therefore, any outcomes cannot be attributed solely to Chaste Tree, however most practitioners felt that Chaste Tree was a very significant herb in their treatment protocols. Some practitioners also commented that outcome depended on a number of factors including severity of the condition, general health of the patient, diet and lifestyle and compliance.

Condition	Time to Significant Improvement in Symptoms
PMS	Most practitioners saw significant improvement in the first cycle with long lasting benefits within 3 cycles. All practitioners saw significant improvement within 3 cycles.
Uterine fibroids	All practitioners note a significant improvement in symptoms such as heavy bleeding in a range to 1 to 4 cycles. The majority noted the significant improvement within 3 cycles. Effects on fibroid growth and size were variable and may depend on the type and size of the fibroid/s.
Endometriosis	Practitioners report very varied responses to treatment. A significant improvement can be seen in the first cycle in some patients, or it may take up to 6 months in other patients. One practitioner suggested it can take up to 9 months and one practitioner felt Chaste Tree was not effective.
PCOS	Although some practitioners reported improvement within the first cycle most practitioners seem to agree that 3 to 6 months is needed to bring about a significant, lasting improvement.
Perimenopause	Time to improvement may depend on the symptoms associated with perimenopause in individual patients. Most practitioners report a significant improvement within 4 to 8 weeks, however some practitioners report it may take up to 12 weeks.

Table 4. Time taken for clinical improvement using Chaste Tree.

Conclusion

It is clear from the results of this recent survey and the 1997 survey carried out by Dr Ann Walker in the UK, that the dosing of Chaste Tree varies greatly among practitioners and between different conditions. It is up to us as practitioners to determine the most appropriate and effective dose for each individual patient at any given time. Above all, practitioners need to feel confident and comfortable with the herbs they prescribe and the dosage regimes they use. However, doses used by herbal clinicians in Australia seem to be substantially higher than doses used in Europe, especially in clinical trials. The reasons for this could be many, but probably reflect on the outcomes of their clinical experience, what they were originally taught and the fact that radically different conditions (such as melatonin release) require different doses (to say PMS).

REFERENCES

- ¹ Mills SY. *Out of the Earth: The Essential Book of Herbal Medicine*. Viking Arkana (Penguin), London, 1991, pp 10-51.
- ² Mills SY. *Woman Medicine: Vitex agnus-castus, the herb*. Amberwood, Christchurch, UK, 1992, pp 10-15.
- ³ Haller J. *Z Geburtshilfe Gynakol* 1961; **156**: 274-302
- ⁴ Probst V, Roth OA. *Dtsch Med Wschr* 1954; **79**(35): 1271-1274
- ⁵ Propping D, Bohnert KJ, Peeters M et al. *Therapeutikon* 1991; **5**: 581-585
- ⁶ Roeder D. *Z Phytother* 1994; **15**(3): 157-163
- ⁷ Peters-Welte C, Albrecht M. *TW Gynakol* 1994; **7**(1): 49-52
- ⁸ Milewicz A, Gejdel E, Sworen H et al. *Arzneim-Forsch* 1993; **43**(7): 752-756
- ⁹ Derricks-Tan JS, Schwinn P, Hildt C. *Exp Clin Endocrinol Diabetes* 2003; **111**(1): 44-46
- ¹⁰ Christie S, Walker AF. *Eur J Herb Med* 1997; **3**(3): 29-45