

## Primary Dysmenorrhea and Herbals **Hilmiye Aksu and Sevgi Özsoy**

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### Introduction

As a common gynaecological problem, dysmenorrhea affects women of all ages and all races. Dysmenorrhea affects women's quality of life. Various methods have been used to treat dysmenorrhea. Herbals are commonly used in the treatment of dysmenorrhea. This article are discussed the use of some herbals for treating dysmenorrhea.

Dysmenorrhea, originally Greek, is explained in the literature as in the following: Dys means difficult, painful or abnormal, meno means month and rhea means flow or discharge [1]. Clinically, it refers to pain during menstruation severe enough to prevent daily activities and to require taking analgesics [2]. Briefly, it means painful periods. One of the most important gynaecological complaints causing pain, dysmenorrhea deserves attention.

As a common gynaecological problem, dysmenorrhea affects women of all ages and all races. Its incidence varies widely. To be more specific, it ranges from 16.8% to 81.3% [3]. This troublesome condition causes loss of work days, attendance problems at school, decreased work efficiency and increased accidents, which result in financial losses. It also affects the quality of life and performance in daily life activities in women [3, 4].

Dysmenorrhea is classified into two: i.e., primary and secondary. There is not an underlying pathological condition in primary dysmenorrhea while secondary dysmenorrhea results from an organic pathology. Primary dysmenorrhea is one of the most frequent gynaecological problems in female adolescents. It usually appears in menstrual cycles involving ovulations without any pathological conditions. Sixty percent of menstrual cycles are unovulatory in 1-2 years after menarche. Therefore, primary dysmenorrhea emerges 1-2 years after menarche when ovulatory menstrual cycles are established. It is frequently encountered at middle and late adolescence [3-5].

Not all women experience the same severity of dysmenorrhea. It is milder and does not affect daily life activities in some women while it is more severe and prevents daily routines in other women, which force them to seek for medical treatment. Treatment of dysmenorrhea is multifaceted. However, some practices other than medications can be sufficient for prevention of dysmenorrhea. Among the most popular practices are herbs. The role of such herbs in management of dysmenorrhea as fennel, ginger, cinnamon and rose, which are usually available in kitchens of all people, has been of great interest.

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### Herbal Therapy and Dysmenorrhea

Many women use herbs to alleviate primary dysmenorrhea. Gholami [6], in a systematic review, analysed 24 studies on effects of herbs on dysmenorrhea and found that thyme (*Thymus vulgaris*), chamomile tea (*Matricaria chamomilla*), St. John's wort (*Hypericum perforatum*), fennel (*Foeniculum vulgare*), cinnamon (*Cinnamomum*), dill (*Anethum graveolens*), saffron (*Colchicum*), celery (*Apium graveolens*), anise (*Pimpinella anisum*), balm (*Balsamum*), valerian (*Valeriana officinalis*), mint extract (*Menthe longifolia*) and organic honey were effective in alleviating primary dysmenorrhea.

Mirabia et al. [7] reviewed 25 randomized controlled studies comparing pharmacological treatment with herbs and concluded that there was promising evidence for treatment of primary dysmenorrhea and that using herbal medicine could be an alternative for medical treatment. They stated that most of the studies reviewed were about *Fennel vulgare* and that this herb could be used reliably for treatment of dysmenorrhea. In addition, ginger (*Zingiber officinale*), sage (*Salvia lundulifolia*), chamomile (*Matricaria chamomilla*) and valerian (*Valeriana officinalis*) were found to be effective in the treatment of dysmenorrhea, but it was recommended to conduct further studies about these herbs.

## Fennel

Nasehi et al. [8], compared effectiveness of ibuprofen with that of a combination of fennel extract and vitamin E to decrease pain severity in primary dysmenorrhea. They found that the combination of fennel extract and vitamin E was effective in reduction of pain and could be recommended to women not wanting to take medical preparations.

Bokaie et al. [9] in their randomized controlled study administered 25 drops of fennel at six hour-intervals to one group and mefenamic acid 250 mg to the other group. The groups were followed throughout two menstrual cycles. They reported that there was no significant difference in pain severity between the groups and that fennel was as effective as non-steroidal anti-inflammatory drugs. Ghodsi and Asltoghiri [10] also stated that fennel capsules could be used to alleviate dysmenorrhea safely.

## Ginger

Ginger is one of the herbs on which extensive research has been conducted. Jenabi [11] found that ginger minimized pain in primary dysmenorrhea and improved nausea. Ozgoli et al. reported that ginger was as effective as mefenamic acid and ibuprofen in relief of pain in women with primary dysmenorrhea. However, they suggested that further studies about effectiveness of ginger on dysmenorrhea and its doses, side-effects and safety at different periods of treatment should be performed [12].

Shirvani et al. [13] in their clinical randomized controlled study assigned 122 girls with moderate or severe dysmenorrhea into two groups. One group was given mefenamic capsules 250 mg at eight hour-intervals and the other group was given ginger capsules. They reported that there was not a significant difference in pain severity and duration between the groups and that ginger was as effective as mefenamic acid in alleviation of primary dysmenorrhea. They added that ginger did not have any side-effects. As a result, it can be considered as alternative treatment for primary dysmenorrhea.

Rahmana et al. [14] found that ginger given for five days reduced

pain severity and duration in students. Chen et al. [15] in their systematic review and meta-analysis examined studies comparing ginger, non-steroidal anti-inflammatory drugs and placebo. They discovered that ginger was more effective in relieving pain than placebo and that there was no significant difference between ginger and non-steroidal anti-inflammatory drugs. Evidence from studies mentioned above indicate that ginger is an effective treatment alternative for dysmenorrhea; however, the methodological quality of these studies are not very high.

## Cinnamon

Jaafarpour et al. [16] in their double-blind randomized controlled study compared placebo, ibuprofen and cinnamon. They showed that cinnamon significantly decreased pain when compared to that of placebo, but that its effect was weaker when compared to that of ibuprofen. They concluded that cinnamon could be a reliable and effective treatment alternative for primary dysmenorrhea. Jaafarpour et al. [17] in another study compared cinnamon and placebo in terms of pain relieving effects and side-effects and found that cinnamon alleviated dysmenorrhea without producing such side-effects as excessive bleeding, nausea and vomiting.

## Rose

Tseng et al. from Taiwan [18] compared women having rose tea and those not having rose tea in terms of dysmenorrhea one, three and six months later. They detected a gradual improvement in symptoms of those having rose tea. They suggested that rose tea, traditionally consumed in Taiwan, can be used to alleviate symptoms of dysmenorrhea in other countries.

## Conclusion

There has been an increasing interest in non-pharmacological treatment alternatives now. Women can use herbal remedies more comfortably to decrease dysmenorrhea symptoms. Therefore, health care providers can recommend these remedies to women for management of dysmenorrhea. However, well-designed studies about roles, doses, side-effects and administration routes of herbal remedies should be conducted.

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