



MANAGEMENT OF PERIMENOPAUSAL SYMPTOMS

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Abstract:

Perimenopause, a natural transition to menopause, is marked by significant hormonal and reproductive changes. These changes have been meticulously documented, along with the symptoms that go along with them. Nearly 90 percent of women seek advice from their healthcare professional on how to deal with these frequent perimenopausal symptoms because they are so unpleasant. The majority of women have hot flashes, a common menopause symptom that can be mildly to highly bothersome for about one-third of them. While the majority of women only have hot flashes for a year or two, some do so for ten years or longer, and a small percentage will never be free of them. As perimenopausal women age, both menopausal transition and aging contribute to an increased prevalence of poor sleep. Anxiety and melancholy mood are more common in women who are in the later phases of the menopausal transition and have prolonged amenorrhoeic episodes. These common symptoms frequently combine, such that depressed women have more warm flashes and sleep problems. Vaginal dryness, altered bleeding patterns, and dyspareunia grow more common as women progress through the transition, impacting roughly a third of the population. Perimenopausal symptoms result in social repercussions that ultimately lower their quality of life. (QOL). In developing nations like India, where the number of women in the perimenopause phase is substantial, the poor QOL of these women will have a serious negative impact on public health. Anxiety and melancholy mood are more common in women who are in the later phases of the menopausal transition and have prolonged amenorrhoeic episodes.

Keywords: Perimenopause, estrogen, progesterone, anxiety, amenorrhea, phytochemicals.

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INTRODUCTION:

The final years of a woman's reproductive life are surrounded by an ambiguous time period known as the perimenopause. It begins with the earliest indications of menstrual irregularity and concludes with the final menstrual cycle after a year of amenorrhea ¹. The time between the onset of diminishing levels of estrogen and the onset of ovarian failure is usually many years long ². This perimenopausal period can start at any age and last for months or years ³. While many patients may experience little or no symptoms when estrogen levels begin to fall, as they approach ovarian failure, the majority of patients will suffer symptoms and sequelae ^{4,5}. Harlow SD et al., and Santoro N et al., studied that vasomotor symptom, falling bone mass, urogenital alterations, infertility ⁶, irregular uterine bleeding, and psychosexual dysfunction are among side effects of ovarian failure⁷. The menopausal transition is separated into two stages: the early transition, when cycles are mainly regular with little interruptions, and the late transition, when amenorrhea becomes more persistent and lasts for at least 60 days, up to the FMP ^{8, 5}. The severity of perimenopausal symptoms varies from person to person as a result of confounding variables such as lifestyle, status in society, body composition, and psychological status. Women who have menopausal symptoms, particularly the vasomotor and sexual problems, have lower QOL ^{9,10}. QOL is defined as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns" ¹¹. This systematic review sets out to examine the current literature on symptoms of perimenopause and the impact of managing these symptoms on quality of life of a woman.

METHODOLOGY:

Literature Collection – The relevant studies were searched by screening the PubMed, Medline, ScienceDirect and Google Scholar database. References of included studies and related articles were also reviewed to find other relevant research papers.

RESULTS AND DISCUSSIONS

Symptoms of perimenopause:

The hormonal symptoms of perimenopause may be difficult to distinguish from more general changes brought on by ageing or frequent midlife events like children leaving the nest ³, the loss or illness of parents, changes in relations or livelihoods ¹².

Vasomotor

●**Night sweats and hot flashes:** According to research by Freeman EW et al., 35 to 50 percent of perimenopausal women experience erratic body heat waves that last for 5 to 10 minutes and are accompanied by perspiration and flushing. These episodes can happen at any time of day or night. The symptoms that women with them experience vary greatly; some are simply mildly warm, while others are dripping wet ¹³. Usually, they begin in the chest, neck, face, or scalp.

Urogenital

●**Dryness in vaginal area:** Falling estrogen levels during late perimenopause can cause genitalia tissue to shrink and dry. Itching and discomfort can be caused by vulva dryness. It could also be a source of discomfort during sexual activity, resulting in a decrease in sexual drive in middle age ^{2,6}.

●**Changes in sexual desire:** Sexual arousal and desire may fluctuate during perimenopause. However, if a woman had adequate sexual relations prior to menopause, it is likely that this will continue throughout perimenopause and beyond ¹².

●**Complications with uterine haemorrhage:** When there is inadequate progesterone to regulate endometrial growth, extremely heavy periods may result from the uterine lining getting thicker before being removed. Also, when oestrogen is present, endometriosis and fibroids, which are benign tumours of the uterine wall, become more painful. Endometrial tissue spreading to other pelvic structures is known as endometriosis ¹⁴.

Psychosomatic

●**Disruptions in sleep:** Dinnerstein L et al., studied sleep issues affecting about 40% of perimenopausal women. Hormone oscillations alone aren't enough to explain the situation. As we get older, our sleep patterns alter, and sleeplessness is a typical age-related problem in both men and women ¹⁵.

●**Mood swings:** Guthrie JR et al., estimated that 10 percent–20 percent of perimenopausal women developed mood issues. There is no proof that declining hormone levels in women in their forties and fifties cause depression, despite some study linking oestrogen to menopause transitional depression ¹⁶. However, after the age of 45, women experienced depression at a lower incidence than men ¹⁷. Although the uncertainty of perimenopause might be stressful and trigger some periods of irritation, menopause-

related hormone changes are unlikely to make women worried or persistently irritable. Hormone-related mood swings may also make some women more vulnerable than others. Stress from daily living, poor general health, and a history of depression were the three main predictors of mood problems in midlife¹⁸.

Psychological

• **Additional issues:** Burger HG et al., studied that during the menopausal transition, many women experienced amnesia and inattentiveness. Although estradiol and progesterone are important for brain function, there isn't enough data to distinguish the impact of age and psychosocial variables from hormone changes¹⁹.

Cardio discomfort

Fluctuating cholesterol levels: Low oestrogen levels can lead to harmful changes in blood cholesterol levels, such as an increase in low-density lipoprotein (LDL), or "bad" cholesterol, which raises the risk of heart disease. The "good" cholesterol, high-density lipoprotein (HDL), is often seen to decline in many women as they age, raising their risk of heart disease^{14, 20}.

Managing of Perimenopause Symptoms

• **Vasomotor signs:** According to Soules MR et al., the first rule is to stay away from potential hot flash triggers such as warm air temperatures, hot drinks, and spicy meals. Dress in layers to allow to remove clothing as needed²⁰. Hot flashes have been reported to occur less frequently when using paced respiration, a deep breathing technique. The best

remedy for severe night sweats and hot flashes is oestrogen¹⁹.

• **Hormonal inconsistencies:** If a woman needs contraception and does not smoke, take low-dose contraceptives till midlife. In addition to controlling menstruation and reducing the perimenopausal women's erratic hormonal swings, these medications have been associated with improved mood in some women^{3, 8}.

• **Dryness in the vaginal area:** Low-dose birth control pills or genitalia oestrogen (in the form of ointment, vaginal ring or capsule) have been shown in studies by Avis NE et al., and Freeman EW et al. (2020) to help alleviate vaginal dryness, but they aren't the only alternatives. Using a vaginal moisturiser twice a week can increase vaginal suppleness, wetness, and acidity^{6, 13}. The vaginal area is protected from infection by an acidic environment, which is maintained by continued copulation activity and appears to increase vaginal tone¹⁶.

• **Heavy bleeding and irregular periods:** Studies by Brink and Abdullah suggested that low-dose contraception pills are an appropriate option for women who experienced haemorrhaging and don't want to get pregnant.^{21, 22} By preventing ovulation, they alter menstrual flow, control cycles, and stabilise endometriosis. Additionally, they aid in the prevention of hot flashes, vaginal dryness, endometrial and ovarian malignancies, as well as bone loss and cancers of the uterus and ovaries¹⁸.

Table 1: Managing through phytochemicals

Common name	Phytochemical	Improvement	Interventional Studies and their Impact	
			Interventional Studies	Benefits in Perimenopausal Symptoms
Black cohosh (Actaea/Cimicifuga racemosa)	N-methylserotonin (serotonergic)	125 mg/day for 12 months ²³ .	Irritation, vaginal dryness, nocturnal sweats, heart palpitations, hot flashes, and sleep disruptions	Vasomotor, urogenital, cardio discomfort, psychosomatic symptoms
Ginger (Zingiber officinale)	Gingerols/ shogaols	A small study found that ginger (250 mg, four times day) for three days from the start of menstruation ²⁴	Depression, stress, decreased libido, fatigue	Psychosomatic, physiological
Soy (Glycine max)	Genistein, daidzein-equal	50-100 mg/day for 12 weeks (isoflavones extract) ²⁵ .	Hot flashes, fatigue, depression, irritability and anxiety	Vasomotor, physiological, psychosomatic
Red clover (Trifolium pratense)	Biochanin A-genistein	For 12 weeks, take 40 milligrams of dried red clover every day ^{25, 26} .	Hot flashes, vaginal dryness, cardiovascular disease	Vasomotor, urogenital, cardio discomfort
Evening primrose (Oenothera biennis)	Gamma-linolenic acid	500 mg each day for six weeks ^{25, 27} .	Hot flashes, night sweats	Vasomotor
Licorice (Glycyrrhiza)	Liquiritigenin	330 mg per day for eight weeks ²⁸ .	Anxiety, hot flashes	Psychosomatic, vasomotor
Rhubarb (Rheum raphaniticum)	Piceatannol Prepared from roots	12 weeks ^{29, 30, 31} .	Vaginal dryness, urinary tract infection, depression	Urogenital, Psychosomatic
Dong quai (Angelica sinensis)	Ligustilide	4.5 g/day for 24 weeks ^{25, 32} .	Heavy bleeding, irregular periods	Urogenital

Hops (<i>Humulus lupulus</i>)	Xanthohumol Extracts	500 mg in tablet form for 90 days ^{33, 36} .	The onset of hot flashes, nocturnal sweats, mood changes, depression, and disturbed sleep	Vasomotor, psychosomatic
Kudzu (<i>Puer aria lobata</i>)	Daidzein	100 mg for 3 months ³⁴ .	Irritability, anxiety, depression	Psychosomatic
<i>Valeriana officinalis</i> (valerian)	Valerenic acid Extracted from roots	160 mg/day in capsule form for 8 weeks ^{35, 36} .	Sleep disturbances, Hormonal inconsistency	Psychosomatic Psychological,

In the US, black cohosh is the most widely used plant for treating perimenopausal symptoms. Native Americans have long employed black cohosh's roots and rhizomes to treat a range of women's health conditions. According to studies, taking 125 mg of black cohosh daily for a year significantly reduced the severity of perimenopausal symptoms such as vasomotor symptoms, nocturnal sweating, vulva dryness, heart pulsation, sleep problems, and irritability²³. A significant source of lignans is flaxseed, which the gut flora breaks down into the mildly active phytoestrogens enterolactone and enterodiol. Significant improvements were seen in vasomotor, psychosomatic symptoms, such as hot flashes and mood swings, were observed in a randomised placebo-controlled clinical trial including 90 women and one gram of flaxseed per day²⁴. Due to the extensive presence of phytoestrogens such as genistein, daidzein, biochanin A, and formononetin, soy and soy-based products have gained a lot of attention. Isoflavones are beneficial for reducing perimenopausal symptoms such hot flashes, exhaustion, low mood, irritability, and anxiety when taken in doses ranging from 50 to 100 mg per day for 12 weeks²⁵. Red clover contains the active isoflavones biochanin A and formononetin. A trial including 72 women who were randomly assigned to either placebo or 40 mg of dried red clover daily for 12 weeks revealed a significant decrease in perimenopause symptoms such hot flashes, vaginal dryness, and cardiovascular illness^{25, 26}. Gamma-linolenic acid and other omega-6 essential fatty acids are abundant in evening primrose oil. A significant reduction in the frequency and intensity of hot flashes and night sweats was observed in the evening primrose (500 mg per day for six weeks) group in a randomised placebo-controlled clinical trial on 56 perimenopausal women^{23, 27}. Licorice is a plant that is widely used, primarily as a sweetener in toothpaste, food, and drink. In a double-blind placebo-controlled research, 90 women who took licorice 330 mg daily for 8 weeks experienced a significant reduction in anxiety and hot flashes²⁸. In Germany, rhubarb is a popular herb for treating perimenopausal symptoms. A number of

double-blind, placebo-controlled studies have examined the efficacy and safety for treating

premenopausal symptoms, with encouraging findings^{29, 30, 31}. All of these studies demonstrate that using rhubarb extract for 12 weeks successfully reduced perimenopausal symptoms such urinary tract infection and vaginal dryness while also improving quality of life. In a study, 71 perimenopausal women were randomly assigned to take 4.5 mg of Dong Quai daily for 24 weeks. The results indicated a significant decrease in heavy bleeding and irregular periods^{35, 32}. Some dietary supplements contain *Humulus lupulus* (hops) extracts to treat perimenopause symptoms. Hot flashes, night sweats, mood swings, sadness, and sleep disruption were statistically significantly reduced in recent research utilising a daily dose of 500 mg hops in tablet form (120 women, 90 days)^{33, 36}. Traditional Chinese medicine used kudzu to treat perimenopausal symptoms. Significant improvements in irritability, anxiety, and depression were seen in a three-month, randomized, controlled clinical trial of 127 women between the ages of 40 and 50 who received kudzu standardized to 100 mg isoflavones³⁴. Valerian root extracts are frequently used to induce sleep and enhance the quality of sleep, indicating that they are effective for perimenopause symptoms, particularly night sweats. A randomised placebo-controlled trial with valerian root (160 mg daily in capsule form for eight weeks) demonstrated a significant decline in sleep problems^{35, 36}.

CONCLUSION:

The vast majority of today's perimenopausal women is due to the ageing of "baby boomers"³⁷. Their reproductive history is totally different from their forefathers in that many have chosen to procrastinate conceiving into their thirties and even forties, and many have chosen not to opt for children²⁰. The menopausal transition is a challenging period for many women, according to Matthews et al. (2014), but these women who are at peak of their professions are frequently trapped in the sandwich generation role, that is their responsibility towards their old age parents and children¹⁸. These ladies can't even think of losing the duty towards family and their potential to grow^{8, 11}. It is crucial that healthcare professionals thoroughly comprehend the diversity because of the distinctive features of this enormously large population of women who are approaching or already in the perimenopausal phase³⁸.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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