Menopause Induced Depression, Anxiety, Quality of Life, Lack of Sleep in Women: An Overview

Ragusudha A¹, Minnu Skaria¹*, Sambath Kumar R²

¹Department of Pharmacy Practice, J.K.K. Nattraja college of Pharmacy, Kumarapalayam – 638 183, Tamilnadu, India
²Department of Pharmaceutics, J.K.K. Nattraja college of Pharmacy, Kumarapalayam – 638 183, Tamilnadu, India

Abstract

Background: Menopause occurs between the ages of 40 and 50, and marks the end of a woman’s menstrual cycle. A period of time during which a woman does not have a monthly cycle for more than 12 months is known as post-menopause. Women may suffer challenges in their daily lives during this period, such as depression, anxiety, and sleep loss, all of which can have a negative impact on their quality of life. A decrease in hormone production, such as estrogen and progesterone, can cause menopause. To treat psychological difficulties in menopausal women, drugs such as vortioxetine and paroxetine, as well as selective serotonin reuptake inhibitors (SSRI) and anti-depressants, were advised.

Objective: To evaluate the effects in women how menopause inducing depression, anxiety, quality of life and lack of sleep.

Methodology: The recent studies related to the aim of the review were undertaken through a literature search to evaluate the effects in women how menopause inducing depression, anxiety, quality of life and lack of sleep.

Conclusion: Menopause, post-menopause, and peri-menopause are age-related causes in women who are going through the menstrual cycle. There is no need for medication during this time, but in severe cases, medications such as selective serotonin reuptake inhibitors (SSRI) and antidepressants should be administered and also for vaginal dryness and irritation Ospemifene is suggested. Many more clinical researches on the benefits of menopausal compilations will be needed in the future.

Keywords: Menopause, post- menopause, depression, estrogen, progesterone

INTRODUCTION:

Menopause is a life stage in which a woman experiences physical, psychological, and social changes, all of which have an impact on her quality of life. More than 25 million women worldwide experienced menopause in the 1990s, and this number is predicted to triple by 2020 and beyond³. Post-menopause is a period of time that begins about 12 months following a woman’s last menstrual period and is marked by a certain sex hormone profile³. By 2030, it is anticipated that 1.2 billion women will be postmenopausal, amounting to 47 million women every year³.  The reduction in female hormone production by the ovaries causes the transition from the reproductive to the non-reproductive stage. Although menopause is a physiologically related ailment, it is clear that the resulting physical and emotional changes have a significant impact on women’s lives.

Depression, anxiety, poor quality of life, and sleep deprivation are all common health problems among women in their forties and fifties. An Australian study indicated that women in the peri-menopausal and postmenopausal phases had a higher risk of more severe depressive symptoms than women in the premenopausal period without a history of depression³⁵. Depression causes inflammation and suppresses proper immunological responses. Depression affects a person’s mental and physical health³⁵,³⁶, as well as their quality of life (QoL)³²,³³. Depression is connected to a host of functional difficulties as well as significant decreases in a variety of QoL categories; including social functioning.³⁴ Sadness and anxiety are more common in women in their peri-menopausal and postmenopausal periods³. Depressive disorders are also on the rise at an alarming rate. Women have around double the lifetime risk of major depression as men, with about 5% of women experiencing major depression, and depression is expected to be the world’s second leading cause of disability by 2020.³⁵ Higher rates of depression and obesity, according to studies, lower quality of life and raise the risk of illness and early death¹⁶,¹⁷

Antidepressants’ efficacy on anxiety and depressive symptoms, as well as vasomotor and cognitive symptoms, especially Selective Serotonin Reuptake Inhibitors (SSRIs) and Serotonin and Norepinephrine Reuptake Inhibitors (SNRIs). In the menopausal phase, the development of depression and anxiety symptoms is typically 1.8 and 2.0 times higher than in the premenopausal period³⁸. Depression and anxiety symptoms affect 18 percent to 41.8 percent of perimenopausal and postmenopausal women, respectively and 7 percent to 25% of postmenopausal women.¹⁷-²² Estrogen’s neuromodulator of the serotonergic and noradrenergic systems as a source of
amine dysregulation. Cognitive symptoms, such as loss of attention and memory, are sometimes mentioned; estrogens. Estrogens modulate synaptic plasticity and neuroprotection and their chronic insufficiency lowers neuronal repair capacity, dendritic spine number and neurotransmitter synthesis, deposit and release.

MENOPAUSE:

Menopause is the period of a woman’s life when her menstrual cycle comes to an end. As a result, the reproductive hormone naturally declines. Menopause is a natural and biological process that is associated with the lack of a menstrual period for duration of 12 months. It can happen between the ages of 40 and 50. Approximately 1% of women reach menopause before the age of 40, whereas 5% of women reach menopause between the ages of 40 and 45. Perimenopausal period transition is the term for this procedure.

The perimenopausal period is the time around a menopause transition; it varies among different women it mostly begins before the four years of menopause. Only a few women start their perimenopausal transition 10 years before their menopause. This period is characterized by an irregular menstrual period this may skip a month and then return or may skip for several months and then the regular cycle starts for a few months. During this period the menstrual flow may also get heavier or even lighter.

Causes:
- Natural decline of reproductive hormone like estrogen and progesterone
- Hysterectomy- surgical procedure to remove uterus
- Primary ovary insufficiency
- Removal of the ovaries i.e. bilateral oophorectomy surgery
- Cancer chemotherapy and radiation therapy can also lead to an induced menopause- during this therapy this may cause early menopause because these treatments are toxic to ovaries.
- Premature ovarian condition is also characterized by an early occurrence of menopause before the age of 40; this may be related to some autoimmune disease or gene.
- Hypothyroidism can cause symptoms of menopause

Signs and symptoms:
Hot flashes or night sweats (36 – 87%), sleep problems (40-60%), Mood symptoms (15 – 78%), Weight gain (60 – 70%), Muscle and/or joint pain (48 – 72%), Palpitation(44-50%), Headache (32 – 71%), Memory impairment (41-44%), Genitourinary symptoms (25-30%), Sexual dysfunction (20 – 30%).

Complication:
Vasomotor symptoms, urogenital atrophy, osteoporosis, cardiovascular illnesses, breast and skin atrophy, cancer, decreased cognitive function and increased sexual issues are all effects of estrogen deficiency during menopause.

Diagnosis:
- History collection- Menopause is usually considered complete after 1 year of amenorrhea.
- FSH- follicle stimulating hormones: the FSH helps to control the menstrual cycle and the production of eggs by the ovaries. An elevated FSH blood level of 30 ml or higher combined with 12 consecutive months of no menstrual flow is usually a confirmation of menopause.
- TSH- Thyroid stimulating hormone.

Pathophysiology:

- Aging
  - Vit D deficiency
  - Decline in intestinal calcium absorption
  - Impaired renal synthesis of 1,25(OH), vit D3
  - Reduced physical activity
  - Sarcopenia
  - Loss of mechanical stimulation of osteocytes

- Menopausal estrogen decline
  - Osteoblasts
  - Increased RANKL
  - Decreased OPG
  - Pre-osteoclasts
  - Osteoclasts

- Secondary hyperparathyroidism
- Increased bone resorption
- Decreased bone formation
- Low bone mass and loss of bone architecture
- Low trauma fracture

*RANKL- Receptor activator for nuclear factor k B ligand  *OPG- Osteoprotegerin
Depression due to menopause

Antidepressants (ADs) are routinely recommended to women who suffer from depression and are successful in treating it. In recent decades, the prevalence of Alzheimer’s disease has quadrupled, with 22.8 percent of women aged 40–59 reporting current usage 28. Anti-inflammatory properties of ADs 29, 30 may help to reduce the impact of depression on breast cancer risk. However, the most generally used family of AD drugs, selective serotonin reuptake inhibitors (SSRIs), may raise circulating prolactin levels 31–33, which may increase the risk of breast cancer 34–36. Two prospective studies suggest a 50–75 percent increased risk of breast cancer related with Alzheimer’s disease or SSRIs usage in particular 37, 38, but other studies found no link 39–41.

Women are more prone to suffer from depression, which affects quality of life and can lead to suicide in some cases 42. An Australian study indicated that women in the peri-menopausal and postmenopausal stages had a higher risk of severe depressive symptoms than those in the premenopausal stage without a history of depression 43. Depressive disorders in postmenopausal women are characterized by sadness, tearfulness, irritability, emotional fragility, and poor attention 44.

Susceptibility to depression is linked to some women’s greater susceptibility to hormonal changes during this time. Co-morbidities, sleep issues, and stressful life events, all of which are unrelated to the menopausal transition, play a significant influence. Ethnicity, culture, tradition, prior history of depression, body mass index, degree of education, and marital status, on the other hand, are all linked to postmenopausal depression 44, 45. Longitudinal studies demonstrate that the risk of depressive symptoms increases with age in women. It rises from 1.30 to 1.55 times during the early stages of menopausal transition. Depression risk is 1.71–2.89 times higher in the postmenopausal period than in the premenopausal period 46, 19, and 47. As a result, the risk of developing Major Depressive Disorder (MDD) in the postmenopausal period increases by two to four times. This, however, only applies to women who have a history of mental health issues 19.

Quality of life affecting in menopause

Menopause has an impact on one’s quality of life. Menopause is a stage in a woman’s life that has physical, psychological, and social consequences that affect her quality of life. QoL in postmenopausal women is influenced by symptoms experienced during menopause and socio-demographic variables 48, 49. The principal consequences of menopause are linked to a lack of estrogen. Vasomotor symptoms, urogenital atrophy, osteoporosis, cardiovascular disease, cancer, impaired cognitive function, and sexual issues are among the key health concerns of postmenopausal women 50. Hormonal changes that begin during the menopausal transition cause physiological changes and a variety of additional symptoms.

As a result, women commonly experience hot flashes, insomnia, weight gain and bloating, mood swings, irregular menstruation, breast pain, depression, and headaches. These symptoms could be worrisome, especially since they occur at a time when women are expected to play key roles in society, the home, and the job 51. Women’s quality of life is deteriorated as a result of menopause-related illnesses 51, 52.

Anti-depressants used for menopause

Antidepressants are prescribed for women going through menopause. The efficacy of antidepressants, particularly selective serotonin reuptake inhibitors and serotonin and norepinephrine reuptake inhibitors, on anxiety and depressive symptoms, as well as vasomotor and cognitive symptoms, has been extensively established in the literature. Paroxetine, the first non-hormone medication for vasomotor symptoms approved by the Food and Drug Administration in 2013, has proven to be the most effective antidepressant for treating vasomotor and cognitive symptoms in postmenopausal transition. Vortioxetine was also licensed by the FDA in 2013 for the treatment of depressive disorders. Vortioxetine is a serotonin modulator and stimulant that has been shown to improve mood and cognitive symptoms. Vortioxetine appears to have a better tolerance profile than the other SSRIs, particularly for side effects that menopausal women find difficult to bear, such as libido loss, weight gain, and withdrawal symptoms.

Menopause affecting sleep:

In comparison to premenopausal years, sleep disturbances are more common during the menopausal transition 53. Vasomotor symptoms, night sweats, exhaustion, mood swings, irritability, headache, palpitation, and sleep disturbances are typically associated with estrogen and progesterone levels declining throughout menopause 54, 55. These symptoms might range from mild to severe and incapacitating. Women’s sleep difficulties are one of the most common health issues throughout menopause. Difficulty falling asleep, fractioned sleep, night-time awakening, inability to resume sleep, issues waking up, lethargy, and daytime sleepiness are among the disorders 56, 57.

CONCLUSION:

Menopause, post-menopause, and peri-menopause are age-related causes in women who are going through the menstrual cycle. These conditions can impair women’s daily lives, producing mental distress, anxiety, irritability, mood swings, lack of sleep, and poor quality of life. There is no need for medication during this time, but in severe cases, medications such as selective serotonin reuptake inhibitors (SSRI) and antidepressants should be administered and also for vaginal dryness and irritation Ospefime is suggested. The challenges of causing menopause in women will be addressed in this study. Many more clinical researches on the benefits of menopausal compilations will be needed in the future.

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CONFLICT OF INTEREST

There are no conflicts of interest to declare.

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