The Menopause: An Overview

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The menopause can be defined as the last day of a woman's final menstrual period.[9] The World Health Organization (WHO) defines natural menopause as at least 12 consecutive months of amenorrhea not due to physiological and pathological causes.[11] The term menopause is often used to describe the transition phase during which a woman moves from the fertile to post fertile stage of her life, however, this phase should be referred to as peri menopause or climacteric.[9] Menstrual periods usually become less frequent over months or years before they finally end. The frequency and severity of menstrual periods during this transition can be irregular and vary. They may become light or very heavy, occur every two or three weeks, may not occur for months at a time and sometimes they can just stop suddenly.

The menopause is a natural part of ageing that usually occurs between 45 and 55 years of age, as a woman's oestrogen levels decline.[10] Ovarian function declines with age. The onset of menopause features the decreasing production of oestradiol, as well as increasing levels of follicle-stimulating hormone (FSH).[11] Menopause symptoms usually last around four year after the last menstrual period, although some women experience symptoms for longer.

The average age for a woman to reach menopause is 52. When it occurs under the age of 45 years, it is called premature menopause. It is estimated that premature menopause affects 1% of women under the age of 40 and 0.1% of women under the age of 30.[1] Sometimes menopause is induced by invasive treatments, surgery including oophorectomy and some breast cancer treatments, chemotherapy and radiotherapy. It can also be induced by underlying conditions such as Addison's disease.[10] The menopause transition is experienced by 1.5 million women globally each year and often involves vasomotor symptoms, vaginal dryness, decreased libido, insomnia, fatigue, mood changes, lack of concentration, increased urinary tract infections, reduced bone and muscle mass and joint pain.[2, 10]

Vasomotor symptoms affect most women during the menopausal transition, although the severity, frequency and duration varies. Hot flushes are reported by up to 85% of menopausal women.[3] Hot flushes and night sweats are present in as many as 55% of women even before the onset of menstrual irregularity that define entry into the menopausal transition. Their incidence and severity increases as women traverse the menopause, peaking in the late transition and tapering off over a number of years.[4]

The exact cause of hot flushes and night sweats is uncertain, but is thought to be due to the resetting and narrowing of the thermoregulatory system in association with fluctuations in or loss of oestrogen production.[2, 7] The average duration of hot flushes occurring in women is 5.2 years, however, symptoms of lesser intensity may be present for longer.[5] Approximately 25% of women continue to have hot flushes up to 5 or more years after menopause. A meta analysis of 35,445 women taken from 10 different studies confirmed a 4-year duration of hot

flushes, with the most problematic symptoms beginning one year before the final menstrual period and declining thereafter.[6]

Multiple population and community-based studies confirm that 27% to 60% of women report moderate to severe symptoms of vaginal dryness or dyspareunia in association with menopause.[8] In addition to vaginal atrophy, narrowing and shortening of the vagina, uterine prolapse can also occur, leading to high rates of dyspareunia. The urinary tract contains oestrogen receptors in the urethra and bladder, and as the loss of oestrogen becomes evident, women may experience increased urinary tract infections. Unlike vasomotor symptoms, vulvovaginal atrophy does not improve over time without treatment.[2, 8]

The menopause increases the risk of developing osteoporosis due to the lower levels of oestrogen in the body.[10] During menopausal transition, the drop in oestrogen levels leads to more bone resorption than formation, resulting in bone loss. Osteoporosis is the most prevalent disease in menopausal women, and is strongly associated with a low quality of life.[11] The prevalence of osteoporosis and related fractures are higher in postmenopausal women than in older men since oestrogen plays a key role in maintaining bone health. The fracture risk is higher in women than in men. The lifetime risk of fracture for a 60-year-old woman is close to 44%, nearly double the risk for a man of the same age, which is 25%.[11]

Since low oestrogen levels are the main cause of postmenopausal osteoporosis, hormone replacement therapy is often considered as a first line choice for prevention of osteoporosis and its effectiveness has been demonstrated by various studies. Hormone replacement therapy is recommended for women who are less than 60 years old and/or less than 10 years post-menopausal. However, for those who are over the age of 60 and/or greater than 10 years postmenopausal, hormone replacement therapy is not recommended and other options should be considered.[11]

Diagnosis and Treatments

There is no definitive test to diagnose the menopause, although measuring the level of follicle-stimulating hormone (FSH) in the blood can help confirm a diagnosis. FSH rises in women who are menopausal, however, a high level of FSH alone is not enough to make a diagnosis. A diagnosis of menopause can usually be confirmed in general practice by considering the woman's age, whether or not they are still having periods and by asking questions about symptoms through a thorough history which should also enquire about incontinence and sexual dysfunction.[1, 9] Blood pressure and BMI measurement and relevant blood tests should be included in the consultation and optional breast and pelvic examination, cervical smear test and mammography organised if required.[9] The opportunity should also be taken to counsel and advise the woman with regard to general health screening, diet and exercise, bone health and contraception if required.[9]

Only 1 in 10 women seek medical advice when going through the menopause and many do not require any treatment. If menopausal symptoms are discomfiting or causing concern,

there are treatments that can help. Treatment options include: Hormone replacement therapy (HRT), tibolone which is similar to HRT, clonidine, vaginal lubricants and antidepressants. The type of treatment recommended depends on the symptoms, medical history, risks or side effects associated with the various treatments and the woman's own preferences.[1] HRT and tibolone do not provide contraceptive protection, and although fertility decreases during the menopause, it may still be possible to conceive. Therefore, continued use of contraception is recommended for one year after the woman's last period if over the age of 50 and for two years after the last period if under 50 years of age.[1]

HRT

Hormone replacement therapy (HRT) involves taking female hormones to restore the decline in the body's levels during menopause. NICE (2015) guidelines state that HRT is effective and should be offered to women after discussing the risks and benefits. There are two main types of HRT.[12] Combined HRT, contains oestrogen and progesterone and can be taken by women who still have a womb. Oestrogen only HRT is available for women who have had a hysterectomy. HRT is available as tablets, transdermal patches, gels, intravaginal pessary or ring, nasal spray and implants. It is very effective at relieving menopausal symptoms, especially hot flushes and night sweats, but is associated with a number of side effects including breast tenderness, headaches and vaginal bleeding and also associated with an increased risk of blood clots and breast cancer in some women.[10]

HRT has been the subject of much controversy and received negative press over the past two decades, leaving many women and some clinicians concerned about its use. Concerns about HRT are based on three main studies which took place between 1998 and 2003. These three studies were the Heart Estrogen/Progestin Replacement Study (1998) USA; the Women's Health Initiative study (2002) USA and the Million Women Study (2003) UK.[9] The negative reports about HRT are largely due to the Women's Health Initiative (WHI) study 2002, which has since been shown to be flawed. The WHI study mainly included older women that were given types of HRT that are no longer prescribed today. Women included in the study were aged from 50-79 (average age 63 years) with only 3.5 % of participants in the 50-54 year age group. Women with severe symptoms were excluded and women with previous serious CVD were included in the study. When WHI published the study they documented that 'a small increased RR in Breast CA (1.26) was observed which did not reach statistical significance', however, the following year a JAMA editorial reported the WHI study had demonstrated that breast cancer rates were "markedly increased" in the HRT group. This continues to lead to controversy and negative press regarding HRT today.[9]

Most experts agree that if HRT is used on a short-term basis for no more than five years in women under the age of 60 years, the benefits outweigh the risks. HRT can help reduce a woman's risk of developing osteoporosis as well as cancer of the colon and rectum. [14] HRT does not increase the risk of heart disease in women under 60. Current data shows that HRT use before the age of 50 years carries no additional risk of breast cancer, while its use between the ages of 50-54 is linked to a small additional risk. HRT use in women over 50 is linked to an increased breast cancer risk with data showing 30 cases/10,000 in women who

never used it, compared to 38 cases/10,000 women who used it.[9, 12] Women with known CVD, angina and MI should avoid HRT as should women over 10 years post the menopause. Data also shows that women less than 10 years from the menopause or under 60 years of age may derive some cardio-protection from HRT use but further studies need to be carried out to confirm this.[9, 12] Observational data also suggest that transdermal HRT may be less thrombogenic than oral preparations.[12]

In the first two years after commencing oral HRT the risk of developing a DVT is slightly raised. HRT should be avoided in women with a current or recent past history of DVT and caution taken with women who had VTE around pregnancy or while on the COCP. Women with a strong family history of or multiple risk factors for DVT would benefit from haematological review before treatment and may be safer to use transdermal products.[9]

Women taking HRT, must be regularly reviewed and monitored in general practice. A follow up review should take place 3 months after commencing HRT and at least once a year after that. Regular reviews help ensure that symptoms are under control, side effects are checked for and weight and blood pressure are monitored. The type and effectiveness of HRT used will be reviewed and changes made if necessary and discussion will also take place about when and how the treatment will eventually be discontinued. [10]

Alternative Therapies

Alternative therapies for hot flushes and sweats include alpha agonists such as clonidine HCl 50-75 micrograms BD. Side effects can include insomnia, dry mouth and drowsiness. Other alternative therapies for hot flushes and sweats include COC the combined oral/TD/TV contraception; Selective Serotonin Reuptake Inhibitors and Gabapentin. NICE guidelines suggest that 900mg daily of Gabapentin has been shown to reduce vasomotor symptoms by approximately 50%. Gabapentin may be of use in women with breast cancer.[9] Cognitive Behavioural Therapy (CBT) has been found beneficial over placebo in several aspects of peri menopausal management including VMS relief. Mindful meditation practice is also recommended by NICE to help with low mood and anxiety.[9]

Oestrogen applied as a pessary, cream or vaginal ring directly into the vagina can be prescribed for vaginal pain, itch or dryness. This can be safely used alongside HRT, but may need to be used indefinitely as symptoms are likely to return when treatment stops. Over the counter vaginal moisturisers or lubricants can be used in addition to or instead of vaginal oestrogen. [10]

Some women experience mood swings, low mood and anxiety during the menopause. Self help measures such as rest, taking regular exercise and relaxation activities may be beneficial. Selective Serotonin Reuptake Inhibitors may be used for the treatment of low mood or depression associated with menopause.[10]

Loss of libido is a common symptom during and post menopause. HRT can help, but if not effective a testosterone supplement may be considered. Testosterone, the male sex hormone can help restore sex drive. While it is not currently licenced for use in women, it

can be prescribed by a doctor. Possible side effects of testosterone therapy include acne and facial hair.[10]

Diet, Physical Activity and Bone health

A healthy well balanced diet should be encouraged including oily fish, low GI fruits and vegetables, whole grains, soya and legumes. Excess red meat and simple sugars should be avoided. Vitamin D and calcium is important for bone health and an intake of at least 400mIU (10 mgs) /day of vitamin D as a supplement should be considered and Calcium 700-1200mg daily, ideally via diet.[9] Regular physical activity is important for overall physical and psychological health. It improves the cardiovascular system and helps decrease LDLs and increase HDLs. It has a beneficial effect on bone and muscle mass and can help reduce the risk of falling by improving strength, flexibility and balance.[9]

Taking HRT can help prevent osteoporosis, although this effect does not last once treatment is stopped. Regular weight bearing and resistance exercises and a diet rich in calcium and vitamin D (sunlight is the best source of Vitamin D production in the body) helps to strengthen bones. Stopping smoking and cutting down on alcohol if applicable is also good for maintaining general and good bone health.[9, 10]

Complementary and alternative therapies such as herbal remedies and bioidentical hormones are generally not recommended for menopause symptoms, as it is unclear how safe or effective they are and some may interact with other medications and cause side effects.[10]

With increased life-expectancy, women now spend at least a third of their lives post menopausal. According to CSO statistics, almost 333,000 women in Ireland are potentially peri-menopausal at any one time and 8 out of 10 women experience symptoms leading up to menopause.[13] Once a taboo subject and rarely acknowledged in Irish society, it is reassuring to see the range of care and menopausal treatments available in general practice and the growth of dedicated menopause clinics to help women manage their symptoms through the transition phase of what can be a very difficult time in their lives.

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