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EDITORIAL

Menopause age and related challenges; Early and Late Menopause on Future diseases

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ABSTRACT

Most studies on menopause have focused on disorders related to sex hormone deficiency in older women. Few studies have focused on the relationship between the occurrence of diseases and the age of menopause. There is evidence that reports a higher rate of disease in women with early or late menopause.

Keywords: menopause; women; sex hormone

1. Introduction

According to World Health Organization (WHO) report, menopause is defined as the permanent cessation of menstrual cycles in women due to the loss of ovarian activity^[1].

Menopause most begins between the ages of 45 to 55 years. However, 5% of women experience menopause early between the ages of 40 and 45 years^[2], and also 1% of women will go through menopause prematurely, before the age of $40^{[3]}$.

Age of menopause is known as an important factor in women's health status and risk of future diseases^[4]. Women experience onset of menopause in different ages worldwide. The mean age of menopause in industrialized countries is between 50 and 52 years, with an average age of 51 years^[5]. In developing countries, the age of menopause is different. The mean age of menopause in Iranian women is around 48 years^[6]. Women in India, experience menopause at early ages. The average age of menopause in Indian woman is 46.2 years^[7].

Age at menopause is found to be influenced by multiple factors such as body mass index (BMI), diet, ethnicity, socio-economic background, culture, exercise, smoking, and medical health issues^[8,9]. Gold et al.^[10] have reported that factors such as nonemployment, lower education, current smoking, being separated/divorced/widowed, and history of cardiovascular disease were associated with menopause at earlier age.

Protective effects of estrogen hormone on women's health has been documented in recent years.

In a US study, women who experienced natural menopause before 40 years of age had a higher mortality rate than women whose menopause occurred over age 50 years. Of note, women with natural menopause between the ages of 40 and 50 years had no increased mortality rates compared to women who experienced

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menopause at an older age^[11]. Accumulating evidence suggests that early nonsurgical menopause has been associated with increased risk of type 2 diabetes, premature decline in cognitive function, and decreased life expectancy^[12–14].

Over the past decades, the average age at non-surgical menopause increased by 1.5 years and also the mean reproductive life span increased by 2.1 years^[15]. The woman at the ages of 55 or older who hasn't experienced menopause, it is considered late-onset menopause.

Factors such as obesity, current employment, and alcohol consumption were associated with later menopause in women^[16]. Little is known about the effects of late menopause on women's life. Although late menopause has been associated with an increased risk of hormone dependent cancers, few studies have assessed the associations between menopause age and risk of multiple cancers. Data suggest that late menopause has been associated with an increased risk of endometrial, ovarian and breast cancers^[17]. The incidence of ER+ breast cancer has been increased with late menopause in women^[18].

Some studies have suggested the protective effects of menopause on the regression of myoma size^[19]. Menopause has been found to reduce the symptoms of uterine fibroids^[20]. Although the risk of mortality from ovarian or uterine cancer is increased by 5%, collectively, the net effect of menopause at later age is a longer lifespan. Interestingly, age-adjusted mortality is decreased 2% with every year of age increase at menopause^[21].

2. Conclusion

There are some negative health consequences linked to early menopause, including higher risk of type 2 diabetes, cardiovascular disease, osteoporosis, Alzheimer's disease, and cognitive dysfunction. The incidence of cancer is increased in late menopause. Normal age of menopause has been associated with lower rate of future diseases. Women are recommended to have regular health check-up with medical doctors in early and late menopause to prevent future diseases.

Conflict of interest

The author declares no conflict of interest.

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