

## Concerns, controversies and care of elderly women\*

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**P**hilippines Statistics show that of the total population, the number of senior citizens had grown from 4% in 2000, 7% in 2007 and 8.2% in 2018. In 2050, the older population is projected to be 15.3% of the total population. This elderly population is expected to effect a decline in the labor force, lower fertility and increasing age and number of dependency.

The life expectancy of the Filipino female is 72.6 years, and their average of menopause is 47-48 years. As life expectancy increases, the Filipina will spend more than 1/3 of their lives in the postmenopausal years. Among women who had surgical menopause, there is a 1.51-fold increased risk of the metabolic syndrome compared to naturally menopausal women.

Beginning the 6<sup>th</sup> decade of life, many chronic diseases will begin to emerge, which will affect both the quality and quantity of a woman's life.

The onset of menopause heralds an opportunity for prevention strategies to improve the quality of life and enhance longevity of women. There is an important window of about 10 years from the time of menopause to make a significant impact on prevention.

The consequences of early estrogen deficiency are hot flushes, sweating, insomnia, menstrual irregularity and psychological complaints. Intermediate years follow with urogenital complaints (GMS), skin atrophy and urinary urge-stress incontinence. Late complications are osteoporosis, atherosclerosis with coronary heart and cardiovascular disease and later, dementia of the Alzheimer type.

The major diseases of concern are cardiovascular disease, diabetes mellitus, obesity, metabolic syndrome (MetS), osteoarthritis and osteoporosis, depression, cognitive decline and cancer.

**CARDIOVASCULAR DISEASE (CVD)** is the principal cause of morbidity and mortality in postmenopausal women. Dyslipidemia is a major cause of CVD. In a metaanalysis of 31 studies, menopause is associated with dyslipidemia, especially in triglycerides and LDL cholesterol.

Hypertension is major risk factor for CVD morbidity and mortality in postmenopausal women. There is a 60% prevalence of hypertension in women older than 65 years. The same metaanalysis showed a 6.22 mm Hg and 3.54 mm Hg rise in systolic BP and diastolic BP, respectively. Central obesity occurs 3-5x more often in postmenopausal than in premenopausal women. Decrease in estrogen is a possible causative factor for these adverse changes.

**MENOPAUSE** is the independent risk factor for the MetS. The prevalence of the MetS increases steeply by 30-70% after menopause, compared to 14-45% in women of reproductive age. The higher prevalence of the MetS in postmenopausal women is more likely triggered by changes during the menopausal transition than by the postmenopausal state.

Insulin resistance is a critical component of the MetS and has an additive effect of up to 6-7 fold increased risk of type 2 diabetes. Fasting blood glucose and fasting insulin levels are increased by 4.64 g/d and 20.88 mg/dl respectively in postmenopausal compared to premenopausal women.

An individualized approach is recommended based on CVD risks. Lifestyle intervention such as diet and exercise constitutes the cornerstone for the prevention and management of DM. The choice of antidiabetic medications is based on patients' profile, and on the metabolic, cardiovascular and bone effects of the medications.

Menopausal hormone therapy (MHT) has a favorable effect on glucose homeostasis in women with or without diabetes mellitus (DM). MHT reduces the risk of the components of the MetS. Estrogen with or without progestins has beneficial effects on the MetS. Natural (micronized) progesterone has less adverse effects on lipids compared to synthetic progestins. Natural progesterone, dydrogesterone or transdermal norethisterone has neutral effects on glucose metabolism. For women with T2DM and coexistent CVD risk factors, such as obesity, transdermal 17-beta estradiol is recommended. MHT may delay new onset DM.

Estrogen therapy maybe cardioprotective if started around the time of menopause or in women below 60 years of age and less than 10 years from onset of menopause

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(window of opportunity or “timing hypothesis”) and maybe harmful if started more than 10 years after onset of menopause. This causes a reduction of all-cause mortality of 0.70(95% CI 0.52-0.95) and of cardiovascular mortality by 0.52 (CI 0.29-0.96).

**OSTEOPOROSIS** is a “silent” progressive weakening of bone strength due to decreasing bone mass and bone quality and is associated with significantly elevated risk of fractures. Worldwide, osteoporotic fractures occur in one out of 3 women more than 50 years old. International recommendations for prevention of vertebral and non-vertebral fractures include lifestyle interventions such as diet and weight-bearing, muscle-strengthening exercises and the use of MHT, either with estrogen alone (for women without a uterus), estrogen plus progesterone or Tibolone. Calcium 1,000-1200 mg/d plus Vit. D 400-800 U/d. is also advised. Fall prevention strategies, cessation of smoking and avoidance of excessive alcohol intake are also advised.

In postmenopausal women at high risk of fractures, preventive initial treatment with bicarbonates is advised. For biphosphnate users, fracture risk should be reassessed after 3-5 years of use. Temporary discontinuation of bisphosphonates for up to 5 years (“bisphosphonate holiday”) is considered for those who are at low to moderate risk of fractures. For postmenopausal women at high risk for osteoporotic fractures, denosumab is advised.

**Anxiety, depression and sleep problems are also identified in the elderly.** Disordered sleep in mid to late life has been associated with increased risk of cognitive impairment among elderly women. Recognizing disordered sleep is a modifiable risk factor for later cognitive problems.

Vulnerability for depression is associated with estrogen decline. Cross-sectional, longitudinal and cohort studies documented a 1.5-4-fold increased risk of depression throughout the menopausal transition and early postmenopausal years.

Anti-depressants are the first-line treatment of depression during mid-life years, particularly if with multiple depressive episodes that are non-hormonally related.

Estrogen has mood-enhancing or anti-depressant properties due to its effect on brain-derived neurotrophic factor. Most studies suggest that estrogen might augment clinical response to anti-depressants, including selective serotonin reuptake inhibitors (SSRI) and SNRIs.

Behavioral-based interventions are part of therapy for depression.

**Dementia of the Alzheimer type** is associated with endocrine events. Natural menopause at age less than 47.4 years is associated with 19% elevated risk of dementia. Reproductive life spans less than 34.4 years is linked with a 20% elevated dementia risk. The lifetime risk of developing dementia at age 65 is more than 55% greater for women compared to men. There is evidence that sex-specific biological factors explain this increased risk among elderly women.

Epidemiologic findings support the possible neuroprotective effect of estrogen depending on age at initiation of therapy. MHT initiated during midlife is associated with reduced risk of Alzheimer’s disease and dementia, but increase risk of dementia when initiated and used after midlife.

**Prevention strategies** include clinical history, physical examination, recognition of risk markers, screening for cancer and in the future, molecular and genetic markers. Lifestyle interventions (mentioned earlier), with a 7-8 hour sleep are recommended for optimal health. Statins and aspirin do not reduce coronary heart disease or overall mortality in women for primary prevention. Statins increase the risk of diabetes especially in women. As part of a comprehensive strategy to prevent chronic diseases after menopause, MHT maybe considered as part of the preventive armamentarium. ■

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