

INTRODUCTION

The menopause, defined as the ending of the monthly reproductive cycle, is the outward manifestation of ovarian failure. Exhaustion of the primordial follicles leads to a 10- fold decline in circulating estradiol to a median of about 50 -80 pmol/l. Oestrogens central roles in the normal function of the cardiovascular, skeletal, central nervous and immune system (*Beardworthy et al, 2000*).

Menopause occurs naturally between the age 40-55 years, with an average age of 51 years. However, it can occur prematurely before the age of 41 years, or due to iatrogenic causes before that age.

Usually, this natural phase in women's life does not need medical intervention. However, some women experience certain problems such as hot flushes in the early menopausal period, while in late menopause they experience serious long-term problems such as osteoporosis, mood changes (depression, insomnia and fatigue), cardiovascular complications (hypertension and coronary heart disease), as well as genitourinary atrophy (*Whitehead and McAuliffe, 2005*).

Until recently, hormone replacement therapy (HRT) was quite straightforward as oestrogen prevented the symptoms of the climacteric, particularly flushes, sweats, vaginal dryness, depression, loss of energy and loss of libido. Cyclical or continuous progestogen although possibly producing

premenstrual syndrome type side-effects in women who were progesterone-intolerance protected the endometrium. There was also long term benefits of protection from osteoporosis , reduction of colon cancer and both primary and secondary prevention of heart attacks (*Studd,2005*).

There is a possible slight increase in breast cancer among women on HRT, but as virtually all studies showed an increased survival in these women , it was easy to believe that this apparent increase was an artifact due to increase surveillance in women receiving HRT or a problem of precise pathological diagnosis in the grey area between ductal in situ or invasive cancer (*Studd,2005*) .

Recent adverse publicity however, casted shadows on oestrogen for menopausal symptoms and caused considerable alarm in the female population in, media, and even among gynaecologists due to possible serious side effects of HRT, as those quoted by Studd et al (2005) from HERS study, (*Hulley et al, 2002*), Women's Health initiative (WHI) study (2002), and the million women (MWS) study (*Beral, 2003*). HERS study first challenged the optimism that oestrogens exerted a protective effect in women with established coronary artery disease. WHI and MWS have caused enormous alarm by reporting that heart attacks , strokes, venous thrombo-embolism and breast cancer are more common in women who are receiving treatment and that there was no impairment of life quality (*Hays et al, 2003*).

As a consequence of these, and other reports, there has been a 50% reduction of HRT taking in the USA and a significant, but rather less in Europe (*Studd, 2005*).

It has long been a goal of developmental pharmacology to discover, as to synthesis, an oestrogen replacement which will restore oestrogen activity to the systems which require it , while not returning the women's menstrual cycle with breast changes, uterine cycling and the symptomatic and pathological consequences' which such cycle may bring (*Beardwarth et al, ,2000*).

Non hormonal therapy was found to be effective in preventing and treating hot flushes, osteoporosis and cardiovascular disease. Therefore, it is important, for women seeking medical treatment for their menopausal problems, to be informed and to understand the possible benefits of non-hormonal treatment (*Christopher, 2002*) .

There are many non-hormonal therapies including phytoestrogens, biphosphonate, selective estrogen receptors modulators, and tibolone which showed great benefits in most postmenopausal problems, as hot flushes and osteoprosis (*Touillaud et al.,2007*).

Vitamines especially vitamin D, minerals especially calcium, and fluoride ions, salmon calcitonin, and recombinant parathyroid hormones also have positive beneficial effects on osteoporosis (*Denes et al.,2007*).

Centerally active agent as venlafaxine, herbal remedies as red clover and acupuncture gave good results in controlling and preventing hot flushes (*Powel, 2004*).

Life style modifications and physical therapy also give good results in controlling hot flushes and in preventing osteoprosis (*Taya et al., 2004*).

Because of the growing concerns about the possible dangers of the use of convential HRT, many women are now asking for, and prefer to use non-hormonal therapy for the management of their postmenopausal problems (*Vincent et al .,2002*).

AIM OF THE WORK

This work aim is to review non hormonal treatment of postmenopausal syndrome including; its options, methods of application benefits, side effects and new published data about its management.