Menopause and the post meopausal woman

It is the condition of the 21st century due to increase life expectancy reaching now 82 years in uk.so the majority of woman can therefore expect to live over a third of their lives in a menopausal state.

Menopause physiology:

MENOS(MONTHS)---PAUSIS(CESSATION)(LAST PERIOD)

The diagnosis can only be made retrospectively after a minimum of 1 year .it start from the age of 45 -55 .the average age is 50 but the physiological

changes which result in the final menstrual period (fmp)can start 10 years earlier.hormonal changes continue long after fmp.this episode of dynamic neuroendocrine changes is(climacteric)

Climb to the menopause).

The declining oocyte:

New born infants has a millions of oocyte these oocytes shrinks throughout life leaving only few thousand oocyte as the female `enter forties and few or none in the postmenopause. It is the depletion of oocytes which eventually leads to the cessation of menstruation,the cardinal sign of menopause.

There are 2 landmarks in the ovarian failure process first there is a marked decline in fertility with no cycle dysfunction,and second cyclical changes become noticable as the follicular phase become shorter and luteal phase dysfunction occurs.

HORMONAL CHANGES

Initially the ovarian failure is compensated by the rise in gonadotophins,in some woman from the age of 30.during this time there is decrease in the number of gonadotrophins receptors in the perimenopausal ovaries and inhibin production from granulosa cells falls leading to reduced inhibin:FSH Ratio.

Critical decline in the oocyte pool leading to further rises in FSH (10 to 20).LH rises only 3 times the normal due to shorter half –life.

--oesrogen levels drop due to a reduction in follicle no.

--progestrone --- permenant cessation

--adrenal and ovarian androgen levels start to decline from as early as 20 years of age.some testosterone continues to be produced by ovarian theca cells.

Main postmenopausal oestrogen is oestrone which is produced mainly by in the peripheral adipose tissue and the postmenopausal ovaries by aromatization of adrenal androstenedione.

Somatotrophic axis becomes less active with aging leading to insuline resistance and increase obesity (change body shape from female gynaecoid shape to male android shape).

The M.C

Anovulatory cycles become common ---- continuous estrogen ------endometrial proliferation -----hyperplasia---carcinoma.as a result M.c can become heavy,prolonged,unpredictable .

Consequences of menopause:

-immediate

-intermediate

-long

IMMEDIATE:

Hot flushes and sweats:commonest menopausal symptoms.arise due to loss of oestogenic induced opoid activity in the hypothalamus leading to thermodysregulation .it is thought that serotonin and noradrenaline mediate this activity. Obese female are protected from these symptoms due to large amount of oestrone.

---insomnia,anxiety,memmory loss,depression mainly due to serotonin loss.

Decrease libido.

INTERMEDIATE

Generalized atrophy due to loss of collagen due to oestrogen deficiency .in the genital tract this is manifested by dyspareunia,vaginal bleeding,loss of vaginal fornix.

--atrophy of lower urinary tract ---- dysuria,urgency,frequency(uretheral syndrome)

--generalized aches and pains

LONG TERM

Osteoprosis,cardiovascular,CNS

Decreased in bone matrix---increase risk of fracture.

CVS---increase cholestrol ,Tgand LDL.decrease HDL------rise CV DISEASE.

CNS----ALZEHEIMER.

pt.assessment:

--Hx of vasomotor symptoms

--prolonged amenorrhea

--rise FSH more than 15 IU per L regarded as climecteric .if more than 30 it is Dxitic.

--full clinical assessment.

--breast and pelvic exam.

--endometrial biopsy if had PMB,or irregular bleeding.

--assessment of BMD by DEXA scan.

Therapeutic options:

HRT(HORMONAL REPLACEMENT THERAPY)

OESTROGEN------oral(0.3-0.625)

-------transdermal oestradiol

-------implanted =

-------oestraddiol silicon ring

---------oestradiol cream local

Lowest effective dose should be given to decrease the risk of breast ca, heart disease,orDVT. In non hysterctomized pt. progesterone shouid be added in continuous or sequential form.

CONTRAINDICATIONS TO HRT:

Coronary heart disease

-stroke

-DVT

-endometriosis

-pt.with past hx of endometrial ca.

-breast ca

-undx vaginal bleeding

-severe liver disease

-severe uncontrolled hypertention

HRT ALTERNATIVE:

Indicated in female not wish to use HRT or if there is contraindications.

life style modification—decrease alcohol ,regular exercise

-vaginal moisturizer

-clonidine ---treat vasomotor symtoms

(-selective serotonine reuptake inhibitors(SSRIs)

Selective nor adrenaline reuptake

inhibitors(SNRIS).fluoxetine (SSRIs),venalafaxine(SNRIS) used to treat vasomotor symtoms.

--phytoestrogen ,vit.,

-BISPHOSPHONATE and SERM(SELECTIVE OESTROGEN REC. MODULATOR(RALOXIFENE).