



# MENOPAUSE

Dr N Muhaidat



## Menopause

- Permanent cessation of menstruation resulting from the loss of ovarian follicular activity
- Recognized to have occurred after 12 consecutive months of amenorrhea, for which there is no other obvious pathological or physiological cause
- Occurs with the final menstrual period (FMP) which is known with certainty only in retrospect a year or more after the event.

## **Perimenopause**

- The period immediately prior to the menopause (when the endocrinological, biological, and clinical features of approaching menopause commence) and the first year after menopause.

## **Menopausal transition**

- Period of time before the FMP when variability in the menstrual cycle is usually increased.

## **Climacteric**

- The phase in the aging of women marking the transition from the reproductive phase to the non-reproductive state. This phase incorporates the perimenopause.
- When the climacteric is associated with symptomatology, it may be termed the "climacteric syndrome".

## **Postmenopause**

- The period dating from the FMP, regardless of whether the menopause was induced or spontaneous.

## **Premature menopause**

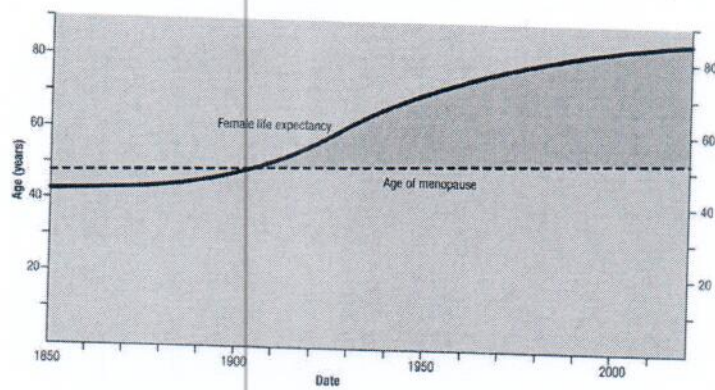
- ideally, premature menopause should be defined as menopause that occurs at an age less than two standard deviations below the mean established for the reference population.
- In practice, in the absence of reliable estimates of the distribution of age at natural menopause in populations in developing countries, the age of 40 years is frequently used as an arbitrary cut-off point, below which menopause is said to be premature.

## **Induced menopause**

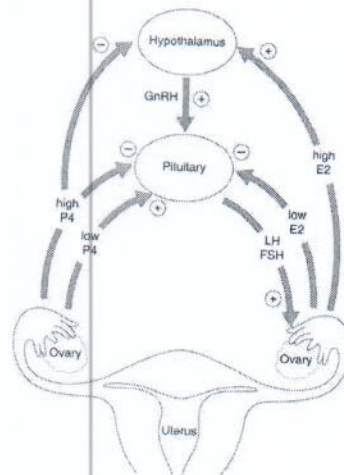
- the cessation of menstruation which follows either surgical removal of both ovaries (with or without hysterectomy) or iatrogenic ablation of ovarian function (e.g. by chemotherapy or radiation).



## Menopause and Life Expectancy



## HPO axis



## Pathophysiology

- There is a steady decline in the number of oocytes over the course of a woman's reproductive years
- As the ovary ages the remaining follicles are those least sensitive to gonadotrophins, and are less likely to mature, and ovarian function gradually fails.
- Cycles become anovulatory and irregular
- Fertility declines

## Pathophysiology

- Fall in ovarian inhibin production
- Fall in ovarian oestradiol levels

### Short Term Effects (0-5y)

- Vasomotor symptoms
- Psychological symptoms
- Loss of concentration and poor memory
- Joint aches and pains
- Dry and itchy skins
- Hair changes
- Decreased libido

### Intermediate Effects (3-10y)

- Vaginal dryness
- Dyspareunia
- Sensory urgency
- Recurrent UTIs
- Urogenital prolapse

## Long Term (>10y)

- Osteoporosis
- Cardiovascular disease
- Dementia

## History

- Symptoms
- Effect on quality of life
- Previous treatments and side effects
- Risk factors for cardiovascular disease, osteoporosis, breast and gynaecological cancers, thrombosis.
- Family history



## Physical Examination

- Breast
- Abdomen
- PV
- Cervical smear
- Symptom guided

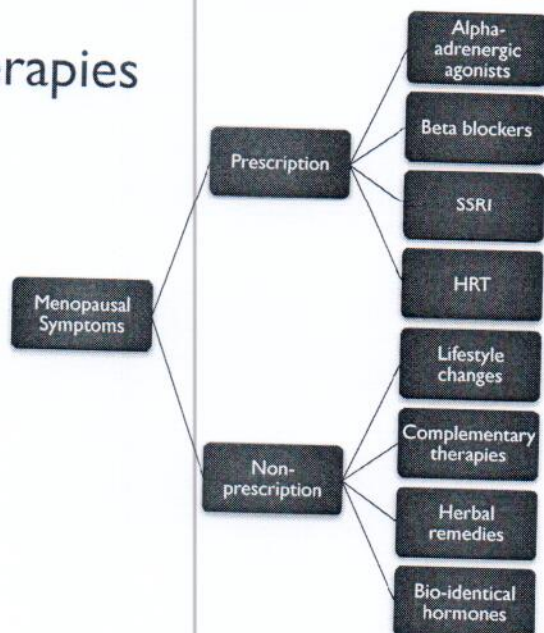
## Investigations

- FSH > 30 IU/L, preferably 2 measurements, 2 weeks to 3 months apart.
- Breast screening and mammography
- Endometrial assessment of unscheduled bleeding
- Cardiovascular disease risk assessment
- Skeletal assessment

## Management

- May not need any treatment
- HRT and alternatives
- Long term preventative strategies

## Therapies



## Lifestyle advice

- Smoking cessation
- Diet
- Exercise

## HRT

### Oestrogen

ALONE  
Only for  
hysterectomised  
women

COMBINED  
(PROG)

### Routes:

- Oral
- Topical (cream, gel, patches)
- Subcutaneous implants

+/- Testosterone

## Regimens

- Cyclical:  
Mimicks the natural cycle  
Perimenopausal
- Continuous:  
No-bleed treatment  
Post-menopausal

## Benefits

- Vasomotor symptoms
  - Urogenital symptoms
  - Osteoporosis
  - Colon cancer
- } Not indications  
for treatment



## Risks

- Breast cancer
- VTE
- Endometrial cancer

## Controversies

- Cardiovascular disease
- Alzheimer's
- Ovarian cancer

## Absolute Contraindications

- Pregnancy
- Breast cancer
- Endometrial cancer
- Active liver disease
- Uncontrolled hypertension
- Known VTE
- Known thrombophilia
- Otosclerosis

## Relative Contraindications

- Uninvestigated abnormal bleeding
- Large fibroids
- Past history of benign breast disease
- Family history of VTE
- Chronic stable liver disease
- Migraine with aura

## Duration of treatment

- Minimum effective dose for shortest duration
- Average 2-3 years
- In premature menopause at least till age of 50

**END**