PRIMARY OVARIAN INSUFFICIENCY

GLORIA RICHARD-DAVIS, MD, FACOG
UNIVERSITY OF ARKANSAS MEDICAL SCIENCES (UAMS)
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY
DIVISION OF REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY

Primary ovarian insufficiency is the depletion or dysfunction of ovarian follicles with cessation of menses before age 40 years. Previously referred to as premature menopause or primary ovarian failure. “Primary ovarian insufficiency” is the preferred term by the National Institutes of Health because ovarian function is intermittent or unpredictable in many cases.

1% of women under 40 and 0.1% under 30.

CAUSES OF POI

• Idiopathic 25%
• Iatrogenic 37%
• Autoimmune 19%
• Genetics 19%

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Diagnosis of primary ovarian insufficiency

- Menstrual irregularity for at least 3 consecutive months
- Follicle-stimulating hormone and estradiol levels (two random tests at least 1 month apart)
- Pregnancy test, prolactin and thyroid function test
- AMH

If diagnosis is confirmed:

- Karyotype
- Early AM cortisol and androgen levels
- FMRI permutation
- Autoantibodies – adrenal, ovarian, thyroid
  - 21-hydroxylase (CYP21) by immunoprecipitation
  - Indirect immunofluorescence
- Pelvic ultrasonography


LONG-TERM SEQUELAE

- Emotional/psychological
  - Bone Loss: ↑ 2X
- Cardiovascular Disease
- Cognitive and Neurological Health
- Endocrine Disorders
- Sexual Health
- Mortality

EMOTIONAL/PSYCHOLOGICAL IMPACT

- Unexpected infertility - life altering
- Perceived lower social support
- Lower self esteem

- Increased life time risk of depression
- Emotional support essential

CARDIOVASCULAR IMPACT

Menopause < 40 YO

- 2X risk of angina
- Greater severity on angina 1 yr post MI
- Impaired vascular endothelial function, improves 6 mos post HT
- 36-66% increase in heart failure if <45 YO menopause

Menopause < 45 YO

1.50 for overall coronary heart disease (CHD)
1.11 for fatal CHD
1.23 for overall stroke; 0.99 for stroke mortality
1.12 for all-cause mortality.
BONE IMPACT

Natural Menopause
- Bone loss over a 5-7 yr period starting approx 2-3 years before menopause
- Peaks in first 3 years at 2.4% and declining to 1.2% annually.

POI
- Bone loss is 2 fold higher
- Increase in bone turnover noted with increased urinary N-telopeptide
- Decrease BMD within 12 mos
- Reported 50% more fractures

MANAGEMENT

Counseling
- Acute and long term clinical issues
- Psychological support

Fertility
- 5-10% spontaneous conception
- Early referral

Contraception
- OCs if pregnancy is not desired

Hormone Therapy
- WHI studies do not apply
- Higher than average dose required to restore QOL
- Consider cyclic HT as it mimics normal cycles

QUESTIONS???