

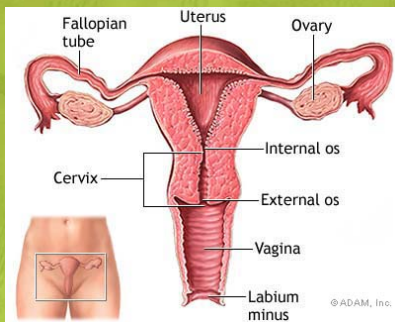
## What You Need to Know About Women's Health Care

**GAPA**  
Summer Conference  
Sandestin, Florida

### Lecture Objectives

1. Review the signs and symptoms of common gynecological disorders, including:
  - a. Menstrual abnormalities
  - b. Uterine / endometrial abnormalities
  - c. Ovarian abnormalities
  - d. Polycystic ovarian syndrome
2. Compare and contrast the diagnoses and treatments of the following.
  - a. Menstrual abnormalities
  - b. Uterine / endometrial abnormalities
  - c. Ovarian abnormalities
  - d. Polycystic ovarian syndrome
3. Discuss the prevention, diagnosis and treatment options for osteoporosis in perimenopausal women.
4. Review the various types of cervical dysplasia and differentiate an appropriate course of treatment for patients based on cervical pathology.

## Review of Anatomy



## Amenorrhea

- Primary
  - Absence of spontaneous menstruation by age 16
  - MCC = PREGNANCY
  - Review of secondary sexual characteristics will assist determining other causes
- Secondary
  - Pregnancy
  - Drug use
  - Significant weight change/excessive exercise
  - With normal estrogen levels: PCOS
  - With low estrogen levels: premature ovarian syndrome, hyperprolactinemia, stress, CNS tumor

## Amenorrhea

- LABS:
  - Serum  $\beta$ hCG
  - Serum FSH, Estrogen, Prolactin, Testosterone
  - Thyroid studies
- Diagnostic tools:
  - Pelvic/Transvaginal U/S
  - CT of hypothalamus/pituitary and pelvis
- TX: depends on source of disorder

## Dysmenorrhea

- painful menstruation
- Affects at least  $\frac{1}{2}$  of all women during their years of menstruation

### Primary Dysmenorrhea

- A prostaglandin problem
  - Excessive secretion of prostaglandin  $F_{\alpha}$  or prostaglandin  $E_2$  into menstrual fluid, causes painful cramping with contractions of the uterus
- Feature of ovulatory cycles
  - Within 6-12 months of menarche
- SSXs:
  - Headache, N/V/D
  - Mid-lower abdominal cramping possibly radiating to lower back, thighs, groin
- Onset before or at beginning of menses and lasting x 1-3 days.

### Secondary Dysmenorrhea

- Unrelated to actual onset of menses each month
- Develops in older women (30-40s)
- Other assoc sx's:
  - Dyspareunia
  - Infertility
  - Abnl bleeding
- Caused by identifiable clinical condition
  - Endometriosis
  - PID
  - IUD
  - Tumor

### Dysmenorrhea

- SSXs:
  - Mid-lower abdominal cramping with radiation to low back, thighs, groin
  - Bloating
  - Menorrhagia
  - Dyspareunia
- TX:
  - Treat underlying conditions
  - Symptomatic treat (NSAIDS, OCP, Tocolytics, Analgesics)
  - Diagnostic tools/txs:
    - Hysteroscopy
    - Exploratory laparoscopy
    - D&C

### Premenstrual Syndrome (PMS)

- Diagnostic criteria unclear
- 90% of women suffer with mild-moderate symptoms
  - 1/3 successfully treated with OTC meds
- An association exists between:
  - PMS / postpartum depression / perimenopausal depression

### Premenstrual Syndrome

- SSXs:
  - Irritability
  - Anxiety
  - Depression
  - Insomnia
  - Fatigue
  - Libido changes
  - Decreased concentration
  - Appetite Changes
  - Bloating
  - Constipation
  - Backache
  - Breast tenderness & swelling
  - Pelvic ache
  - Altered bowel habits

### Premenstrual Syndrome (PMS)

- TX: VERY CHALLENGING!
- Lifestyle modifications suggested:
  - ↓ caffeine & salt intake
  - ↓ fat, ↓ complex carbohydrate diet
  - ↑ Exercise
- Meds:
  - OCPs – ?? improve sx's
  - Diuretics – bloating sx's
  - SSRIs may help depression in some patients

### Dysfunctional Uterine Bleeding

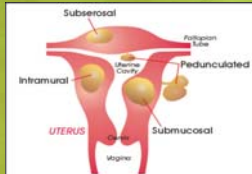
- = abnormal uterine bleeding in absence of an anatomic lesion
- MC times of presentation:
  - Shortly after menarche
  - Perimenopause
- Typically no significant PE findings

### Dysfunctional Uterine Bleeding

- LABS:
  - CBC, PT, PTT
  - Thyroid function
  - Serum Iron, LFTs
  - Serum  $\beta$ hCG
  - Serum prolactin
  - Serum progesterone and FSH levels
  - Pap Smear, Pelvic U/S
  - Endometrial biopsy, Hysterosalpingography
  - Hysteroscopy +/- D&C
- TX:
  - Based on severity
  - Observation
  - Iron supplementation/volume replacement
  - OCPs, unless otherwise contraindicated
  - D&C – is both diagnostic and curative
  - Endometrial ablation
  - Vaginal hysterectomy

### Uterine Fibroids (leiomyomas)

- SSXs:
  - Most commonly asymptomatic
  - Typically found incidentally on PE as firm, irregular uterine mass
  - Bleeding is most common presenting symptom (menorrhagia, intermenstrual bleeding, dysmenorrhea)
  - Pelvic pressure and/or pain



### Uterine Fibroids

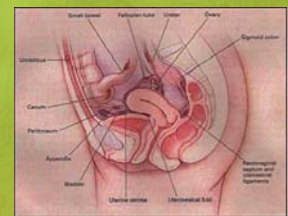
- Diagnostic Tools:
  - Pelvic U/S → most useful diagnostic tool
  - Hysteroscopy
  - D&C
- TX:
  - Observation
  - GnRH agonists and mifepristone can reduce tumor size
- TX (cont):
  - Observation
  - GnRH agonists and mifepristone can reduce tumor size
  - If symptoms worsening, consider:
    - Hysteroscopy with D&C
    - Myomectomy
    - Hysterectomy
    - Uterine artery embolization

### Endometriosis

- Presence of endometrial tissue in extrauterine locations
- Affects 1-7% of women

### Endometriosis

- MC sites:
  - Pelvic cavity
    - Ovaries
    - Fallopian tubes are frequently involved (infertility)
  - Can be more distant (i.e. lung)



## Endometriosis

- SSXs:
  - Dysmenorrhea
  - Pelvic pain
  - Dyspareunia
  - Low back pain associated with menstruation
  - Dyschezia
  - Infertility
- DX:
  - U/S
  - Laparoscopy
  - laparotomy
- TX:
  - Resection of significantly sized endometriomas
  - OCPs can relieve sxs
  - GnRH agonist used in conjunction with surgery can improve fertility

## Endometrial Cancer

- Postmenopausal pts account for:
  - 75% of patients diagnosed
  - 90% of those present with postmenopausal bleeding
- Estrogen dependent
- Prognosis based on histology
- Use of oral contraceptives may have protective effect

## Endometrial Cancer

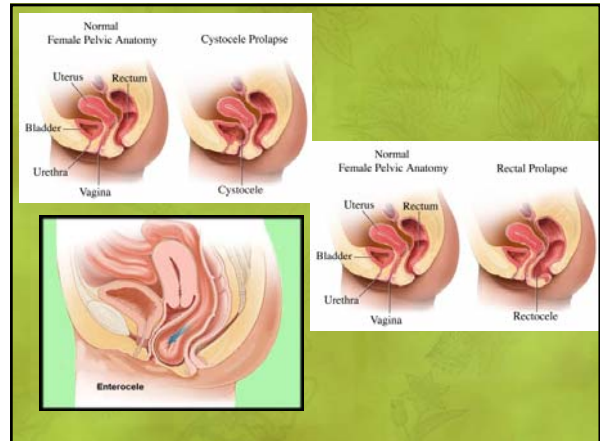
- Risk factors:
  - Obesity
  - Nulliparity
  - Late menopause
  - DM, HTN, Gallbladder Dz
  - Unopposed estrogen stimulation
  - Chronic tamoxifen use
- DX:
  - Endometrial biopsy
  - Endometrial curettage
  - Pelvic U/S is useful
- TX:
  - Total hysterectomy with BSO
  - Radiation therapy

## Uterine Prolapse

- MCC:
  - excessive stretching of pelvic fascia/ligaments/muscles during pregnancy, labor and vaginal delivery
- Increased intra-abdominal pressure
- Iatrogenic factors

## Uterine Prolapse

- Anterior
  - Cystocele or cystourethrocele
- Apical
  - Uterovaginal or vaginal vault prolapse
- Posterior
  - Enterocele, rectocele



### Uterine Prolapse

- Grading of prolapse
  - 0: no descent
  - 1: descent b/w normal position & ischial spines
  - 2: descent b/w ischial spines & hymen
  - 3: descent within hymen
  - 4: descent through hymen

### Uterine Prolapse

- SSXs:
  - Incontinence
  - Pelvic pressure
  - Vaginal fullness
  - Sensation of something “falling out of vagina”
- Degree of symptoms vary:
  - Posture (standing for long period of time)
  - Time of day (worse in evening)
  - Relieved by lying down

### Uterine Prolapse

- TX:
  - Kegel’s exercises
  - weight reduction
  - Smoking cessation
  - Vaginal pessary
- Surgical repair:
  - relieves symptoms
  - restores normal anatomic relationship/function
  - Allows coitus

### Ovarian Cysts

- 5 types:
  - Functional (most common)
  - Follicular
  - Corpus luteum
  - Theca lutein cysts
  - Dermoid

### Ovarian Cysts

- SSXs :
  - Asymptomatic masses on PE
  - Pain (unilateral)
  - Irregular periods
- Confirm diagnosis with pelvic ultrasound
- TX:
  - <8cm & premenopausal → follow x 1-2 cycle
  - >8cm or persistent → laparoscopy

### Polycystic Ovary Syndrome (PCOS)

- MCC of androgen excess & hirsutism
- SSXs:
  - Bilaterally enlarged polycystic ovaries
  - Amenorrhea / oligomenorrhea
  - Chronic anovulation or extended periods of infrequent ovulation
  - Infertility

### Polycystic Ovary Syndrome

- SSXs (cont):
  - Acne (50%)
  - Obesity (50%)
  - Weight gain and/or trouble losing weight
  - Hair growth on the face, back, or chest
  - ↑ insulin levels (more common)
  - ↑ BG/hyperglycemia (less common)

### Polycystic Ovary Syndrome

- Other associations:
  - Frequent miscarriages
  - Gestational diabetes
  - High androgen levels
  - High insulin levels with increased risk of developing DM later in life
  - High cholesterol
  - Predisposition for heart disease

### Polycystic Ovary Syndrome

- Thought to be associated with underlying abnormality of hypothalamic pituitary dysfunction and insulin resistance
- DX:
  - largely based on history and Physical Exam findings:
    - Hirsutism
    - Acne
    - Obesity
  - Pelvic U/S → “string of pearls”

### Polycystic Ovary Syndrome

- LABS:
  - Elevated serum androgen levels
  - Elevated LH:FSH ratio
  - Abnormal lipids
  - Insulin resistance (increased fasting insulin/glucose levels)

### Polycystic Ovary Syndrome

- TX:
  - Androgen-lowering agents (i.e. BCP)
  - Metformin (insulin resistance)
  - Clomiphene citrate for infertility
  - Wedge resection of ovary for refractory cases
  - Medical management of elevated lipids
  - CONSIDER Reproductive Endocrinology Referral!

### Ovarian Cancer

- 5<sup>th</sup> MC cancer in US female population
- Women at increased risk:
  - Older
  - Nulliparous
  - Caucasian
  - Family history
- ¼ of gynecological cancer
- MC age at presentation 40-60 y.o.
- Use of oral contraceptives can reduce risk

### Ovarian Cancer

- Typically presents later in course due to lack of symptoms
- Common presenting SSXs:
  - Ascites
  - Abdominal distention
  - Vague gastrointestinal symptoms
  - Fixed mass

### Ovarian Cancer

- LABS:
  - CA 125
    - Most appropriately utilized to evaluate a patient's response to therapy
- TX:
  - Surgery AND
  - Chemotherapy AND
  - Radiation therapy

### Cervical Dysplasia

- Risk factors:
  - Early age at first sexual intercourse
  - High-risk partner
  - Multiple sexual partners
  - Low socioeconomic status
  - African American
  - Cigarette smoking
  - Human Papillomavirus infection [Types 16, 18, 31, 39, 45, 56, 58, 59, 68 are strongly linked to cervical neoplasia]

### Cervical Dysplasia

- SSXs:
  - Typically asymptomatic
  - Advanced or invasive cervical cancer:
    - Abnormal vaginal bleeding
    - Vaginal discharge
    - Tumor may be evident on exam

### Cervical Dysplasia

- Labs:
  - Pap smear – liquid based cytology
    - Highly effective screening tool
  - According to ACOG guidelines, routine pap tests are recommended for:
    - Women 21 y.o. or older
    - Women who became sexually active 3 years ago, even if younger than 21 y.o. or are not sexually active now

[http://www.acog.org/publications/patient\\_education/bp085.cfm](http://www.acog.org/publications/patient_education/bp085.cfm)

### Cervical Dysplasia Cytology

- ASCUS = atypical squamous cells of undetermined significance
  - REFLEX TESTING FOR HPV
    - Provides a higher level of confidence in correct diagnosis
    - Minimizes risk of missed disease
    - Reduces unnecessary procedures
    - Reduces anxiety in HPV-negative women with ASCUS

[www.digene.com/healthcare\\_hpvtst\\_04](http://www.digene.com/healthcare_hpvtst_04)

### Cervical Dysplasia Cytology

- CIN = cervical intraepithelial neoplasia
  - MC in women in their 20's
  - CIN-1 = mild dysplasia
  - CIN-2 = moderate dysplasia
  - CIN-3 = severe dysplasia
    - 1/3 pts with CIN-3 develop microinvasive and frankly invasive carcinoma

### Cervical Dysplasia Cytology

- CIS = carcinoma in situ
  - MC in 25-35 y.o.
- Cervical cancer more prevalent >40 y.o.

### Cervical Dysplasia Cytology

- Abnormal cytology
  - COLPOSCOPY
    - useful for locating and obtaining biopsy of lesions, typically done initially when pap cytology is ASCUS with positive HPV Reflex testing or CIN

### Cervical Dysplasia and Cytology

- An algorithm using HPV Testing and Cervical Cytology results can be found at the following website:

[http://digene.com/healthcare/healthcare\\_hpvtest](http://digene.com/healthcare/healthcare_hpvtest)

### Cervical Dysplasia

- TX:
  - Mild lesions may respond spontaneously
  - Electrocautery
  - Cryocautery
  - Laser therapy
  - Conization
  - Loop electrosurgical excision procedure (LEEP)

### Human Papillomavirus (HPV)

- HPV Types 16 & 18 cause 70% of cervical cancer cases
- HPV Types 6 and 11 cause 90% of genital warts cases
- HPV testing, combined with cervical cytology, results offers a “reported negative predictive value for CIN 2 and CIN3 of 99-100 percent”

ACOG Practice Bulletin No. 61 “Human Papillomavirus Clinical Management Guidelines for Obstetrician-Gynecologists.” April 2005

### Gardasil ®

- Vaccine to prevent infection of HPV Types 6, 11, 16, 18
- Recommended for young women ages 9-26 who have not had previous exposure

<http://www.gardasil.com>

### THANK YOU FOR ATTENDING!

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