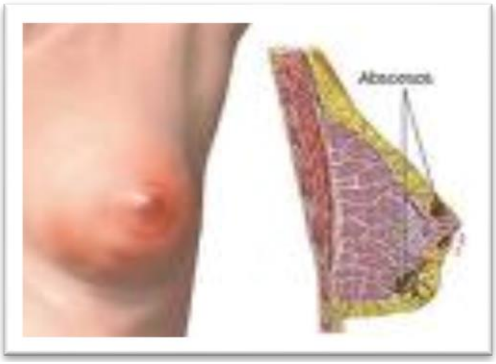
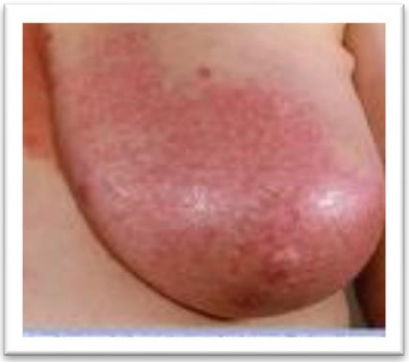
Women's Health Issues
Section 7

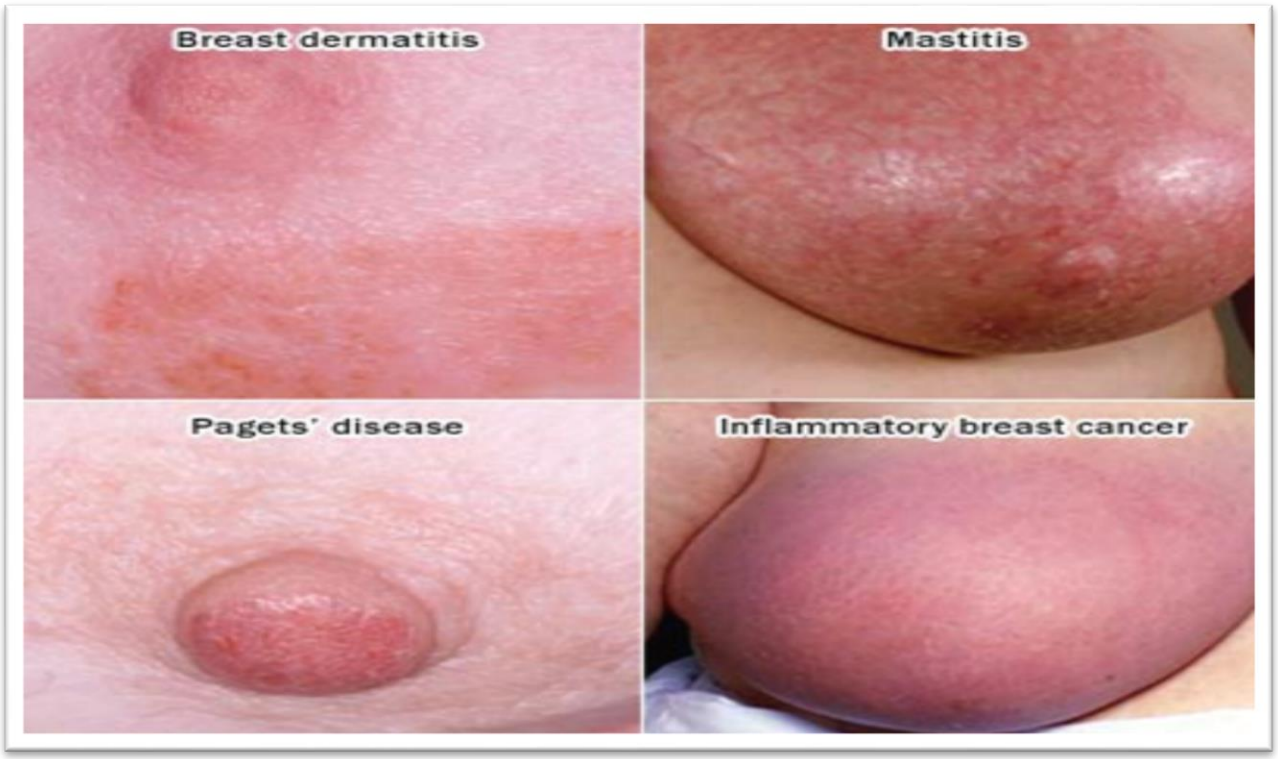
Common Breast Diseases

Mastitis
- Very common during nursing
  - Usually due to staphylococcus
- S & S
  - Usually unilateral redness, tenderness & hardening
  - Severe inflammatory changes in a non-lactating breast is often inflammatory carcinoma
- Diagnosis
  - Confirmed by history
  - Blood tests and biopsy for more severe cases
- Treatment
  - Dicloxacillin or cephalosporin 7-10 days
  - If not treated promptly, may lead to abscess, which requires drainage and IV





Nipple Discharges
- Clear or white – may be due to clothing irritation, manual stimulation, foreplay
- Milky - galactorrhea
- Green – fibrous growth
- Red-tinged or bloody – tumor
- Foul-smelling – breast infection
- Unilateral nipple discharge – benign or cancerous tumor or infection
- Bilateral nipple discharge – suggests a systemic problem such as hormonal tumor or drugs
- Medication side effect
  - Antidepressants, antihypertensives, oral contraceptives, hormone replacement drugs
- Galactorrhea
  - The production of breast milk in non-lactating
  - Usually due to pituitary tumor
  - May also cause amenorrhea and decreased libido

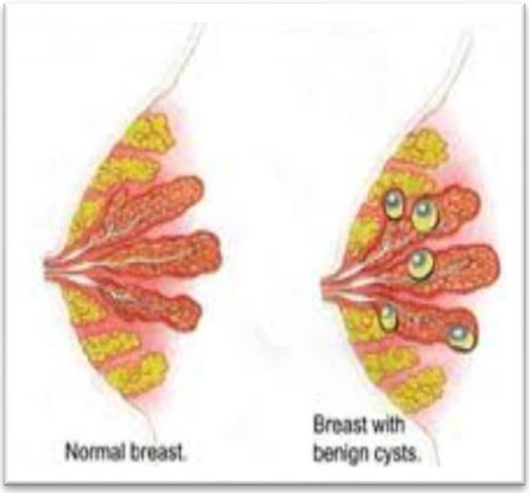


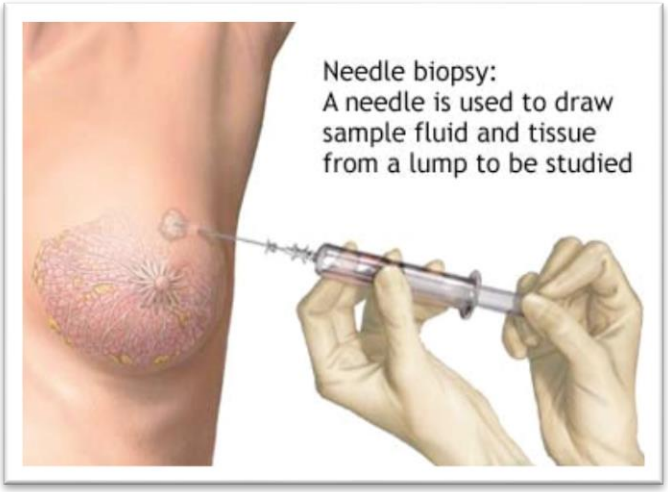
Fibrocystic Breasts

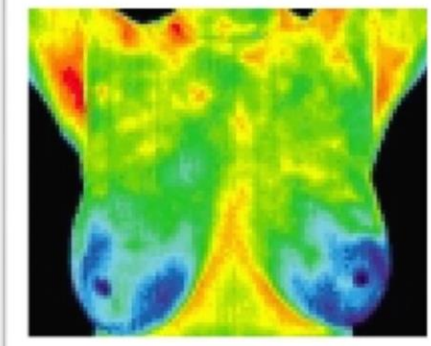
- Fibrocystic breast condition is lumpiness in one or both breasts
- Breast tenderness or pain are usually present in fibrocystic breast condition
- Fibrocystic breast condition is a very common and benign condition
- Normal hormonal variation during the menstrual cycle is the primary contributing factor to fibrocystic breast condition
- Fibrocystic breast condition is a cumulative process that mainly affects women 30-50

Fibrocystic Disease

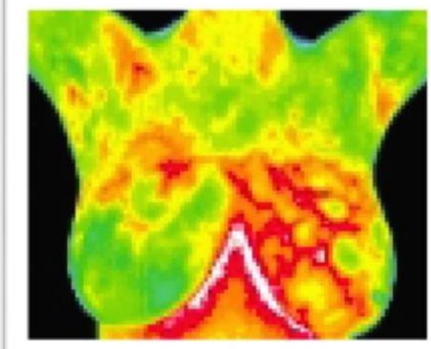
- The lumps in fibrocystic breast condition can mimic and mask breast cancer
- S & S
    - Multiple tender and painful lumps, tend to be fluid filled
    - Changes in size as the fluids increase or reabsorb
- Diagnosis
    - Not an increased risk of breast cancer
    - Diagnosis must be differentiated due to anxiety
    - Firm persistent nodules should biopsy and mammo
- Treatment
    - Danazol is rarely given for severe pain
        - Side effects – acne, hirsutism, fluid retention
    - Stop coffee, tea and chocolate







NORMAL
Good thermal symmetry with no suspicious thermal findings.
These patterns represent a baseline that won't alter over time and can only be changed by pathology.



FIBROCYSTIC
Significant vascular activity in the left breast which was clinically correlated with fibrocystic changes.

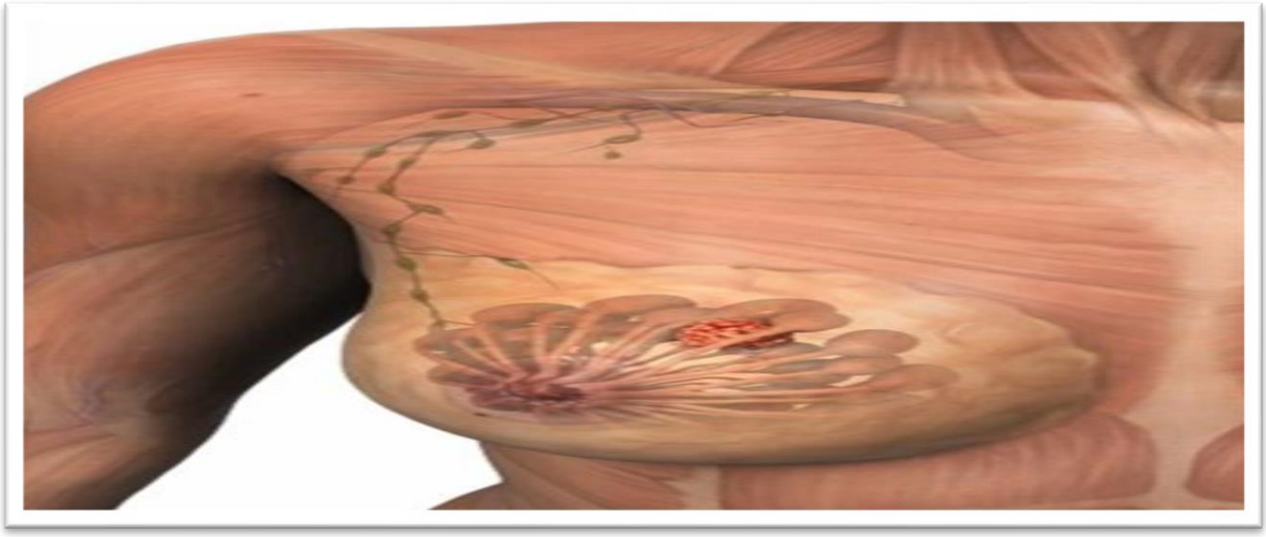
Fibroadenomas

- Benign breast tumors - Significant anxieties for patients
- Diagnosis
    - Firm, rubbery masses in young women 20-30
    - Movable mass, not fixed
    - Seen more in African American women
- Treatment
    - US, needle biopsy and aspiration
    - Excisional biopsy of suspicious lesions

Breast Cancer

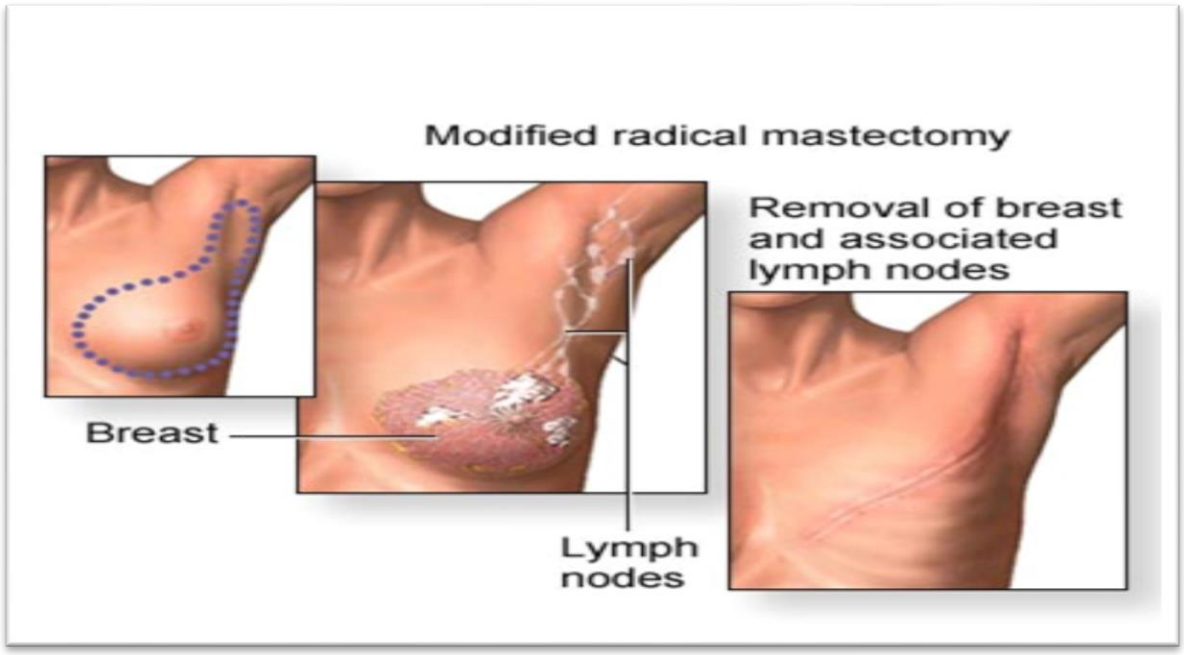
- Incidence
  - 211,000 new case per year and 40,000 deaths
  - 56,000 diagnosed as DCIS – ductal carcinoma in situ
  - 1 in 8 women will develop at one time in their life
- Prognosis
  - Cure rate 75-90% if cancer is localized to the breast without metastases
  - 90% survival rate with small mamo detected and no lymph node involvement
  - 45% five year survival if in axillary nodes
    - 25% to ten year survival
  - 5-10% five year survival with distant metastasis
    - 2% ten year survival
- Breast Cancer Risk Factors
  - Age - chances increase with age
    - 80 percent older than age 50
    - In 30s, 1 in 233 chance of developing breast cancer
    - By age 85, chance is 1 in 8
  - Most significant is family history
  - Genetic predisposition
  - Radiation exposure
  - Early menarche and late menopause
  - First pregnancy after 30 or never pregnant
  - Excess weight, excess alcohol, smoking
  - Birth control pills
  - Hormone replacement therapy
  - Environmental factors
- Breast Cancer Diagnosis
  - Should have breast exam every two years between 20-40 and yearly over 40
  - Yearly mammography over 40
  - On palpation – present as single, firm hard mass, usually non tender with poor margins
    - Painless lump 70% of time
    - 90% of time – patient self discovered
    - 60% in upper outer breast quadrant
  - On mammography – appears as clustered lesions
- Staging Breast Cancer

	Tumor Size	Lymph Node Involvement	Metastasis (Spread)
I	<2 cm	No	No
II	2-5 cm	No or in same side of breast	No
III	>5 cm	Yes, on same side of breast	No
IV	Not applicable	Not applicable	Yes



Breast Cancer Treatment

- For Stage I & II
  - Modified radical mastectomy alone or
  - Lumpectomy and axillary dissection
  - Post surgical radiation and chemotherapy
  - Breast conservation therapy with radiation presents with 75% cure rate
- National Cancer Institute criteria handout
- Complications of surgery
  - Post surgical complications
  - Up to 30% have arm edema



PMS

PMS Pathophysiology

- Recurrent, cyclical set of physical and behavioral symptoms occurring 7-14 days before the cycle
- Troublesome enough to interfere with daily life
- Occurs up to 40% of women
- Most severe cases 5% of 25-35 year olds

Proposed Etiologies of PMS

- Hormonal
    - Estrogen deficiency or excess
    - Progesterone deficiency or excess
    - Prolactin excess
    - Beta-endorphin deficiency
    - Altered estrogen : progesterone ratio
- Fluids and Electrolytes
    - Vasopressin excess
    - Aldosterone excess
    - Sodium : Potassium ratio Na : K
- Neurotransmitters
    - Serotonin deficiency
    - Cortisol excess
    - Adrenal insufficiency
    - Thyroid abnormalities
    - Hypoglycemia or decreased glucose tolerance
- Prostaglandins
    - Excess or deficiency
    - Essential fatty acid deficiencies
- Heredity
- Vitamins and Minerals
    - Pyridoxine deficiency
    - Vitamin A and E deficiency
    - Magnesium deficiency
    - Calcium deficiency or excess
    - Potassium deficiency
    - Zinc deficiency
    - Dopamine deficiency
    - Trace mineral deficiency
- Psychological factors
    - Beliefs around menses
    - Coping skills
    - Self esteem
    - Psychiatric problems

Proposed Etiologies of PMS - continued

- Social Factors
  - Stress and social network
  - Marital and sexual relationships (current & former)
  - Psychosexual experiences
  - Attitudes of PMS

Symptoms of PMS

- Nervousness, fatigue, mood swings, tender breasts
- Back pain, diarrhea, clumsiness, social isolation
- Anxiety, lethargy, water retention, headache, acne
- Decreased libido, dizziness, insomnia, irritability
- Depression, abdominal bloating, appetite change
- Sugar cravings, constipation, low self esteem, joint pain

Classifications of PMS

- PMS – A Anxiety
  - Caused by increased estrogen
- PMS – C Carbohydrate craving
  - Caused by increased binding of insulin
- PMS – D Depression
  - Caused by decreased estrogen
- PMS – H Hyper hydration
  - Caused by increased aldosterone

Consider other medical conditions

- It is important to address any underlying medical conditions that may be masked by PMS.
- One study found that 75% of women receiving care for PMS actually had another diagnosis that accounted for many of the major symptoms of depression and mood swings.

PMS Treatment

- Daily journaling for 3 months
- Empathetic support
- Exercise and conditioning training
- Salt reduction and diuretics
- Stress reduction program
- Calcium supplements
- SSRI – serotonin reuptake inhibitors
  - Prozac
- NSAIDs

Dysmenorrhea

- Most common of all gynecologic complaints
- Affects over 50% of women
- The leading cause of absenteeism
- Characterized by lower abdominal cramps
    - and pain from mild to debilitating
- Often associated with nausea, vomiting, diarrhea, headaches, vertigo, back pain

Two Types of Dysmennorrhea

- Primary Dysmenorrhea
    - Pain without pelvic pathology
    - Usually starts before age of 20
    - With nausea 50% of time
    - With vomiting 25% of time
    - With stool frequency 35% of time
    - Pain usually starts a few hours before menses
    - Usually lasts a few hours to a few days
- Secondary Dysmennorrhea
    - Pain with pelvic pathology and lesions
    - Endometriosis, P.I.D., Surgical Adhesions
    - Also caused by I.U.D.
    - Usually lateralized to one side
    - Usually is later in life
    - Begins a few days before menses
    - Lasts several days

Dysmenorrhea Etiology

- Like all chronic pain problems, the etiology is often multi-factoral.
- On the biochemical level, Prostogladins (PGS) account for most of the symptoms.
- Stimulation of the uterus by estrogen and progesterone increases the endometrial stores of Arachidonic Acid, which is the main PGS causing pain and symptoms.
- Arachidonic Acid
    - Has been found to cause significant symptoms, especially in teenagers
    - Dietary Considerations
        - Beef - red meats
        - Chicken and turkey
        - Dairy products
        - Whole milk

Dysmenorrhea Diagnosis

- Diagnosis of primary is self-apparent
- Diagnosis of secondary with ultrasound for fibroids, CT for endometriosis, cervical culture for PID

Dysmenorrhea Treatment

- Primary – NSAIDs and oral contraceptives
- Secondary – treat the primary cause
    - Remove IUD, remove fibroids

Abnormal Bleeding

- Normal – 2-3 ounces per cycle (4 days)
- Amenorrhea – absence
    - Primary – period never begins
        - Pituitary, genetic, thyroid
    - Secondary – period began normally then stopped
        - Malnutrition, tumors, endocrine, anorexia nervosa, PTSD, excessive exercise
- Hypomenorrhagia – light or scanty periods
- Polymenorrhea - frequent periods
    - Caused by oral contraceptives, endocrine, thyroid, pituitary, diabetes
    - Diagnosis with US and laporoscapy
- Menorrhagia – long and heavy periods
    - Caused by uterine fibroids, oral contraceptives, IUD, thyroid disorders
    - S & S
        - Soaking through pads or tampons every hour or two
        - Needing double protection on frequent basis
        - Prolonged heavy periods more than one week
        - Passing large clots
        - Constant cramping
        - Possible anemia symptoms
- Metrorrhagia
    - Dysfunctional irregular uterine bleeding
    - Commonly caused by fibroids

Infections of Vulva & Vagina

- Most common gynecological problem
- S & S
    - Burning, itching and discharge
- Diagnosis
    - History of allergies, use of contraceptives, tampons, douches, recent sexual activity
    - Presence of vaginal pain, burning, itching and profuse odorous discharge
    - Culture of discharge

Vulvovaginal candidiasis
- Predisposing factors – pregnancy, diabetes, heat, moisture, occlusive clothing, use of antibiotics and steroids
- White, curd-like discharge is common
- Treat with clotrimazole or miconazole cream or suppositories 1-3 days

Trichomonas vaginalis
- Parasitic infection transmitted by intercourse
- Intense itching, frothy yellow green discharge
- Treat both partners with Flagyl – 7 day

Bacterial vaginosis
- Non-sexually transmitted polymicrobial disease
- Gray discharge, fishy odor and very acidic pH
- Common in older women
- Treat with metranidazole 7 days and clindamycin cream

HPV – human papilloma virus
- Sexually transmitted genital warts
- Greatly increases the risk of later developing cervical o uterine cancer
    - Also increases the risk of anal cancer
- Treat with Podophyllum resin 25% or trichloroacetic acid or liquid nitrogen

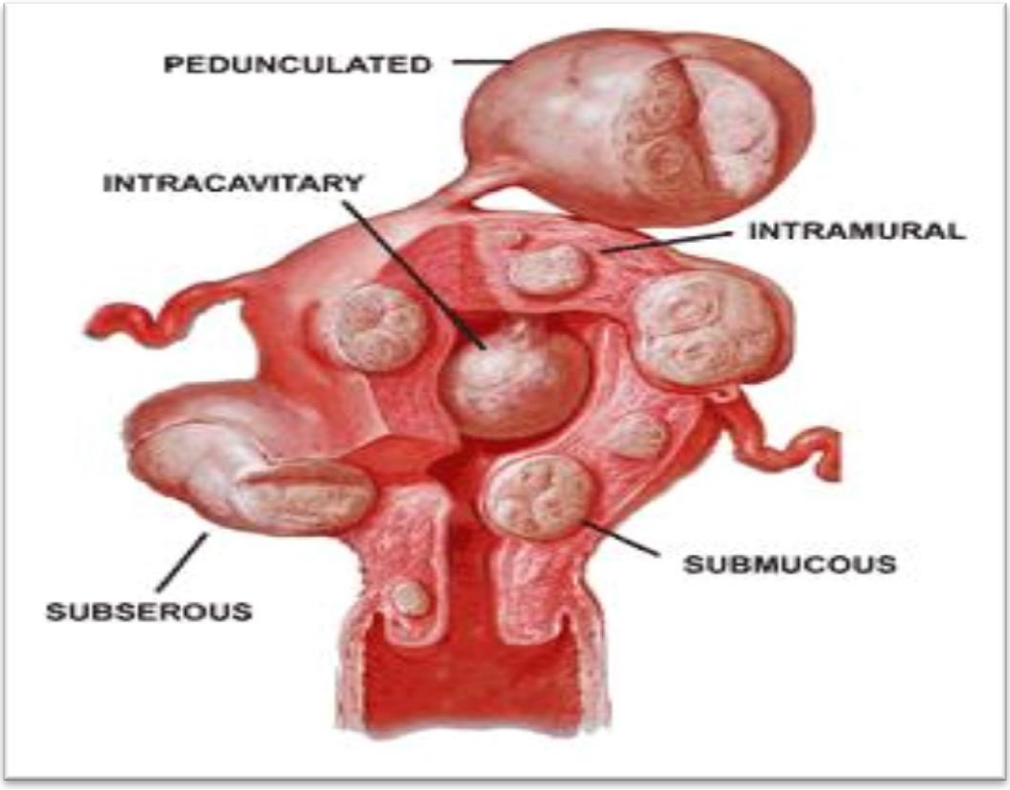
Bartholin's gland abscess
- Glands are prone to infection with heat, moisture and tight underclothes
- Can become very tender and swollen and pus filled
- Diagnosis – culture pus
- Treatment with incision and drainage of abscess
    - Warm soaks and sitz baths
    - Oral antibiotics – Keflex or cephalosporin

Diseases of the Uterus

Adenomyosis
- Non-cancerous overgrowth of endometrial tissue
- Mainly in 35-50 nulliparous women
- S & S
    - Heavy, painful periods (menorrhagia) and bleeding between periods (metrorrhagia)
    - Uterus enlarges 2-3 times normal
    - Dyspareunia
- Diagnosis with MRI and endometrial biopsy
- Treatment – no effective western tx, sometimes OCP helps reduce bleeding and swelling

Uterine Fibroids

- Noncancerous tumors of smooth muscle cells and fibrous tissue
- Also called leiomyomas, fibromas, fibromyomas
- Starts off microscopic and grows over the years
- The most common pelvic tumor
- Incidence
    - 25% to 50% of women from 25-45
    - Up to ¼ in white women and ½ in black women
    - Autopsy results consistent with 75%
- Fibroid Symptoms - Most not bothered by them
    - Symptoms fall into two categories
        - Bleeding – can be heavy if the fibroids are located submucosally. Usually causes anemia which causes fatigue.
        - Pelvic pain
- Treatment
    - Oral contraceptives
    - GnRH - Gonadotropin Releasing Hormone Agonist
    - Surgery
        - 80-90% success
        - Regrowth up to 50%



Endometriosis

- Noncancerous condition with endometrial tissue growth outside the uterus – unknown cause
- 10-15% incidence in the childbearing years
- Tissue that grow outside uterus is called implants
    - Grow on the ovaries, fallopian tubes, outer wall of the uterus, intestines, or other organs in the belly
- S & S – pelvic pain, heavy flow, dyspareunia, rectal bleeding, infertility
- Diagnosis with US, MRI, pelvic exam
- Treatment best with TCM
    - Western care of NSAID, oral contraceptives, hormone therapy and laparoscopy scar tissue

Female Genital Cancers

Cancer of the vulva

- Usually after 50 with history of genital warts
- May have a history of prolonged vulvar irritation and is obesity and diabetes
- S & S – Vulva pain and tenderness with visible growth and ulceration around labia. May also have tender nodes, weakness, bleeding and weight loss
- Diagnosis – biopsy
- Treatment – surgery with wide excision and node dissection

Cancer of the vagina

- Very uncommon – less then 1% of GYN cancers
- Squamous cell cancers over 60 years old with exposure to HPV
- S & S – post-coital bleeding, vaginal ulcers
- Treatment – vaginal removal and node dissection followed by vaginal reconstruction

Cancer of the fallopian tubes

- Less then 1% of female genital cancers
- Usually noted on laparoscopy for another condition
- Treatment – TAH, BSO, LND
    - Total abdominal hysterectomy, bilateral salpingo-ohporectomy, lymph node dissection

Cervical cancer - CaCX

- Most common female cancer under 55
- Usually caused by HPV
- Between 1947 and 1971 pregnant women were given DES to stabilize them with bleeding and diabetes in pregnancy
    - Daughters of moms who took this drug are high risk
        - Currently 38 to 62 years old
    - S & S
        - Metrorrhagia, post-coital spotting, cervical ulcerations
    - Staging
        - Stage 0 – carcinoma in situ
        - Stage I – invasion up to 5 mm depth
        - Stage II, III – invasion into pelvis
        - Stage IV – invasion into bladder, rectum or distant metastases
- Treatment – total hysterectomy, radical hysterectomy, radiation
- Prognosis
    - 5-year survival – 68% white women, 55% black women
    - 99% 5-year survival for stage 0

Ovarian cancer

- Most fatal of all female reproductive tract cancers
- S & S - Very little in the early stages as it grows silently, usually not found until late stages which presents with weight loss, abdominal pain, weakness
- Diagnosis
    - 80% of patients have elevated serum CA 125, US, MRI, CT. pelvic exam
- Prognosis
    - 75 % of cases have advanced metastasis when diagnosed
    - 17% 5-year survival if metastasized, 89% survival if caught early and surgery performed
- Treatment
    - TAH, BSO, LND, chemotherapy post-op if spread

Menopause

- Classically defined as cessation of menses for
- 6-12 months
- Clinically defined as 12 consecutive months without menses
- Average age is 51 with a range of 40 to 58
    - Smokers may start 2 to 3 years earlier

Menopause Definitions

- Surgical menopause
    - Excision of both ovaries causing a withdrawal of ovarian hormones causing a cessation of menses and the abrupt thrusting into post menopause state
- Perimenopause
    - Transition time from regular, mostly ovulatory, menses to irregular menses
    - May last from 2 to 12 years and is associated with wide fluctuations in estrogen and progesterone
- Postmenopause
    - Time after complete cessation

Menopause Diagnosis

- Women differ greatly in symptoms of perimenopause and menopause.
- Symptoms are not life threatening, but do negatively effect quality of life.
- Symptoms vary
    - Irregular menses, vaginal dryness, decreased libido, night sweats, fatigue, forgetfulness, sleep difficulty, mental fogginess, palpations, incontinence, anxiety, mood swings, depression, joint pain, weight gain, difficulty concentrating

Menopause Treatment

- Limit alcohol, caffeine, junk food
- No smoking
- Moderate exercise
- Increase phytoestrogens in diet
    - Soy, tofu, miso, lentils
- Hormone replacement therapy
    - Do not use combination progestin-estrogen to prevent symptoms or osteoporosis
        - Increases risk of thrombotic disease, gallstones, fibroids, and breast cancer

The Seven Dwarves of Menopause

Itchy, Bitchy, Sweaty, Sleepy, Bloated, Forgetful & Psycho

Infertility

- Definition – no pregnancy after one year of normal sexual activity without contraceptives
    - Experienced by 25% at any given time
- Four sources of infertility
    - The sperm
    - Ovulation
    - Fallopian tube problems
    - Cervical mucus problems

Problems with the sperm

- Increased testicular temperature
- Hormonal or genetic disorders
- Mumps
- Testicular injuries
- Industrial/environmental toxins
- Certain drugs
- Excessive smoking
- Alcohol abuse
- Prostate surgery
- Treatment
- Address specific cause
- Clomid increases sperm count, but not motility

Problems with ovulation

- Hypothalamus not releasing GRH
- Pituitary may not secrete LH
- Polycystic ovary syndrome
- Hypo or hyper thyroidism
- Adrenal gland disorders
- Excessive exercise can cause anovulation
- Obesity can cause anovulation
- Inadequate nutrition
- Diabetes mellitus
- Excessive psychological stress
- Chronic illness
- Diagnosis
- Endometrial biopsy 12 days after supposed ovulation
- Treatment
- Treat the underlying condition

Problems with fallopian tubes

- Anything that can cause scarring of the tubes
- Chlamydia infections is the most common
- Gonorrhea and PID
- Endometriosis
- Diagnosis – US and laparoscopy
- Problems with cervical mucus
- Normal cervical mucus is thick and impenetrable to sperm until before ovulation
- Cervical infections can interfere with
- Diagnosis – mid cyle post-coital mucus test

Women's Health Acute Red Flags

- Redness in skin breast (may be inflammatory CA)
- Any breast infection other than small sub-areolar abscesses
- Vaginal infections
- New onset of an acute SID
- Molar pregnancy – hydatidiform mole
- Bleeding with pregnancy

Women's Health Sub-acute Red Flags

- Unilateral breast discharge
- Small sub-areolar abscesses
- Any new breast lump reported by patient
- Severe PMS
- Severe dysmenorrhea
- Abnormal vaginal bleeding
- Severe (symptomatic) fibroids
- Severe endometriosis
- S & S of female tract cancer
- Pregnancy if patient has not yet started prenatal