The Reproductive System

Part 4
Lecture Outline

• Disorders of the reproductive system
  • Sexually transmitted diseases
  • Specific female disorders
  • Specific male disorders

• Heredity
  • Genes
  • Inheritance
  • Sex and sex-linked inheritance
Sexually Transmitted Diseases

- Also called sexually transmitted infections (STD’s) or venereal diseases (VD’s)
- The single most important cause of reproductive disorders
Gonorrhea

- Bacterial infection of mucosa
  - Reproductive and urinary tracts
  - Painful urination in males
- Spread by contact with genital, anal and pharyngeal mucosa
Syphilis

- Bacterial infection
  - Transmitted sexually or contracted congenitally
  - Infected fetuses are stillborn or die shortly after birth
- Infection is asymptomatic for 2–3 weeks
  - Painless chancre appears at the site of infection
  - Disappears in a few weeks
- Untreated
  - May eventually infect nervous and vascular system
    - Severe signs, often fatal
- Treatment
  - Penicillin
Syphilis

Chlamydia

- Most common bacterial STD in the United States
  - Responsible for 25–50% of all diagnosed cases of pelvic inflammatory disease

- Symptoms
  - Urethritis
  - Penile and vaginal discharges
  - Abdominal, rectal, or testicular pain
  - Painful intercourse
  - Irregular menses

- Treatment
  - Tetracycline
Genital Herpes

- Caused by herpes simplex virus type 2
- Characterized by latent periods and flare-ups
  - Congenital herpes can cause malformations of a fetus
  - Virus hides in posterior root ganglia of nerves in genital area
- Treatment
  - Acyclovir and other antiviral drugs
Specific Female Disorders

- **Endometriosis**
  - Extra-uterine endometrial tissue
    - Responds to hormones
    - May be present throughout abdomen
      - Most commonly associated with uterus, tubes or ovaries
    - No drainage is possible = blood accumulates = pain
Specific Female Disorders

- Pelvic inflammatory disease
- HPV
- Tumors
  - Common in cervix, uterus, and breast
  - May be malignant or benign
Specific Male Disorders

- Most common problems involve prostate
  - Prostatitis
  - Benign prostatic hyperplasia
  - Prostate cancer
Heredity

- Genes
  - Short sequences of DNA making up chromosomes
  - Specify order of amino acids which make proteins
  - Each cell contains two copies of a gene

- Alleles
  - Different forms of a gene
  - Homozygous and heterozygous
  - Dominant and recessive
Heredity

- Inheritance
  - Individuals pass only one allele to offspring
    - Possible to predict appearance or trait
Heredity

- Sex and sex-linked inheritance
  - Gender is genetically controlled
  - XY and XX
    - Sex linked inheritance
    - Women can carry an unexpressed allele which may be expressed in sons

![Diagram showing sex-linked inheritance]