

NURS 821 Metabolic and Endocrine Disorders; Alterations in Reproduction

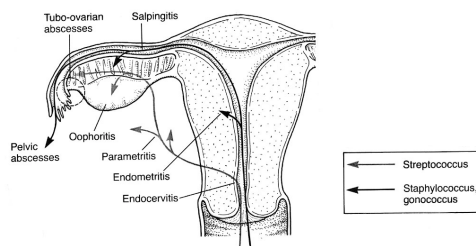
Lecture 9

Part 6 Alterations in Reproduction: Disorders of the Female Reproductive Tract

Pelvic Inflammatory Disease (PID)

- Definition
- Common etiology: gonococcus, staphylococcus, streptococcus, chlamydia, trachomatis
- Pathophysiology
- Clinical manifestations
- Complications-peritonitis, adhesions, infertility

Etiology of Pelvic Inflammatory Disease



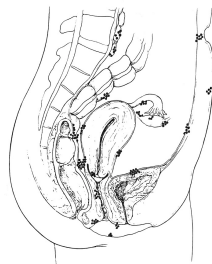
Endometriosis

- Etiology – theories
 - Retrograde menstruation
 - Metaplasia
 - Decreased Tc activity
 - Genetic predisposition
- Pathophysiology
- Clinical manifestations

Endometriosis

- Types:
 - Internal
 - External
 - Sites: outer uterine surface, fallopian tubes, ovaries (endometrioma), bladder and rectal surfaces, uterine ligaments, cul-de-sac, rectovaginal septum, appendix, bowel

Endometrial Implants



Infertility

- Female
 - Blockage of egg or embryo passage through fallopian tubes – strictures, adhesions, scarring, endometriosis
 - Failure to produce viable eggs
 - Failure of embryo to implant – uterine lining issues due to hormonal imbalances; fibroids
 - Failure to carry – uterine shape, size, and muscle issues
 - Anti-sperm antibody production – hostile cervical mucus
 - Prenatal exposure to DES

Infertility

- Male
 - Spermatogenesis issues: too few, decreased mobility
 - May be related to increased body temperature of testicles- e.g. varicocele, jockey shorts, hot tubs
 - Prenatal DES exposure- testicular abnormalities- undescended or abnormally small
 - Stress
 - Cystic Fibrosis

Infertility (cont'd)

- Unexplained
- NICHD (2000) reported finding of Mater (maternal effect) gene in mice, required for early embryos to develop normally
- Without gene, females develop normally, yet their fertilized eggs do not progress beyond the 2 cell stage
- Males without gene, unaffected. Females with 1 copy of gene unaffected.

Premature Ovarian Failure

- Infertility and hormone deficiency in healthy young women
- Etiology – May be autoimmune (NICHD, 2000)

Diethylstilbesterol

- Synthetic estrogen prescribed between 1938-1971 for complications of pregnancy
- 5-10 million people exposed
- Given during first 5 months resulted in developing reproductive system of fetus
- Associated with clear cell adenocarcinoma of vagina or cervix – usually age 19-20, up to 40
- Abnormal vaginal and cervical cells – dysplasia, cervical intra-epithelial neoplasia, squamous intra-epithelial lesions that resemble cancer; not invasive, but may progress (NCI, 2000)

DES Issues

- Mothers: Increased breast cancer
- Daughters: Increased vaginal and cervical cancer; reproductive anomalies; increased ectopic pregnancies; increased miscarriage; increased premature delivery
- Sons: Testicular and fertility anomalies; testicular cancer risk; prostate cancer risk is unclear
- Research: looking at effects on next generation (NCI, 2000)
