Harvard-MIT Division of Health Sciences and Technology

HST.071: Human Reproductive Biology Course Director: Professor Henry Klapholz

> IN SUMMARY FEMALE REPRODUCTIVE SYSTEM

HST 071

FEMALE PELVIC ANATOMY

UTERUS

- Composed of smooth muscle, collagen connective tissue, vessels, nerves, lymphatics
- Corpus body (mainly smooth muscle)
- Cervix (neck) mainly collagen
- · Supported by utero-sacral ligaments, cardinal ligaments
- Round ligaments no supportive value
- Broad ligament not a ligament but rather two layers of peritoneum containing vessels, lymphatics
- Space between leaves of broad ligament are extra peritoneal
- Lymphatic of cervix drain to base of broad ligament
- Lymphatic of upper uterus drain to ovarian plexus
- Ovaries are BEHIND uterus and usually lie in cul-de-sac
- · Blood supply: uterine arteries (ascending and descending branches, ovarian vessels
- Ureter travels UNDER the uterine vessels ("water runs under bridge")
- Ureter is about 1.5 cm from cervix (easily injured during hysterectomy)
- Bladder and urethra above uterus may prolapse into vagina (urethrocele, cystocele)
- May cause urinary stress incontinence (loss of urine with cough or sneeze)
- Short female urethra may result in urinary tract infections
- Perineum innervated by S2,3,4 by branches of pudendal nerve
- Genitofemoral nerve innervates the upper vulva

HISTOLOGY

- Portio of cervix stratified squamous epithelium, originally was columnar epithelium that underwent squamous metaplasia
- May contain "Nabothian cysts" glands that became obstructed through overlying squamous metaplasia – normal finding of no significance
- Cervical canal lined with ciliated columnar epithelium with crypts that extend into the collagenous lamina propria
- Endometrium consists of columnar epithelium that undergoes hormonal change each month and ultimately sheds (known as "decidua")

ABNORMAL BLEEDING

- Menorrhagia excessive at regular intervals
- Menometrorrhagia excessive at regular intervals
- Intermenstrual Bldg between normal cycles
- Polymenorrhea <21 day intervals
- Oligomenorrhea >35 day intervals
- Hypomenorrhea regular but small amounts
- Postmenopausal unanticipated after one year of amenorrhea
- Pregnancy related, Infection, Neoplasm, Hormonal, latrogenic, Systemic