UTERINE MYOMAS

I. Pathophysiology
- Exact etiology unclear, thought to develop from smooth muscle cells, metaplastic transformation of connective tissue cells, or persistent embryonic nest cells
- Hormonally responsive to estrogen; grow during pregnancy and regress with menopause
- Classified as submucosal (beneath endometrium), intramural (in uterine wall, most common), or subserosal (beneath serosa)
- May outgrow blood supply and degenerate causing pain

II. Epidemiology
- 30-40% of American women will have one by age 40

III. Risk Factors
- African American women have a 3-9 times higher risk

IV. Presentation
- 50-65% of women are without symptoms
- Abnormal uterine bleeding manifested as menorrhagia, leading to anemia
- Pressure related symptoms (pelvic pressure, fullness, heaviness), constipation, urinary retention
- Infertility (responsible for 2-10% of infertility cases as fibroids distort canal and tubes
- Pain if vascular compromise occurs

V. Physical Exam
- On bimanual exam, the uterus is non-tender but irregularly enlarged and “lumpy-bumpy”

VI. Differential Diagnoses
- Endometrial hyperplasia or carcinoma
- Endometriosis or adenomyosis
- Uterine sarcomas
- Pregnancy
- Ovarian cyst or neoplasm
- Tubo-ovarian abscess

VII. Evaluation
- Pelvic ultrasound most commonly done, but other tests include MRI, HSG, hysteroscopy

VIII. Treatment
- Most don’t require treatment and can be managed expectantly, Follow the mass size and growth
- It is very important to r/o other causes of pelvic masses (i.e. cancer)
- If causing severe pain, infertility, urinary tract symptoms, or showing evidence of post-menopausal growth treat either medically or surgically
    - A. Medical treatment – medroxyprogesterone, danazol, GnRH agonists all shrink fibroids by decreasing estrogen. However, when drug is d/c fibroids often resume growth. Drugs may be used temporarily in peri-menopausal women until endogenous estrogen decreases naturally.
    - B. Surgical indications –
        - i. abnormal uterine bleeding causing anemia
        - ii. severe pelvic pain secondary to amenorrhea
        - iii. size > 12 wks gestation obscuring evaluation of adnexa
        - iv. urinary frequency or retention
        - v. growth after menopause
        - vi. infertility
        - vii. rapid increase in size (r/o leiomyosarcoma)
    - C. Myomectomy – Good for patients who want to preserve their fertility but the fibroid will recur in 50% of patients
    - D. Hysterectomy – The definitive treatment. Perform oophorectomy only if ovaries are damaged or age > 45 y/o

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