Sarcoma and Endometrial Hyperplasia

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MSU SCS Board Review Course

Sarcomas
- Rare uterine cancers ~3%
  - Leiomyosarcoma
  - Carcinosarcoma (MMMT)
  - Endometrial Stromal Sarcomas
- Aggressive tumors
- High Mortality Rates

Leiomyosarcoma
- Signs / Symptoms
  - Pain, Pressure, AUB, Abdominal mass (Rapidly enlarging)
  - Only 40% will have vaginal bleeding
- Surgery
  - TAH BSO ± LN postmenopausal
  - Can leave ovaries in premenopausal patients

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Leiomyosarcoma

- Rarely diagnosed before surgery
- MRI or PET scan can help to try and differentiate between benign and malignant sarcoma
- Rarely spread to lymph nodes
- Soft, fleshy tumor
  - Areas of necrosis and hemorrhage

Pathology

- 3 factors to diagnose
  - Coagulative tumor cell necrosis
  - High mitotic rate (commonly >10/10 high power fields)
  - Cytologic atypia
FIGO Staging – Leiomyosarcoma and ESS
- IA - ≤ 5 cm
- IB - > 5 cm
- IIA – Adnexal involvement
- IIB – Involvement of other pelvic tissue
- IIIA – Invades one site of abdominal tissue
- IIIB – Invades >1 site of abdominal tissue
- IIC – Met to Pelvic / Para-aortic LN
- IVA – Bladder / Rectum invasion
- IVB – Distant Mets

Endometrial Stromal Sarcomas
- Age
  - 42-53
- Symptoms
  - AUB, abdominal pain, Uterine enlargement
- Diagnosis
  - Most involve endometrium, thus found on D&C
- Surgery
  - TAH BSO ± LN
  - Progestin or Aromatase inhibitor can be used after surgery in advanced cases

Pathology
- Differential Diagnoses from stromal nodules by
  - Infiltrating margins
  - Angioinvasion
Malignant Mixed Mesodermal tumors (MMMT) / Carcinosarcoma

- Symptoms
  - Postmenopausal bleeding, Pelvic pain, Pelvic mass
  - Often see tumor protruding from the cervical OS
- Diagnosis
  - D&C
- Surgery
  - TAH BSO, Pelvic and Aortic LN, Omental biopsy
  - Staging according to Endometrial Cancer FIGO stage
- Postop
  - Treat commonly with Chemo (Act like high-risk endometrial histology)
Pathology

- Contain Carcinomatous and sarcomatous elements
- Carcinoma component
  - High grade and usually reminiscent of serous carcinoma
- Sarcoma component
  - High grade (homologous or heterologous)
  - Homologous
    - Fibrosarcoma, Histiocytoma, Undifferentiated sarcoma
  - Heterologous
    - Rhabdomyosarcoma, Chondrosarcoma, Osteosarcoma, liposarcoma

MMMT Spread

- Typically met through lymphatic channels
- Most metastasis and recurrence is pure carcinoma component

Treating Sarcomas

- Need for systemic treatment due to
  - Recurrence rate of at least 50% (even in early stage disease)
  - High rate of distant failures
  - RT therapy not very effective in sarcoma treatment
- Leiomyosarcoma
  - Common chemotherapy used Gemcitabine + Docetaxel (ORR 55%)
- Carcinosarcoma
  - Chemo - Carboplatin / paclitaxel +/- RT
  - Chemo - Ifosfamide / paclitaxel
- Endometrial Stromal Sarcoma
  - Chemo
    - Carboplatin / paclitaxel, doxorubicin, cisplatin, ifosfamide, docetaxel / ifosfamide
Prognosis
- Leiomyosarcoma
  - 5 years survival 30-48%
- MMMT
  - Recurrence rate of 53% in early stage I and II
- ESS
  - If low grade then 5 year survival 82%

Carcinosarcoma Pearls
- Often present with tumor protruding through the cervical OS
- These tumors have a Carcinoma and sarcoma component
- Surgically staged disease
  - Omentum biopsy to rule out met disease on all
- Almost all patients treated with systemic chemo
  - Carboplatin / paclitaxel or Ifosfamide / paclitaxel
  - Consider RT after chemo complete

Endometrial Hyperplasia
- Commonly a consequence of unopposed prolonged estrogen stimulation
- Hyperplasia may regress if estrogen stimulation is removed
- Some hyperplasia coexist with or progress to invasive adenocarcinoma
- Probability of progression to adenocarcinoma is related to degree of architectural or cytologic atypia
Risk Factors
- Obesity
- Chronic Anovulation
- PCOS
- Tamoxifen use

Endometrial Hyperplasia
- Risk of progression to Cancer
  - Simple hyperplasia without atypia – 1%
  - Complex hyperplasia without atypia – 3%
  - Simple hyperplasia with atypia – 8%
  - Complex hyperplasia with atypia – 29%
- Cancer found in hysterectomy specimen in any patient with atypia on biopsy
  - 17-52%

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http://www.5minuteconsult.com
Treatment

- Megestrol acetate (megace)
  - 40-320 mg / day
- Medroxyprogesterone (provera)
  - 10-20 mg po for 10-14 days
- IUD device with levonorgestrel

Treatment

- Age
  - If reproductive use medical treatment
  - Surgical if postmenopausal or child bearing complete
- Histology
  - Atypia responds less commonly than without atypia

Follow up

- Endometrial sampling with biopsy or Dilatation & Curettage every 3 months until normal uterine tissue found
- TAH BSO +/- Staging if
  - Childbearing complete
  - Progression of disease on biopsy