Gynaecologic cancers: A clinician’s perspective

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Gynaecologic cancers are different

- Common
- Dangerous
- Extremely unpleasant
- Nonvital organs but close to the soul
- Responsive to modalities of surgery, chemotherapy and radiation
- High probability for recurrence
The types of malignancies

- Cervical
- Endometrial
- Ovarian
- Vulvar
- Vaginal
- Fallopian tube, peritoneum
- Sarcomas
- Gestational trophoblastic neoplasia
Staging

• FIGO I, II, III, IV system
• FIGO does speak to WHO and agencies: joint approach
• Treatment guidelines per stage widely discussed and dissected: attempted standardisation
Classification of disease

• WHO classification forms the basis
• Revised every two decades or so
• Most disease classified by histology
• GTD classified by tumour marker
• New descriptions of disease are quite common
Cervical cancer

• The most common cancer of women on our continent
• Caused by infection with H HR HPV (16,18,31,33,35,45)
• Can be detected in precursor stages though screening programmes
• Thus preventable by treatment of precursor lesions
Current dilemmas in screening

• Cytology has low sensitivity and specificity
• Uptake of public screening policy = <3%
• Limited number of cytologists
• Screening for H HR HPV is available, should be pursued
• PCR DNA or RNA testing: 400/day/technologist
• Consider change seriously
Proposed model: developing countries

• H HR HPV screening (16,18,31,33,35,45)
  – +: treat (poor follow up capacity)
  – --: Repeat after 5-10y
  – (other HR HPV +: surveillance)

• If still choose cytology: start at age 25y
  – LSIL, ASCUS: HPV triage: H HR HPV +: treat
  – HSIL: Treat 1-step technique
  – --: repeat after 5-10y (10% chance for CIN3+)
Treatment of premalignancies

- OPD: LLETZ: allows possibility for childbearing
- 95% clearance rate at 6-12 months
- May have increased rate of LBW infants
- Safe in HIV + patients
- Alternatives: Cone (PM pts, previous unsuccessful treatment) or hysterectomy (other gynae pathology, poor follow up potential, family completed)
Clinical features of cervical cancer

• Age range 30-100, << in HIV+ patients
• Most important symptom = abnormal bleeding +/- discharge, pain late
• Paraneoplastic symptoms NB: cachexia, anaemia, pyrexia
• St I (25%) st II (20%) st III (45%) st IV (10%)
Diagnostic elements

• Diagnosis on biopsy
• Staging requirements: (clinical)
  – Bloods, CXR and comorbid disease
  – Imaging: renal system, pa/ao nodes: US
  – Can use MR/CT; how to define parametrial extension? Pelvic and retroperitoneal disease
  – Cytology of urine / cystoscopy
Treatment of cervical cancer

- St IB: RHND
- St II-III: chemoradiation
- St IV: radicality of radiation depends on PS etc.
Assessment of recurrent cancer

- Most recurrences in pelvis, sidewall
- Clinical assessment
- Imaging: all modalities including PET CT
- EUA, endoscopy
- Confirmatory histology
Secondary treatment options

- Re-radiation: No
- Re-chemotherapy: can consider
- Re-surgery: rarely place for ultraradical surgery
- Fistula repair if needed
- Medical palliation
- Causes of death: cachexia, uremia, bleeding
Endometrial cancer

- Classically disease of older and obese women
- Increasing incidence worldwide
- Classification: Endometroid, clear cell, SPC
Diagnosis and workup

- Main complaint = postmenopausal bleeding
- Assessment of PMH: clinical, PAP smear, TVUS, endometrial sampling
- Comorbid disease and operability
- Imaging of lungs, renal, pelvis, nodes
- Surgical staging
Treatment options

• Stage I, III: TAH BSO washings
• Debate about nodes: >G1, >St IB: Pelvic (14% chance): unsure of benefit??
• Para-aortic: less commonly taken
• If St II: RHND
• Adjuvant radiotherapy for HR groups
• Limited role for chemotherapy
Imaging

• Preop: TVUS, staging tests; Can we predict LN involvement?
• MR, CT performed in some institutions
• Postop: most recurrences occur in vagina / pelvis
• Place for modern imaging in patients with recurrence
Ovarian cancer

- Increasing frequency
- Several classes: Epithelial, stromal, germ cell
- Epithelial: “Common”, high morbidity, mortality
- BRCA 1: 45% risk, BRCA 2: 6% risk
- Stromal: hormonally active
- Germ cell: children and adolescents, highly malignant
Diagnosis and workup

- Presumed systemic disease
- Surgical staging
- Pre-op assessment for comorbid disease
- Presents with distension, mass, ascites
- US criteria for possibly malignant: solid/semisolid, wall abnormalities, bilaterality, ascites
- CA 125 measurements
Screening

- If US is used, must operate on >45 women for 1 cancer
- If CA125 is used, must operate on >100 women for 1 cancer
- If combination is used still no predictive value
- Current studies: stratified CA 125 levels
- Best effort at present: early diagnosis
- Half diagnosed in St III
Treatment options

• Apparent stage I disease: staging laparotomy (TAH BSO washings nodes omentectomy biopsies) (25% will fall in St III)
• Apparent >stage I disease: Cytoreduction
• Inoperable: Interval debulking
• Fertility sparing: USO and staging
• Child with germ cell tumour: USO usually
• Plat Tax chemo x 6 courses if >St IB
Course of disease

• St I epithelial cancer is not curable disease
  – Recurrent ascites and tumour in pelvis and upper abdomen, metastases
  – In St III: 48% survive 48 months
  – Die of cachexia, intestinal obstruction, tumour growth
• Stromal very rare and may survive
• Germ cell very rare and most survive but lethal if >st I
Assessment of recurrent disease

• Role of imaging
  – US
  – CT
  – MRI
  – PET CT
  – What is correct test and place for which one or more?
Secondary treatment options and monitoring

• Second, third, fourth line chemo
• Sometimes secondary cytoreduction
• Ascites control
• Palliation

• Imaging and CA 125 together with clinical reassessment and follow up
Cancer of the vulva

- Rare tumours
- Bimodal presentation: HIV and HPV linked in young patients; dystrophy linked in older patients
- Ulcer/exophytic
- Pattern of spread: local > Groin nodes > pelvic and para-aortic nodes. Rarely hematogenous
- Sentinel node is applicable
Assessment

- Histologic diagnosis
- Clinical / surgical staging
- Comorbid disease
- Link with cervical cancer
- Imaging of pelvis for nodes
- Sentinel node may be used in older or frail pts
Treatment options

• Classic = RV BGLND
• Lesser variations for lesser disease
• Postoperative radiation for involved nodes, margins
• For massive disease exenterative surgery can be contemplated
• Radiation followed by surgery as sphincter sparing procedure?
Course of disease

• Good outcome in St I, II
• With involved nodes prognosis drops
• If pelvic nodes are involved, expect <1y survival
• Local recurrences can usually be resected
• Central recurrences are lethal
Vaginal cancer

- Rare cancer but caused by H HR HPV
- More common in HIV infected persons
- Has a precursor
- Stage for stage worse survival than CaCx
- Surgery has more limited role, radiation is most important modality
- For imaging etc like CaCx
Fallopian tube and peritoneal cancers

- Is this the origin of ovarian cancer?
- In itself rare
- Presents like ovarian cancer
- Assessment and treatment same
- Less responsive to chemotherapy
- Imaging issues same as for ovarian cancer
Genital sarcomas

- All organs may develop sarcomas
- Uncommon
- Range from LMP to highly malignant
- Own staging system these days
- Surgery is mainstream treatment modality
- Radiation: less local recurrence, no change in mortality
- Chemoherapy has little impact
GTD: a unique disease

- Pregnancy: 2 Y chromosomes
- Partial: with fetal tissue; complete: with placental tissue
- Presentation: often edges of reproductive life
- Presents as: miscarriage, uterine dates, pre-eclampsia, hyperthyroidism: US image
- First line management: suction evacuation
- Then metastatic assessment: PV, CXR: staging
GTD

• Then: marker follow-up: beta hCG has to decrease (usually over 3 months)
• If decrease: molar pregnancy: OK
• If curve flattens/rises: GTN: chemotherapy
• If metastases: chemotherapy
• If ‘hot’ persistence in uterus: surgery
• (choriocarcinoma = histologic term)
HR for persistence

- Large uterus
- Very high b hCG
- Theca-lutein cysts
- Other symptoms, signs of hyper-b hCG
Complications

• Severe haemorrhage (packing, embolisation, surgery)
• Malignant course
• Metastases: pelvis, lung, liver
• Chronic persistent raised hCG
• Hot areas, recurrence

• Related diseases: placental site TD