

Gynaecologic cancers: A clinician's perspective

BG Lindeque

November 2010

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 through 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: Endometrioid, 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
- Chemotherapy 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, ut>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