The Role of Surgery in Gynaecological Cancers in Africa

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No Conflict of Interest
Key messages

• Resources used for best outcome
• Cervical cancer
  – Careful pre-operative assessment
• Endometrium
  – PLND may help in selected cases
• Ovarian cancer
  – Surgery as early as possible (the role of NACT)
• Vulvar cancer
  – Beware the groins
Access to surgery is a problem

Meara. Lancet 2015 386:9993
Primum non nocere
First, do no harm

- Decision making for surgery is often the weakest link in the chain of quality of care
- Decisions are often left to junior, inexperienced clinicians
- Multidisciplinary meetings
The Pathologist

Number of People Served By Each Pathologist in Sub-Saharan Africa

- No Active Pathologist
- >5.0 million
- 2.5-5.0 million
- 1.0-2.5 million
- 500,000-1 million
- 200,000-500,000
- Data Not Available

Number of People Per Pathologist:
UK*: 15,108
US**: 19,232

Ca Cx: Factors Affecting Prognosis

- Tumour volume
- Depth of stromal invasion
- Lymphovascular space involvement
- Parametrial invasion
- Nodal metastases
- Resection margins status
## Node Metastasis

<table>
<thead>
<tr>
<th>Stage</th>
<th>Pelvic</th>
<th>Para-aortic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia₁</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Ia₂</td>
<td>4.8 – 7</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Ib</td>
<td>15.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Ila</td>
<td>24.5</td>
<td>11</td>
</tr>
<tr>
<td>IIb</td>
<td>31.4</td>
<td>19</td>
</tr>
<tr>
<td>III</td>
<td>44.8</td>
<td>30</td>
</tr>
<tr>
<td>IVa</td>
<td>55</td>
<td>40</td>
</tr>
</tbody>
</table>
## Horizontal Width

<table>
<thead>
<tr>
<th>Horizontal width of lesion (stromal invasion &lt;5 mm)</th>
<th>Positive pelvic nodes (%)</th>
<th>Recurrence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;7 mm</td>
<td>7.4</td>
<td>4.2</td>
</tr>
<tr>
<td>&lt;7 mm</td>
<td>2</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Falconer 2006
## Lymph Vascular Invasion

<table>
<thead>
<tr>
<th>Stage</th>
<th>LVI</th>
<th>Lymph nodes %</th>
<th>Recurrence %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a1</td>
<td>Pos</td>
<td>4.7</td>
<td>4.6</td>
</tr>
<tr>
<td></td>
<td>Neg</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>1a2</td>
<td>Pos</td>
<td>11.1</td>
<td>17.4</td>
</tr>
<tr>
<td></td>
<td>Neg</td>
<td>3.4</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Falconer 2006
Radicality tailored to stage and LVSI

- $1a_{1-2}$ cone or simple hysterectomy
- LVSI (even in $1a_1$) lymph node sampling (SLN?)
- $1a_2$ or small volume $Ib_1$ omit nodes?
  - Retrospective pathology analysis 103 pts
  - $\leq 2$ cm diameter, $< 1$ cm invasion
  - Only parametrial in 2 LVSI+ pts
  - ? Cone and nodes in small $Ib_1$ with LVSI-

- $1b_1$ Radical surgery with PLND

Stegeman 2007
Resources Determine Management

Management and Care of Women With Invasive Cervical Cancer: American Society of Clinical Oncology Resource-Stratified Clinical Practice Guideline

• In basic and limited resource settings NACT and surgery for locally advanced stage

Chuang. Journal Global Oncology. 2016 2:5
Limit use of 2 modalities

• Limit toxicity
• 50-80% with IB2 Ca cx (>4 cm) require post-operative radiation
• Preferred approach is definitive chemo-radiation (NCCN v3, 2013)

**Sedlis Criteria (RT alone)**
- At least 2.
- +LVSI, Deep stromal invasion (>1/3), tumor >4 cm, Adenocarcinoma

**Peters Criteria (Chemo and RT)**
- "3 p’s"
- +Positive Margins
- +Parametria Involvement
- +Positive Lymph Nodes
Endometrial cancer

• Obesity and other co-morbid conditions
• Generally LND not therapeutic but helps with adjuvant therapy and accurate staging
• Use radiotherapy and chemotherapy wisely
Indications for PLND

- Grade III
- Grade II tumours > 2cm
- Clear cell/papillary serous carcinomas and carcinosarcoma
- >50% myometrial invasion on imaging
- Cervical involvement
Ugly sisters

Stepmom
# US/UCT Recommendations

<table>
<thead>
<tr>
<th>Stage</th>
<th>RT</th>
<th>CTx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia G1+G2</td>
<td>Observe</td>
<td>No</td>
</tr>
<tr>
<td>Ia G3 + Ib G1-3</td>
<td>VBT</td>
<td>High risk histology</td>
</tr>
<tr>
<td>II</td>
<td>VBT if node negative/ EBRT+ VBT if nodes not taken</td>
<td>High risk histology</td>
</tr>
<tr>
<td>IIIa/b Grade 1</td>
<td>EBRT +/- VBT</td>
<td>No</td>
</tr>
<tr>
<td>IIIa/b Grade 2+3/ IIIc</td>
<td>VBT</td>
<td>Yes</td>
</tr>
<tr>
<td>IVa</td>
<td>Palliative high dose EBRT</td>
<td>Consider</td>
</tr>
<tr>
<td>IVb</td>
<td>Palliative short course</td>
<td>Consider</td>
</tr>
</tbody>
</table>
Aim of Ovarian Cancer Surgery

• To make the diagnosis
• Accurate surgical staging
• Cytoreduction
• Palliation
• To prepare patient for chemotherapy!
Theoretic Principles

• Physiological benefits
  – Less ascites production
  – Alleviates nausea and anorexia
  – Reduce the likelihood of bowel obstruction

• Tumour perfusion and cell kinetics
  – Poor blood supply reduce effect of chemotherapy
  – Low growth fraction in bulky tumours (G0)
  – Fractional cell-kill hypothesis
• Patients >1 cm disease after primary surgery
• 3x chemotherapy
• Randomised to surgery or further chemotherapy
• Median improved survival 6 m surgery arm
• Surgery reduced death by 33 % (95 CI 10-50% p=0.008)

• Randomly assigned stage IIIC or IV EOC to PDS followed by chemotherapy or to neo-adjuvant chemo x3 followed by interval debulking
• Better rates of optimal cytoreduction
• Less morbidity, ICU
• Neo-adjuvant approach not inferior PFS
When to use NACT?

- Primary debulking surgery preferred
- Massive ascites
- Elderly, frail
- No ICU when needed
- Long surgery waiting time
- Refer to surgery timeously
- Multidisciplinary approach key to success
Patient Selection is Critical

• Make presumptive diagnosis of Ov ca:
  – Clinical symptoms (pelvi-abdominal mass or imaging suggestive of ovarian cancer)
  – Histological or cytological cancer - ascitic tap or biopsy
  – Elevated CA 125 > 500

• If unable: Endoscopy e.g. laparoscopy or colonoscopy or laparotomy or refer to unknown primary
Early stage Vulvar Ca
Beware the Groins

• Groin node recurrence poor survival
• Disease without nodal involvement - OS 90%
• However, in patients with nodal involvement, 5-year OS rate is 50% to 60%


• Surgery to remove nodes for diagnosis and prognosis (GOG 88 showed RT not enough)

Advanced Vulvar Cancer

- Chemo-radiation of primary lesion appears to be associated with decreased morbidity and acceptable long-term outcomes
Pet CT

- Usually stepwise spread in squamous carcinoma
- May help to identify pelvic nodal involvement in locally advanced disease
- But, rare disease – difficult to interpret moderate FDG uptake
- Watch the space
Conclusion

• Team work

Surgery =