Hysterectomy and oophorectomy with en-bloc resection of recto-sigmoid and colorectal anastomosis

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First Stitches at Niguarda Hospital – Dr Dario Maggioni
What is here for me?

- Rate of Bowel Invasion in Ovarian Cancer
- Surgical Steps
- Complications and Patient Selection
Bowel Resection for Maximal Cytoreduction:
We Need to be Ready … but not for Every Patient
RATE OF BOWEL INVASION IN OVARIAN CANCER
Gastrointestinal Surgery in Patients with Ovarian Cancer

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Raymond A. Lee, M.D.,* and Timothy G. Lesnick, M.S.†

Table 1
Primary cytoreduction: % colon resection

<table>
<thead>
<tr>
<th>Study</th>
<th>Total N</th>
<th># of colon resections</th>
</tr>
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<tbody>
<tr>
<td>Obermeir (2001) [12]</td>
<td>456</td>
<td>65</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1640</td>
<td><strong>429 (26%)</strong></td>
</tr>
</tbody>
</table>

Surgical teams should be trained accordingly.

Hoffman 2008
Bowel Resection for Maximal Cytoreduction: We Need to be Ready
I should have learned before how to deal with alligators … or I should have called an alligator hunter in advance …
HYSTERECTOMY + OOPHORECTOMY

RECTO-SIGMOID RESECTION AND ANASTOMOSIS
Fellows’ Cadaver Lab
SURGICAL STEPS

Pelvic Peritoneal Stripping

Opening of Surgical Spaces
Open Peritoneum and Spaces
Bladder peritoneum dissection

Line of incision distal to metastatic tumor

Tied end of round ligament

Ovarian tumor
SURGICAL STEPS

Mobilization of the Rectum and of the Tumor Mass
Low Anterior Resection
SURGICAL STEPS

Hysterectomy + Oophorectomy
Mimic adhesion
Uterus
Ureter
Pre-sacral space
SURGICAL STEPS

Definition of the Margins of Bowel Resection
Uterus attached to the rectum

Vagina (needs to be closed)
Free Margins: 3-5 cm

Ligated superior rectal vessels
SURGICAL STEPS

Bowel Resection
Recto-sigmoid Resection in Advanced Ovarian Cancer

71-82% positive mesenteric lymph nodes

Suggest removal of mesentery IMA

Baiocchi 2011
Salani 2007
SURGICAL STEPS

Bowel Mobilization
Mobilization of Splenic Flexure

- Divided gastrocolic lig
- Divided base of transverse mesocolon
- Divided phrenocolic lig
- Pancreas (edge exposed)
- Kidney (under fat)
- Duodenum
- Quadratus lumborum m (under fat)
- Cut edge of peritoneum
- Aorta
- Ureter
- Ovarian vessels
- Reflected descending mesocolon
- Cut edge of peritoneum on descending colon
- Sigmoid colon

Greater omentum
Stomach
SURGICAL STEPS

Bowel Anastomosis
Proximal Bowel End
Bubble Test
Bowel Resection for Maximal Cytoreduction:
We Need to be Ready … but not for Every Patient
Surgical Complications and Patient Selection
Risk factors for anastomotic leak after recto-sigmoid resection for ovarian cancer

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Received 28 February 2006
Available online 23 June 2006

Overall 0.8-7% Anastomotic Leak

- Albumin $\geq$ 3.0 g/dL: 3%
- Albumin < 3.0 g/dL: 21%  
  Obermair 2001
  Mourton 2005
How Much Optimal is Optimal?

The aim is
RD = 0

DuBois 2009
RD Makes the Difference Independently from Age

Median survival by age and residual disease. [Median survival shown in years (range)]

Mayo Clinic 2010 – Cliby, Langstraat
Prospective analysis of nutritional factors responsible for poor outcomes after primary treatment of advanced ovarian cancer.

Complexity of surgery and peri-operative outcomes by age.

Patients in each age group have similar tumor burden, however the older patients undergo less aggressive surgery, have a greater amount of residual disease yet still have an increased amount of surgical morbidity.

<table>
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<tr>
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<th>Age 65-74</th>
<th>Age ≥ 75</th>
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<tbody>
<tr>
<td>30 days morbidity</td>
<td>32 (21)</td>
<td>34 (34)</td>
<td>0.0228</td>
</tr>
<tr>
<td>3 month mortality</td>
<td>6 (4)</td>
<td>25 (25)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Inability to receive chemotherapy</td>
<td>4 (3)</td>
<td>29 (30)</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Mayo Clinic 2010 – Cliby, Langstraat
Age $\geq 75$
Age ≥ 75
Mayo Clinic Data
Predictors of M&M after Debulking Surgery for Ovarian Cancer

- Albumin < 3.0
- Age > 70
- Stage IV
- ASA > 2

Mayo Clinic 2007-09, Aletti and Cliby
Conclusions
Bowel Resection for Maximal Cytoreduction: We Need to be Ready .. But not for Every Patient

• Bowel surgery needed in ¼ OvCa patients

• Needed expertise in the hospital

• Caution for malnourished / old patients

• Unclear role of mesosigmoid resection
Thank you

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