Ovarian cancer: clinical practice – the Arabic perspective

Experience of Hôtel-Dieu de France University Hospital (Beirut, LEBANON) in supraregional surgery for ovarian cancer

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Ovarian cancer

- Standard of care=

- Primary cytoreductive surgery followed with chemotherapy based on platins and paclitaxel

Role of aggressive surgical cytoreduction in advanced ovarian cancer.
Chang SJ¹, Bristow RE², Chi DS³, Cliby WA⁴.

Abstract
Ovarian cancer is the eighth most frequent cancer in women and is the most lethal gynecologic malignancy worldwide. The majority of ovarian cancer patients are newly diagnosed presenting with advanced-stage disease. Primary cytoreductive surgery and adjuvant taxane- and platinum-based combination chemotherapy are the standard treatment for advanced ovarian cancer. A number of studies have consistently shown that successful cytoreductive surgery and the resultant minimal residual disease are significantly associated with survival in patients with this disease. Much has been written and even more debated regarding the competing perspectives of biology of ovarian cancer versus the value of aggressive surgical resection. This review will focus on the current evidences and outcomes supporting the positive impact of aggressive surgical effort on survival in the primary management of ovarian cancer.
Fig. 1. Overall survival, stage IIIIC ovarian cancer, 1989–2003.
Cytoreductive Surgery : Principles

- Complete Resection of the carcinosis (R0)
- Pelvic exenteration in one bloc
- Bowel resection
- Upper abdominal surgery (supramesocolic)
- Extensive lymphadenectomy
Pelvic exenteration/ Cytoreduction

• Resection in one bloc without tumor spillage, free margins
  – Radical hysterectomy with bilateral adnexectomy
  – Ureteral dissection
  – Rectosigmoid resection
  – Peritoneal stripping
Hysterectomy with double adnexectomy and peritoneal stripping (resection in one bloc)
Pelvic exenteration with peritoneal stripping
Prevesical peritoneum with carcinosis
Posterior exenteration with peritoneal stripping
Pelvic exenteration with peritoneal stripping in one bloc
Bowel resection
Total colectomy with ileal resection
Upper abdominal surgery

- Diaphragm Stripping
- Splenectomy with caudal pancreatectomy
- Omentectomy
Left diaphragmatic cupola after stripping and splenectomy
Right diaphragmatic cupola after stripping
Splenectomy and omentectomy in one bloc
Splenectomy and caudal pancreatectomy
Splenectomy and caudal pancreatectomy
Great curvature of the stomach after infragastric omentectomy
Lesser curvature of the stomach after resection of carcinosis at the level of lesser omentum
Control of disease and resection of micronodules at the level of the mesentery
Pelvic and para-aortic lymphadenectomy
Our study

• Retrospective study
• Concerning 139 patients
• Undergoing cytoreductive surgery for primary or recurrent disease
• Primary or interval debulking
• Between January 2004 and September 2017 at Hôtel-Dieu de France University Hospital
Objectives

• To define predictive factors of better survival and delayed recurrence in ovarian cancer patients undergoing a cytoreductive surgery
Results

Age
- < 50 ans: 27%
- > 50 ans: 73%

Menopause
- No: 29%
- Yes: 71%
Debulking

- Primary Debulking: 40.3
- Interval Debulking: 43.2
- Debulking post Recurrence: 6.5
- Debulking post incomplete primary surgery: 10.1
Mean number of removed lymph nodes (pelvic and para-aortic) = 57 LNs
Bowel resection

- Yes: 53%
- No: 47%
Upper abdominal surgery

62.6 %

37.4 %

No
Yes
Recurrence

- No recurrence: 56%
- Recurrence: 44%

Interval of recurrence

- > 12 months: 73.3%
- 6-12 months: 20.0%
- < 6 months: 6.7%
Primary vs. interval debulking

<table>
<thead>
<tr>
<th>Mean Survival (months)</th>
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<tbody>
<tr>
<td>Primary Debulking</td>
</tr>
<tr>
<td>42 months</td>
</tr>
<tr>
<td>Interval Debulking</td>
</tr>
<tr>
<td>36 months</td>
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</tbody>
</table>

P = 0.63
Primary vs. interval debulking

- Primary Debulking:
  - Recurrence: 28.60%
  - No Recurrence: 71.40%

- Interval Debulking:
  - Recurrence: 61.00%
  - No Recurrence: 39.00%

P = 0.005
Factors for survival
Survival and age

P = 0.03
Survival and stage of disease

Survival Functions

Cum Survival

Survival (Months)

P = 0.000
Total number of removed lymph nodes

P = 0.022
Survival and nodal status

\[ P = 0.001 \]
Number of positive lymph nodes

Survival Functions

Cum Survival

Survival (Months)

P = 0.000
Lymph node ratio

P = 0.000
Recurrence
Recurrence and nodal status

P = 0.27
Recurrence and stage of the disease

![Bar chart showing recurrence rates for different stages of the disease. The chart indicates that recurrence is more common in later stages, with Stage IV having the highest recurrence rate. The statistical significance is noted as P = 0.000.]
Complication factors
# Lymphadenectomy

<table>
<thead>
<tr>
<th></th>
<th>Lymphadenectomy</th>
<th>No Lymphadenectomy</th>
<th>P-value</th>
</tr>
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<tbody>
<tr>
<td>postoperative complications</td>
<td>45%</td>
<td>50%</td>
<td>0.69</td>
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<tr>
<td>rate</td>
<td></td>
<td></td>
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<tr>
<td>mean Transfusion (Nb units)</td>
<td>2.58</td>
<td>2.69</td>
<td>0.845</td>
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<td>mean operative time (hours)</td>
<td>7.3</td>
<td>5</td>
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</table>
Impact of fistula on survival

P = 0.015
### Predictive factors of fistula

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<tr>
<th>Factor</th>
<th>Fistula rate (%)</th>
<th>P-value</th>
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<tr>
<td>Number of anastomoses</td>
<td></td>
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</tr>
<tr>
<td>One anastomosis</td>
<td>6.80</td>
<td>0.000</td>
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<tr>
<td>Multiple anastomosis</td>
<td>57.10</td>
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<tr>
<td>Obesity</td>
<td></td>
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<tr>
<td>Non-obese</td>
<td>13.13</td>
<td>0.46</td>
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<tr>
<td>Obese</td>
<td>6.30</td>
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<td>Comorbidities</td>
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<tr>
<td>Yes</td>
<td>7.70</td>
<td>0.585</td>
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<td>No</td>
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<td>Neoadjuvant chemotherapy</td>
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<td>12.20</td>
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<td>No</td>
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<td>Lymphadenectomy</td>
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<tr>
<td>No</td>
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<td>Parenteral hyperalimentation</td>
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<td>Colostomy</td>
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<td>Yes</td>
<td>0</td>
<td>0.443</td>
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<td>Protective ileostomy</td>
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<td>0.34</td>
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<tr>
<td>No</td>
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Conclusion

• Better survival were seen:
  – In younger patients
  – In case of primary (upfront) cytoreductive surgery
  – In early stages
  – When more than 57 lymph nodes were removed
  – In the presence of only one positive lymph node
  – In case of Lymph node ratio ≤ 0.03
  – In case of negative lymph node status
Thank You