Locally Advanced Breast Cancer
Specific Issues in Locorregional Treatment Surgery

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Conflict of Interest Disclosure

- No financial relationships to disclose
Dealing with different locorregional presentation and different biology

Tryfonidis K, Senkus E, Cardoso MJ, Cardoso F.
Heterogeneity of LABC in staging

- Breast cancer >5 cm,
- Four or more pathologically involved axillary nodes in the axilla, IM or IC/SC,
- Disease extending to the chest wall or skin (T4),
- Inflammatory breast cancer (T4d)

<table>
<thead>
<tr>
<th>Stage</th>
<th>T2</th>
<th>N1</th>
<th>M0</th>
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<tbody>
<tr>
<td>Stage II</td>
<td>T3</td>
<td>N0</td>
<td>M0</td>
</tr>
</tbody>
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| Stage IIIA | T0  | N2  | M0  |
|            | T1* | N2  | M0  |
|            | T2  | N2  | M0  |
|            | T3  | N1  | M0  |
|            | T3  | N2  | M0  |

| Stage IIIB | T4  | N0  | M0  |
|            | T4  | N1  | M0  |
|            | T4  | N2  | M0  |

| Stage IIIC | Any T | N3  | M0  |
Heterogeneity of LABC
Heterogeneity of LABC

Stage IIIB

Stage IIIC

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Locorregional approach

- Operable
- Inoperable
- Inflammatory
ABC STATEMENTS FOR LABC

For the purpose of these recommendations, LABC means INOPERABLE, NON-METASTATIC LOCALLY ADVANCED BC
BEFORE starting any therapy, a core biopsy providing histology and biomarker (ER, PR, HER-2, proliferation/grade) expression is indispensable to guide treatment decisions. (LoE: I B) (97%)

Since LABC patients have a significant risk of metastatic disease, a full staging workup, including a complete history, physical examination, lab tests and imaging of chest and abdomen (preferably CT) and bone, prior to initiation of systemic therapy is highly recommended. (LoE: I B) (100%)

PET-CT, if available, may be used (instead of and not on top of CTs & bone scan). (LoE: II B) (100%)
Systemic therapy (not surgery or RT) should be the initial treatment.

If LABC remains inoperable after systemic therapy and eventual radiation, “palliative” mastectomy should not be done, unless the surgery is likely to result in an overall improvement in quality of life.

(LoE: Expert opinion) (100%)

A combined treatment modality based on a multidisciplinary approach (systemic therapy, surgery and radiotherapy) is strongly indicated in the vast majority of cases. (LoE: I A) (100%)
Level of evidence ?????? (MDT) expert opinion

“At our last meeting, it was unanimously agreed to form a cult that worships coffee and doughnuts.”
Objectives

- Conversion of patients with inoperable tumors to operable
- Local control of disease aiming at the highest possible QOL
Evaluation prior to primary systemic therapy for LABC

- Natural history of the disease (rapid growing <6 months versus neglected tumours)
- Clinical examination:
  - Clinical size of tumor
  - Skin changes: erythema, edema, ulceration, and dimpling
  - Lymph node status (imaging)
- Photo documentation (inflammatory, T4’s...)
Evaluation prior to primary systemic therapy for LABC

- Pathology: CORE BIOPSY!
  - FNA cytology is not acceptable anymore! (except for N disease)
  - Full assessment of grade, invasion (LV), ER, PR, Her2, Ki67
- Adequate local breast imaging: extent of disease – breast and axilla
  - Mammography – very informative in IBC
  - Ultrasound for T and mostly N
  - MRI important when aiming at a possible BCT and when other forms are non-informative
- Clip/Tattooing placement at dg (for surgery & pathology!)
- Staging: X-ray, blood tests (CBC, liver, AP) bone scan, abdominal
- IBC – Punch biopsies ???? (high number of false negatives)
Should always be an MDT decision

Before starting treatment and much more frequently evaluated
Ten years passed but the rational stays the same except for the addition of anti Her2 therapies or new drugs in a clinical trial setting. There is however no answer for the minority of those that in the end still have no response.

*Update on LABC, Giordano 2003*
*The Oncologist 2003; 8:521-530*
Surgery after primary chemotherapy / radiotherapy

- Type of surgery
  - MRM for all LABC ?!

- Criteria for breast conservation (Singletary, Cancer Treat Res 1997)
  - Resolution of skin edema
  - Residual tumor size <5 cm
  - Absence of extensive breast lymphatic invasion
  - Absence of extensive suspicious microcalcifications -> MRM
  - No evidence of multicentricity -> MRI
  - Tumor biology? (more local recurrences)
The importance of an accurate initial assessment of the extent of primary tumor burden cannot be overemphasized since the efficacy of subsequent local treatment will depend mostly on this initial assessment.
Criteria for mastectomy

- IBC
- Persistence of skin edema
- Residual tumor size > 5 cm (Oncoplastic techniques)
- Presence of extensive suspicious microcalcifications - >mammography, MRI
- Evidence of multicentricity-> MRI
- Tumor biology ???? (radioresistant tumors)
If mastectomy – Immediate or Delayed Breast Reconstruction

- Not IBR if IBC
- If local control is not attained and the intention is tumor debulking unless reconstruction to cover large skin defects in extreme cases
- Radiotherapy will almost always be used
- Avoid implant based reconstruction
- Reconstruction before or after radiotherapy (no difference in Cosmetic Outcome LoE: III)
Local recurrence in LD autologus flap – IBR in IBC
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Abandoned advanced breast cancer in an old patient: A difficult challenge
BREAST JOURNAL 2005. VL 11; IS 2:151-152

80, HR +++, Her2 negative, Grade 1

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LABC – Clinical/US N0 Disease

- Pre-treatment SNB and post treatment SNB in inoperable LABC (T4) even with N0 (clinical and US) axilla should not be standard of care.

Clinical significance of a false negative SLN more relevant as the denominator of node positive patients becomes larger.

What is the burden of axillary disease after neoadjuvant therapy in women with locally advanced breast cancer? C. Cox et al. Current Oncology—Volume 20, Number 2, April 2013
LABC – Clinical/US N positive Disease

- Any patient found to have N2 or N3 nodal metastases by any technique, pre- or post-chemotherapy, should receive a completion axillary node dissection

- Current data are insufficient to identify patients who do not need axillary specific treatment in inoperable LABC

- IBC should always receive standard axillary dissection
Conclusions:

- Treatment of inoperable LABC should always be an MDT decision.
- Every member of the team involved in clinical evaluation during treatment (if disease progresses in spite of everything at some point; tumour resection – debulking- if possible, may be useful to improve QOL.
- BCT is option in highly selected patients.
- When immediate reconstruction is considered: count on radiotherapy before choosing the technique and decide timing.
Conclusions:

- IBC should be surgically treated with Mastectomy and axilalary dissection
- Delay reconstruction in IBC and in LABC non inflammatory, when you think it will pose problems in timing or planning of radiotherapy
- For the time being treat the axilla as positive