Locally Advanced Breast Cancer
Specific Issues in Locorregional Treatment
Surgery

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Conflict of Interest Disclosure

- No financial relationships to disclose

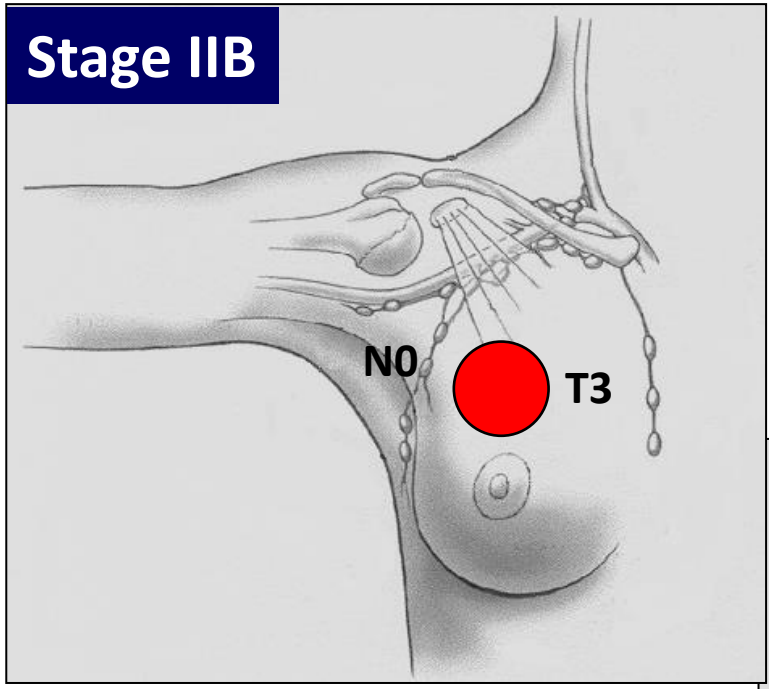
Dealing with different locorregional presentation and different biology

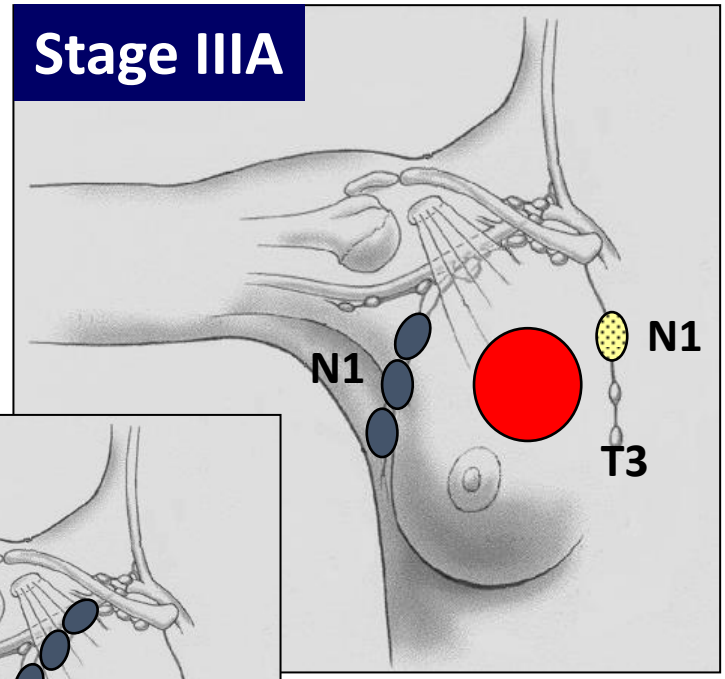
Nat Rev Clin Oncol. 2015 Mar;12(3):147-62.
Management of locally advanced breast cancer-perspectives and future directions.
Tryfonidis K, Senkus E, Cardoso MJ, Cardoso F.

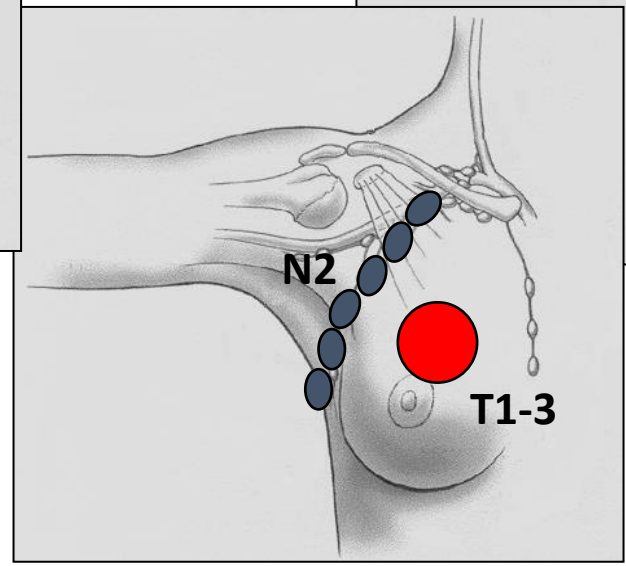
Heterogeneity of LABC in staging

- 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)

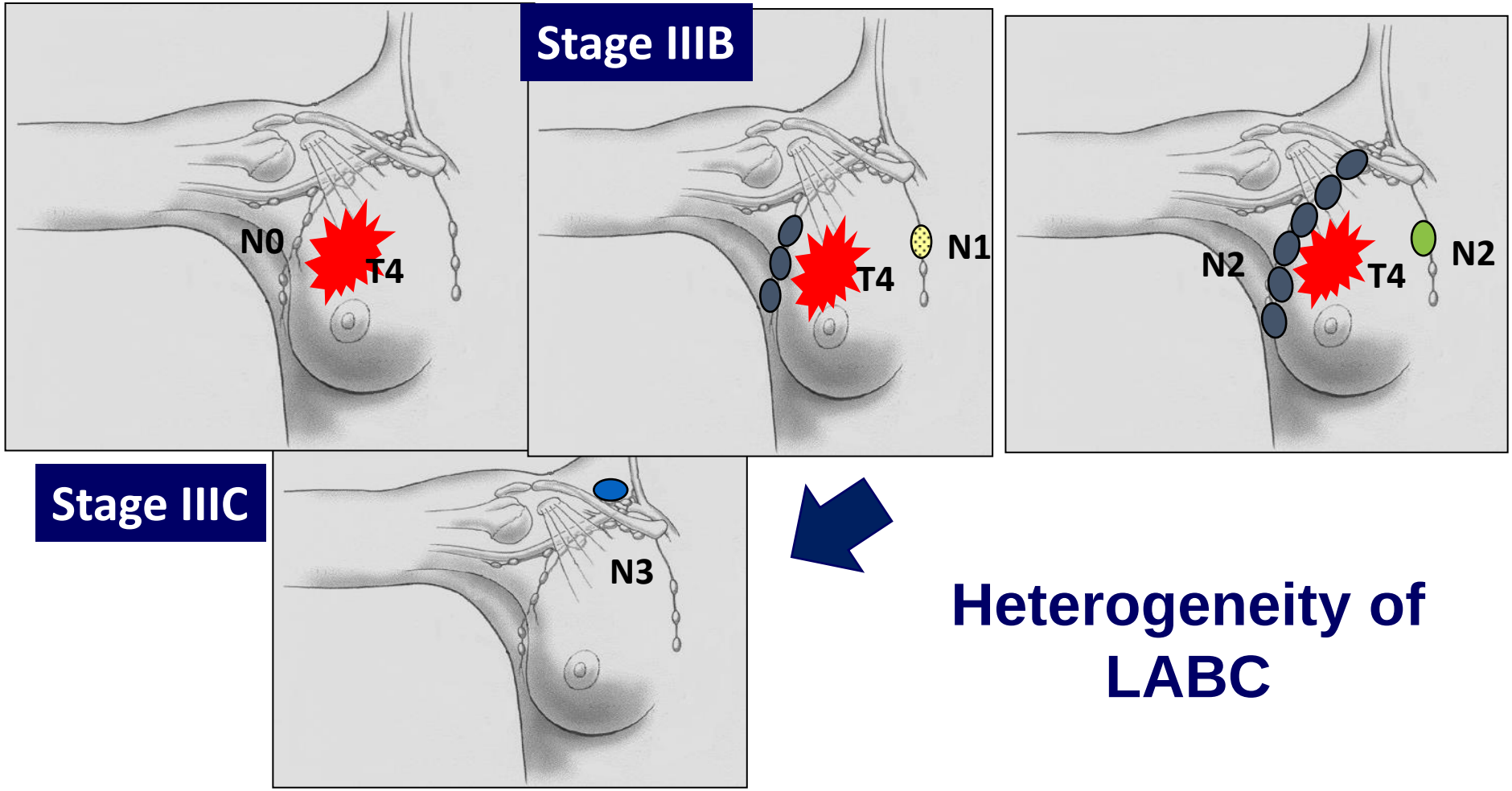
Stage IIB	T2	N1	M0
	T3	N0	M0
Stage IIIA	T0	N2	M0
	T1*	N2	M0
	T2	N2	M0
	T3	N1	M0
	T3	N2	M0
Stage IIIB	T4	N0	M0
	T4	N1	M0
	T4	N2	M0
Stage IIIC	Any T	N3	M0







Heterogeneity of LABC



Heterogeneity of LABC

Locorregional approach

- Operable

- Inoperable

- Inflammatory

ABC STATEMENTS FOR LABC

For the purpose of these recommendations, LABC means INOPERABLE, NON-METASTATIC LOCALLY ADVANCED BC

LOCALLY ADVANCED INOPERABLE BC (LABC)

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%)

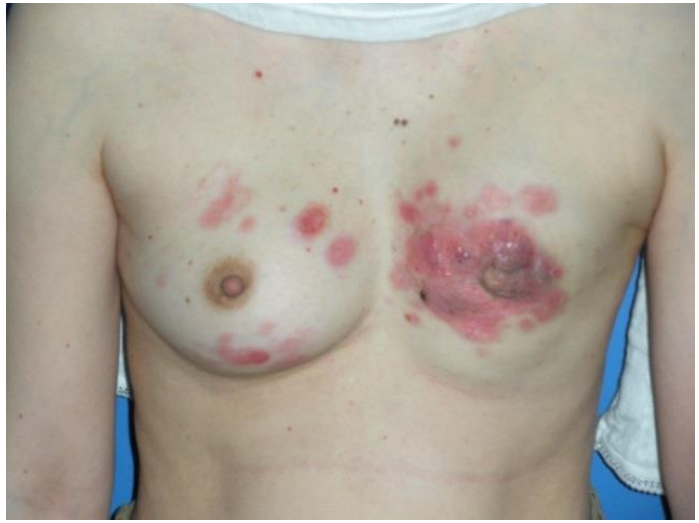
PET-CT, if available, may be used (instead of and not on top of CTs & bone scan). (LoE: II B) (100%)

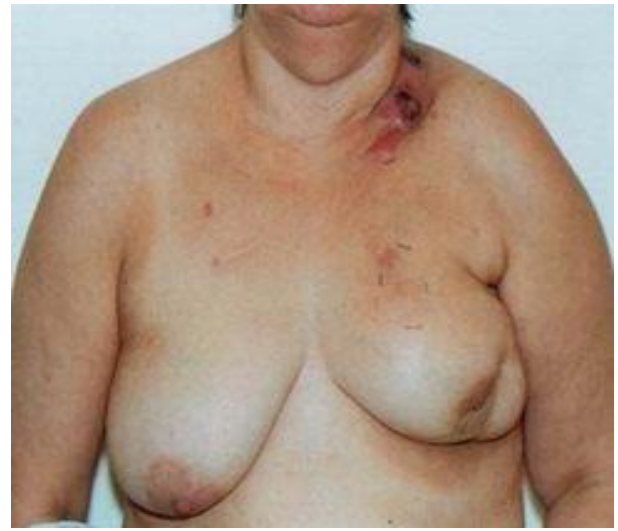
LOCALLY ADVANCED INOPERABLE BC (LABC)

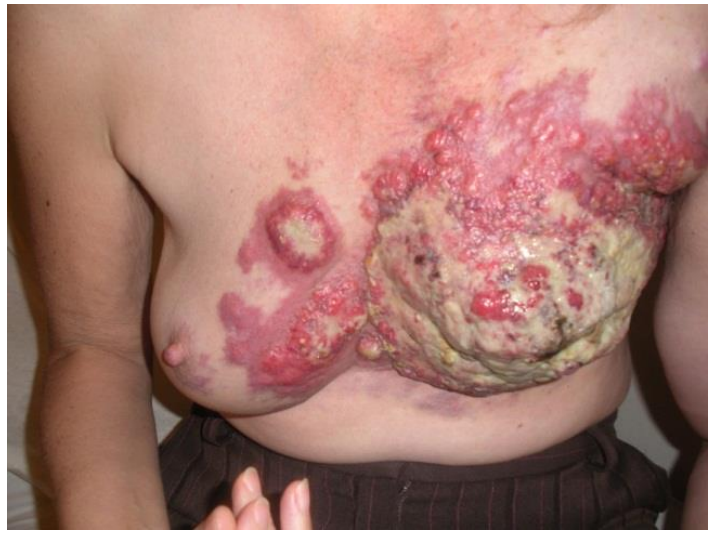
Systemic therapy (not surgery or RT) should be the initial treatment.

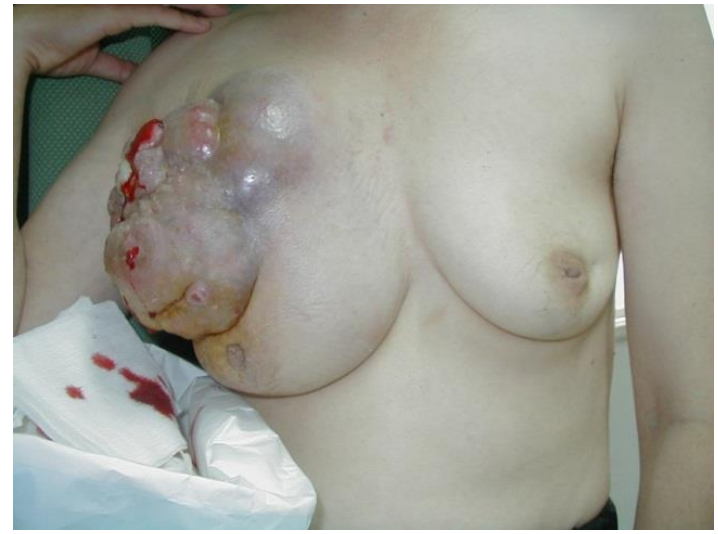
If LABC remains inoperable after systemic therapy and eventual radiation, “palliative” mastectomy should not be done, unless the surgery is likely to result in an overall improvement in quality of life.
(LoE: Expert opinion) (100%)

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%)







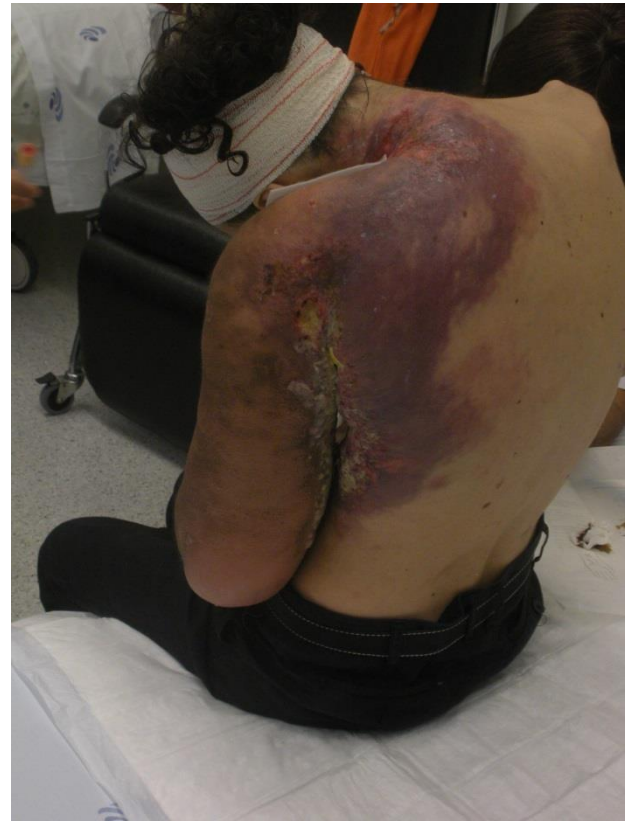


Level of evidence ????? (MDT) expert opinion

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

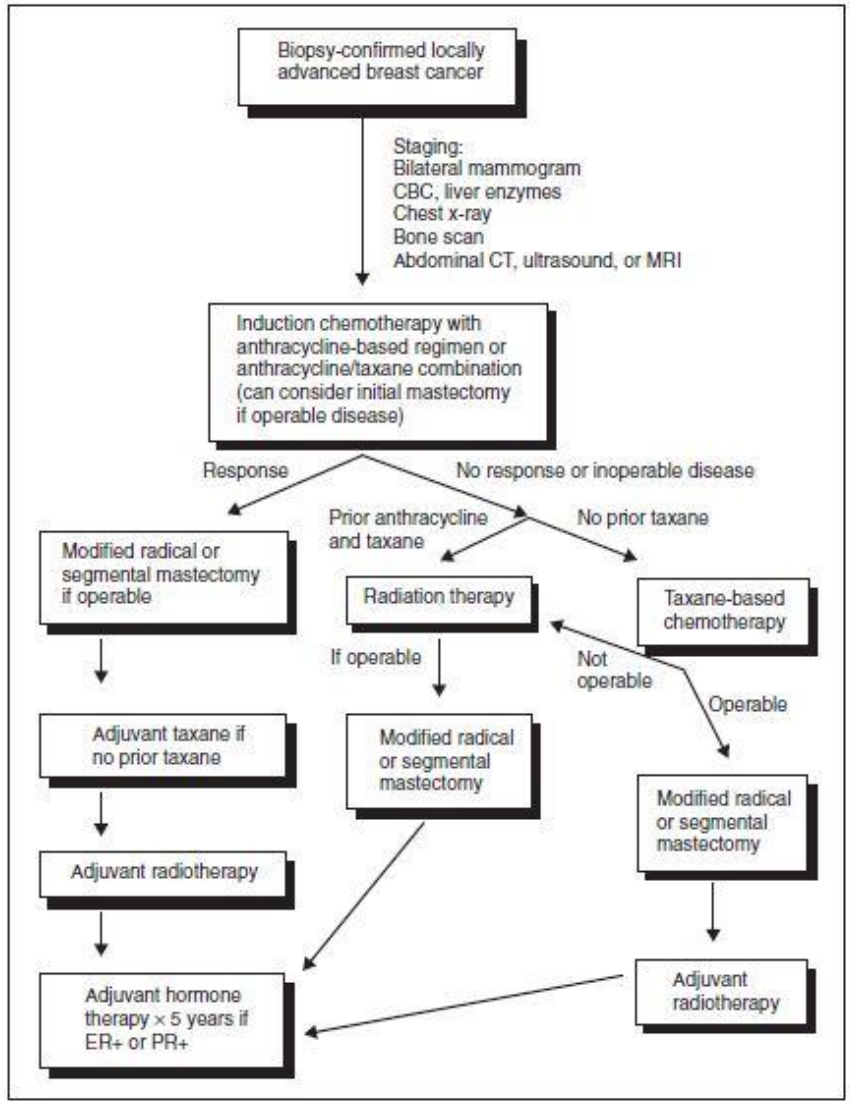
- Natural history of the disease (rapid growing <6 months versus neglected tumours)
- Clinical examination:
  - -Clinical size of tumor
  - -Skin changes: erythema, edema, ulceration, and dimpling
  - -Lymph node status (imaging)
- Photo documentation (inflammatory, T4's…)

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/Tattoing 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



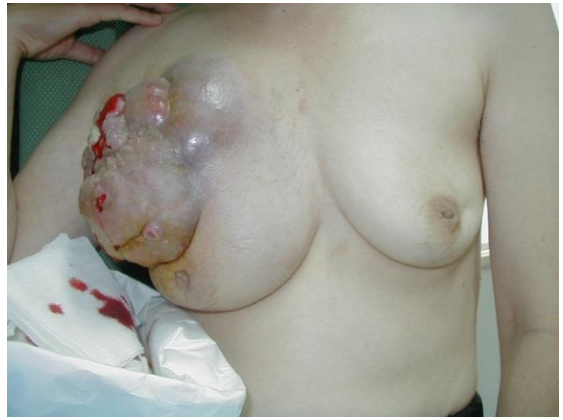
Ten years passed but the rational stays the same except for the addition of anti Her2 therapies or new drugs in a clinical trial setting.
There is however no answer for the minority of those that in the end still have no response.

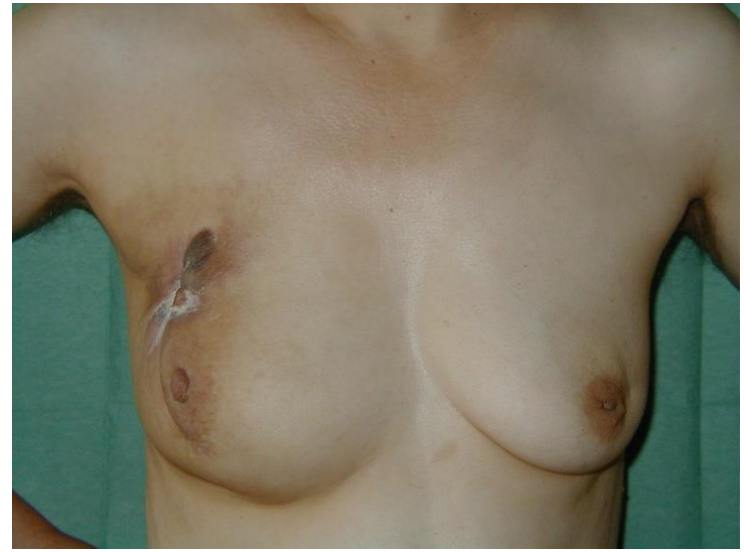
Update on LABC, Giordano 2003
The Oncologist 2003; 8:521-530

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.



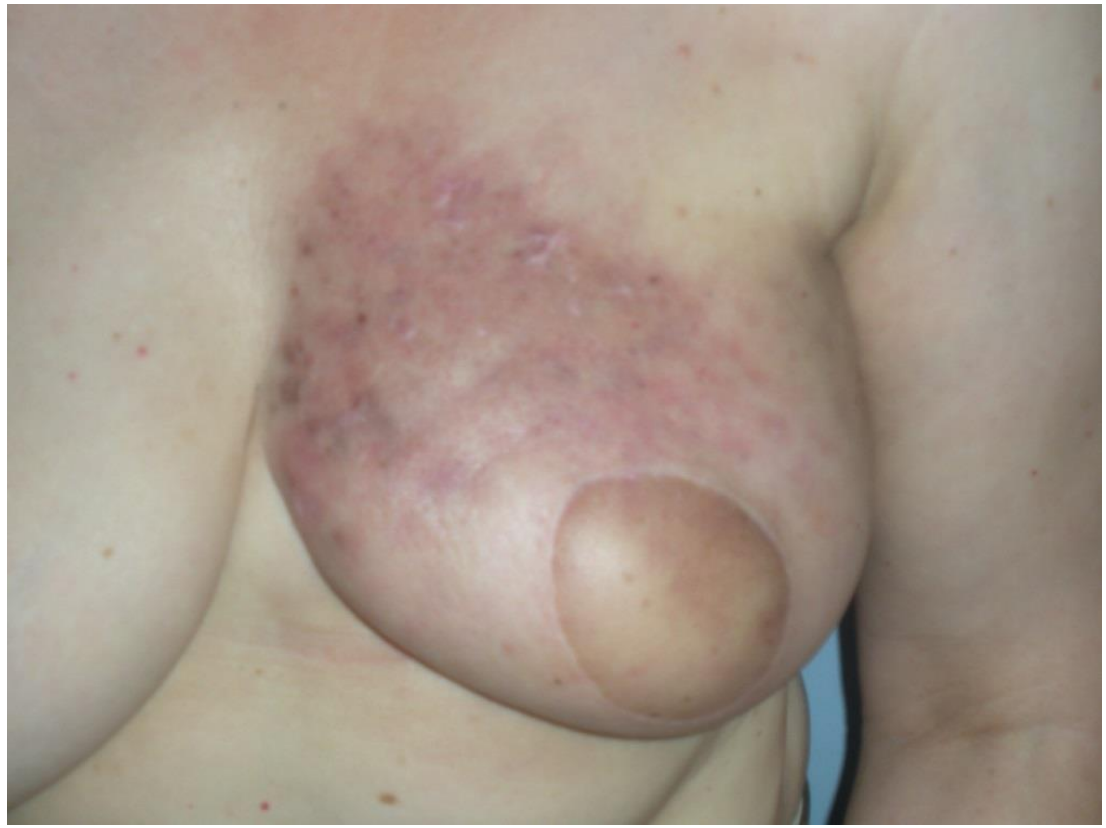


Criteria for mastectomy

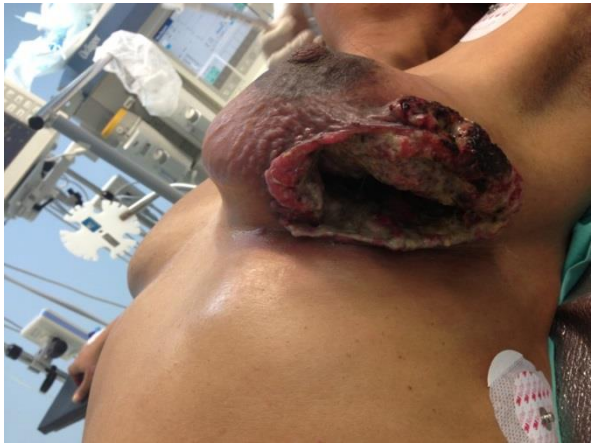
- IBC
- Persistence of skin edema
- Residual tumor size > 5 cm (Oncoplastic techniques)
- Presence of extensive suspicious microcalcifications ->mammography, MRI
- Evidence of multicentricity-> MRI
- Tumor biology ???(radioresistent tumors)

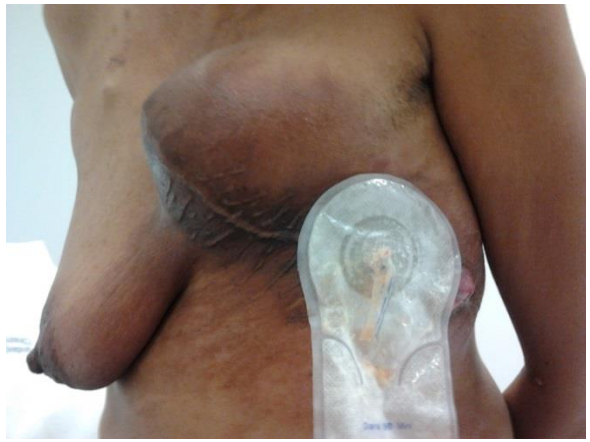
If mastectomy – Immediate or Delayed Breast Reconstruction

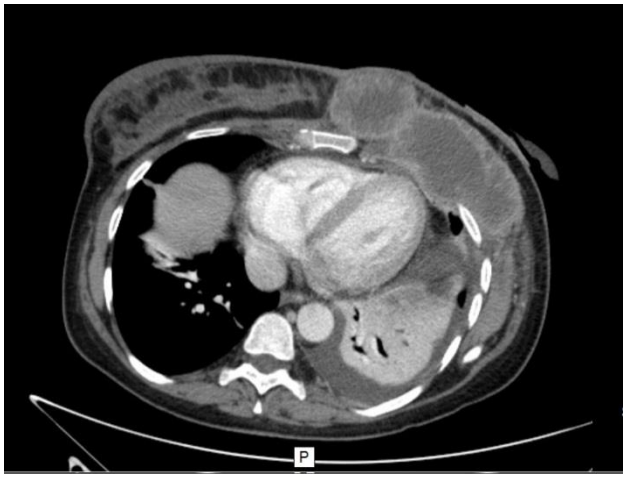
- Not IBR if IBC
- If local control is not attained and the intention is tumor debulking unless reconstruction to cover large skin defects in extreme cases
- Radiotherapy will almost always be used
- Avoid implant based reconstruction
- Reconstruction before or after radiotherapy (no difference in Cosmetic Outcome LoE: III)

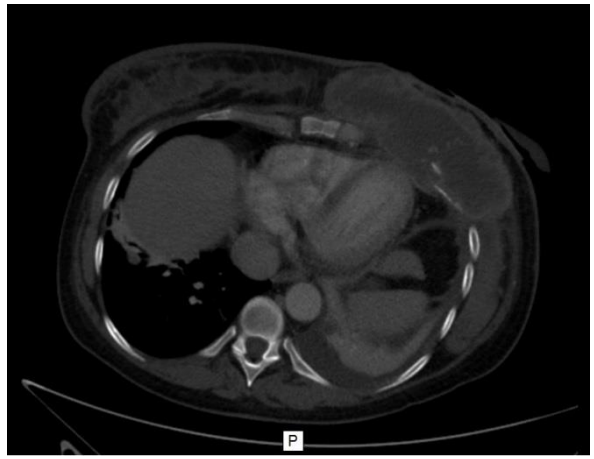


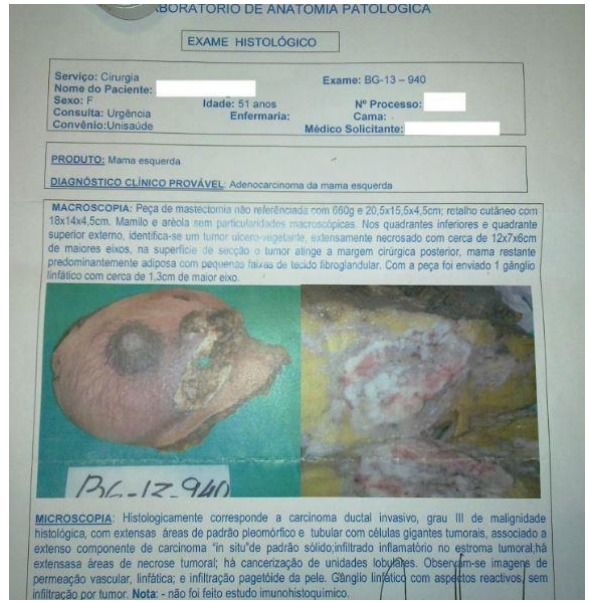
Local recurrence in LD autologus flap – IBR in IBC











BORATÓRIO DE ANATOMIA PATOLÓGICA

EXAME HISTOLÓGICO

Serviço: Cirurgia
Nome do Paciente:
Sexo: F
Idade: 51 anos
Consulta: Urgência
Enfermaria:
Convênio: Unisaúde
Exame: BG-13 – 940
Nº Processo:
Cama:
Médico Solicitante:

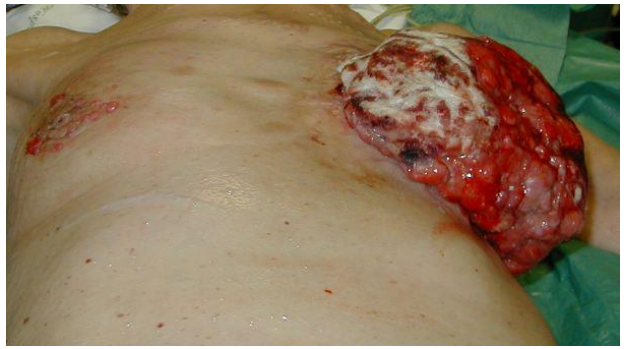
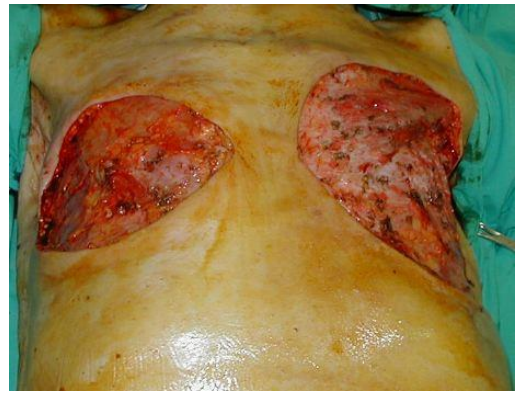
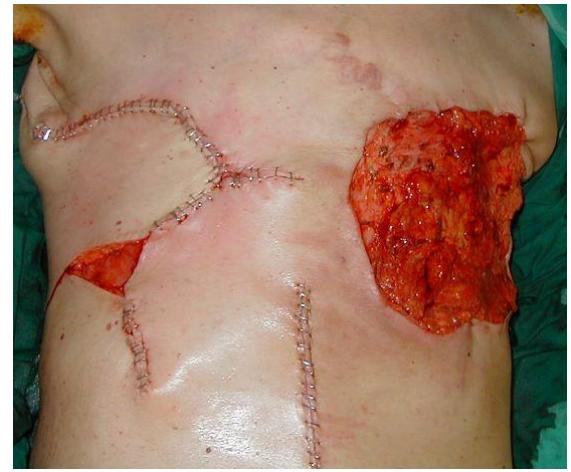
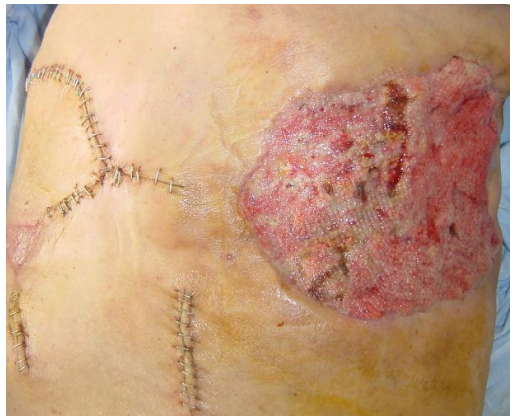
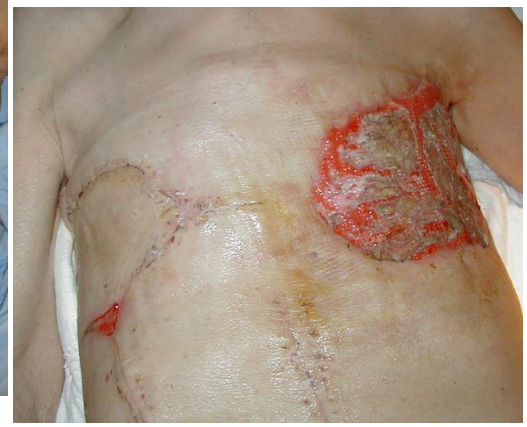
PRODUTO: Mama esquerda

DIAGNÓSTICO CLÍNICO PROVÁVEL: Adenocarcinoma da mama esquerda

MACROSCOPIA: Peça de mastectomia não referenciada com 660g e 20,5x15,5x4,5cm; retalho cutâneo com 18x14x4,5cm. Mamilo e aréola sem particularidades macroscópicas. Nos quadrantes inferiores e quadrante superior externo, identifica-se um tumor ulcero-vegetante, extensamente necrosado com cerca de 12x7x6cm de maiores eixos, na superfície de secção o tumor atinge a margem cirúrgica posterior, mama restante predominantemente adiposa com pequenas faixas de tecido fibroglandular. Com a peça foi enviado 1 gânglio linfático com cerca de 1,3cm de maior eixo.

BG-12-940

MICROSCOPIA: Histologicamente corresponde a carcinoma ductal invasivo, grau III de malignidade histológica, com extensas áreas de padrão pleomórfico e tubular com células gigantes tumorais, associado a extenso componente de carcinoma "in situ"de padrão sólido,infiltrado inflamatório no estroma tumoral,há extensasa áreas de necrose tumoral; há cancerização de unidades lobulares. Observam-se imagens de permeação vascular, linfática; e infiltração pagetóide da pele. Gânglio linfático com aspectos reactivos, sem infiltração por tumor. Nota: - não foi feito estudo imunohistoquímico.

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

Abandoned advanced breast cancer in an old patient: A difficult challenge
Cardoso MJ, Valente F, Lima LM, Ferreira S, Costa E, de Oliveira MC, Ferreira P, Cardoso A, Amarante JM
BREAST JOURNAL 2005. VL 11; IS 2:151-152

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