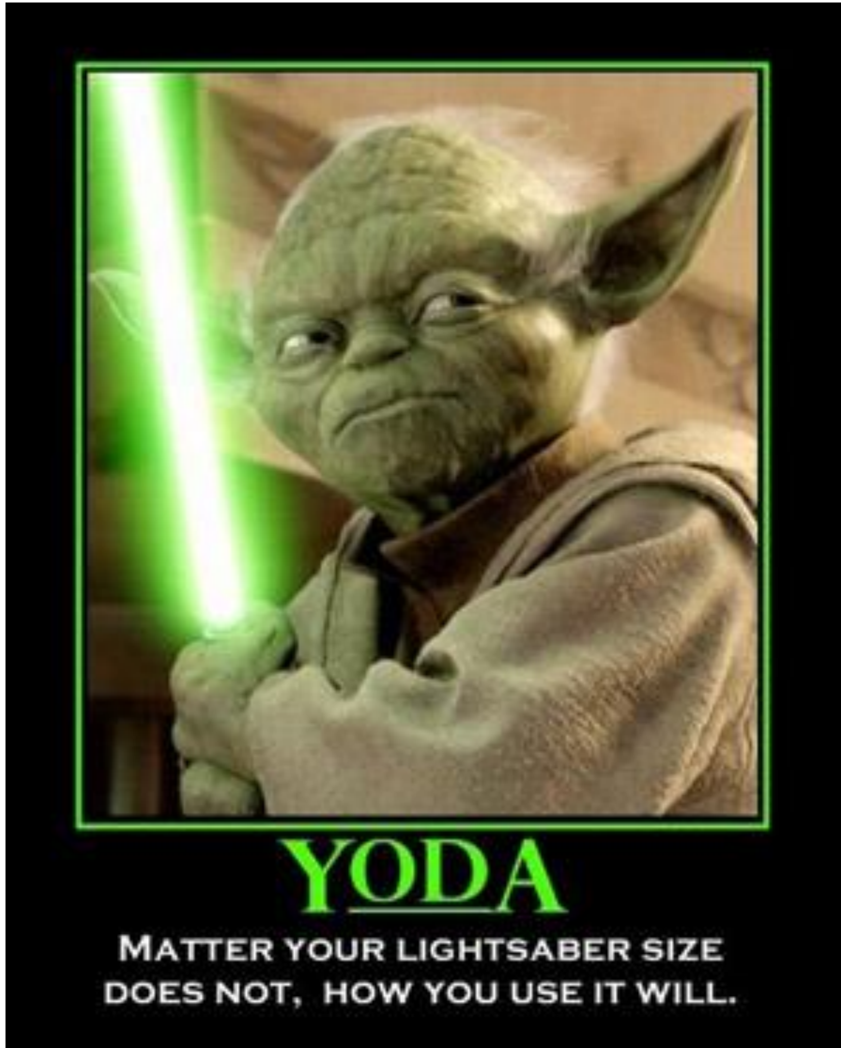
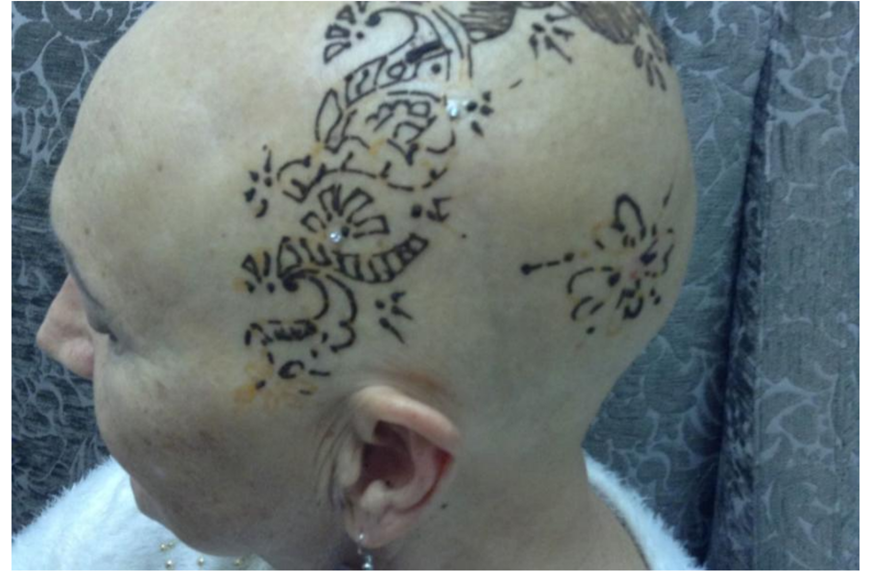
Reconstruction in locally advanced breast cancers



What is the justification of the return of surgery for advanced breast cancer.

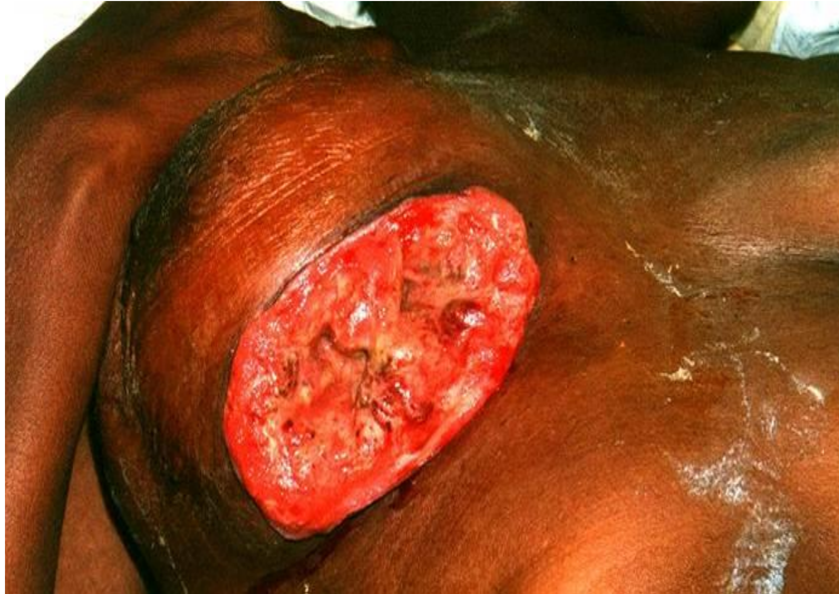
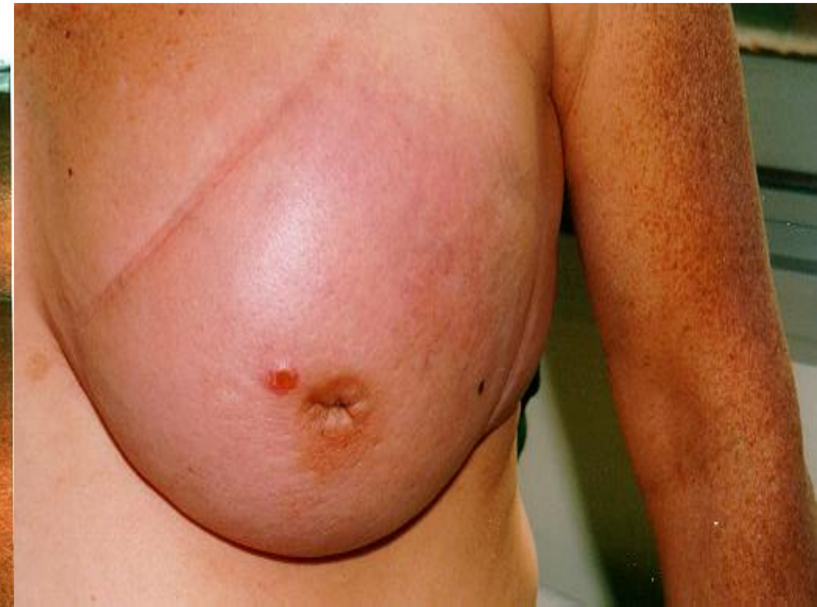
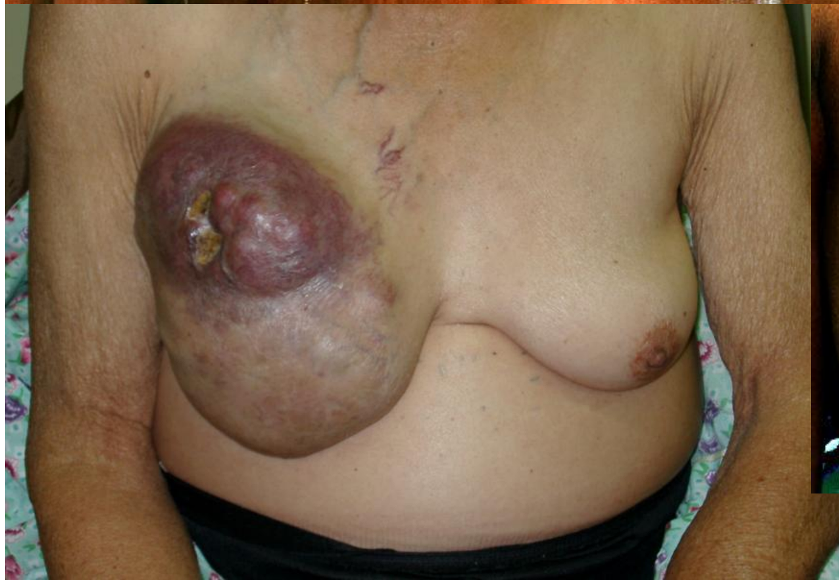
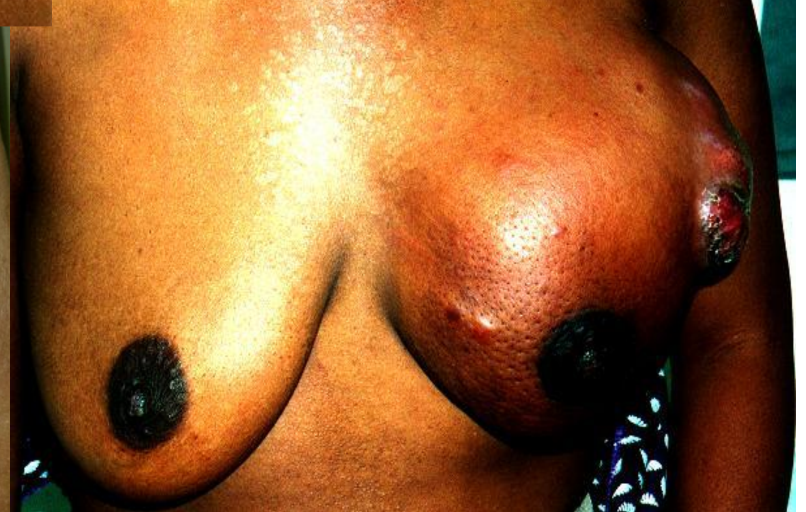
Carol Benn

True or False?

- 
- There is no survival benefit in offering surgery for women who are likely to demise from their breast cancer due to either advanced presentation or aggressive tumour biology

- Locally advanced breast cancers contribute to about 10-20% of newly diagnosed worldwide
- Unfortunately in South Africa as in many developing countries 60% of tumours are classified as locally advanced
- Locally advanced cancers have widely different clinical and biological characteristics

Locally advanced breast cancers

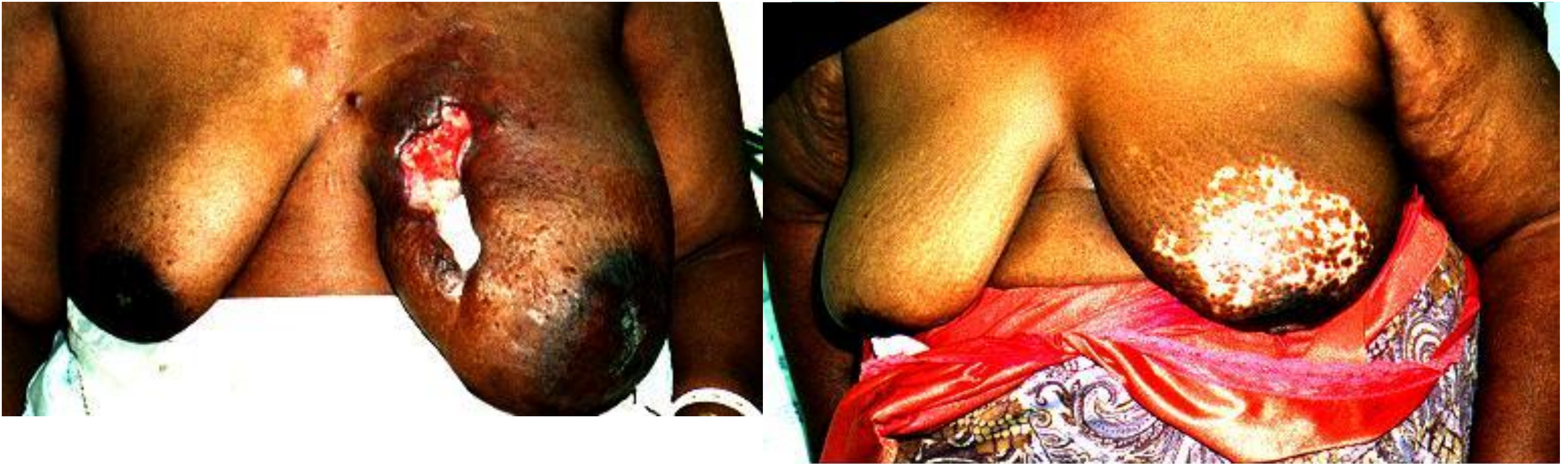
Information required prior to starting the trip

- History and examination
- Radiology
- Pathology
- Metastatic workup
- Photographic initial sizing
- Multi-disciplinary decision making

The road now less travelled : The argument for NO upfront surgery

- For all types of LABC, the majority of patients developed distant metastases
- High rates of loco-regional failure irrespective of whether surgery and or radiation was offered (surgery alone=60% local recurrence)
- Loco-regional recurrences varied from 25-72%
- Preoperative or postoperative radiatio therapy improved loco-regional contro rates but did not alter survival rates
- Local control without systemic therapy results in a less than 20% 10 year survival

Primary chemotherapy



- gold standard for all patients with locally advanced breast cancer
- does facilitate cosmesis
- Form of biological warfare

Personalised Oncology

- The many oncology drugs emphasis, that not unlike antibiotics developed for bacterial resistance the list is ever increasing

- Target therapies add to the menu

R.M.S. "TITANIC"

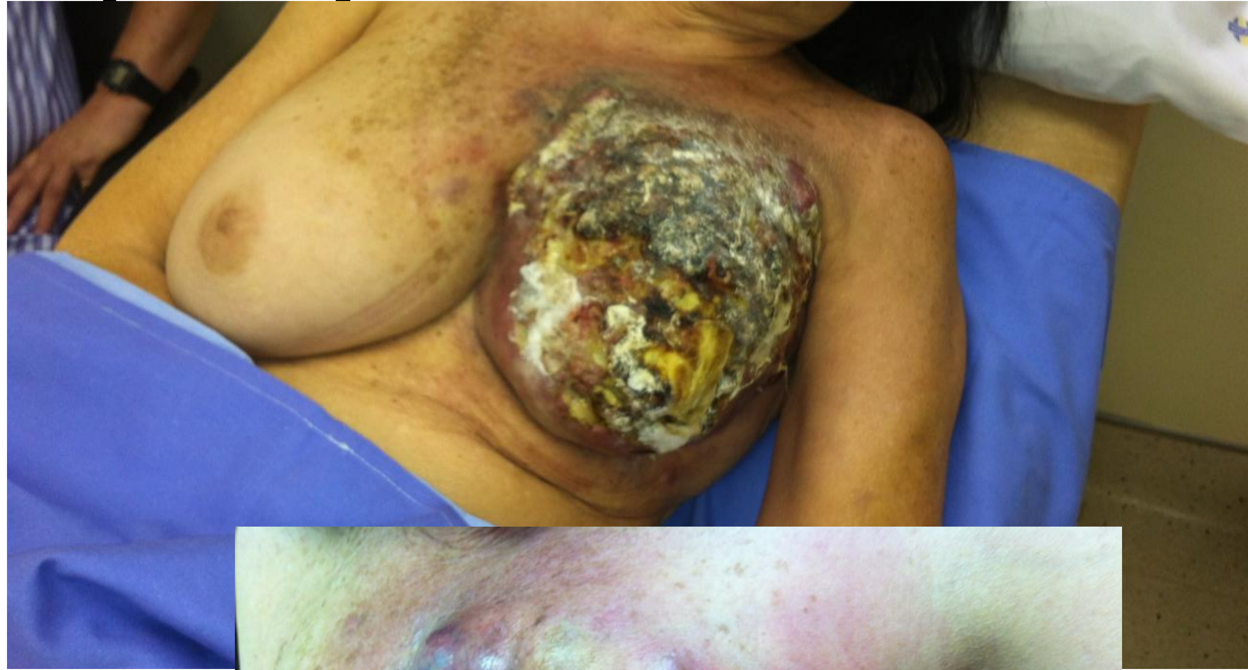
The First-Class Menu

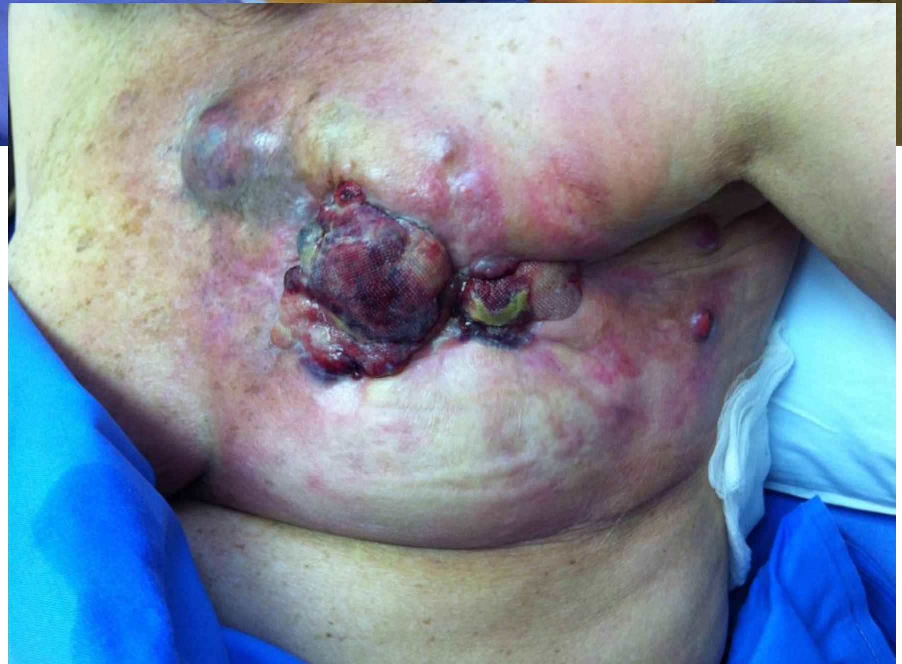
PRIVATE

- Prior to accepting primary chemotherapy defeat, and offering a salvage operation, careful discussion as to the heroic and sometimes foolish outcomes must be born in mind

The effect of Advanced breast cancer on quality of life

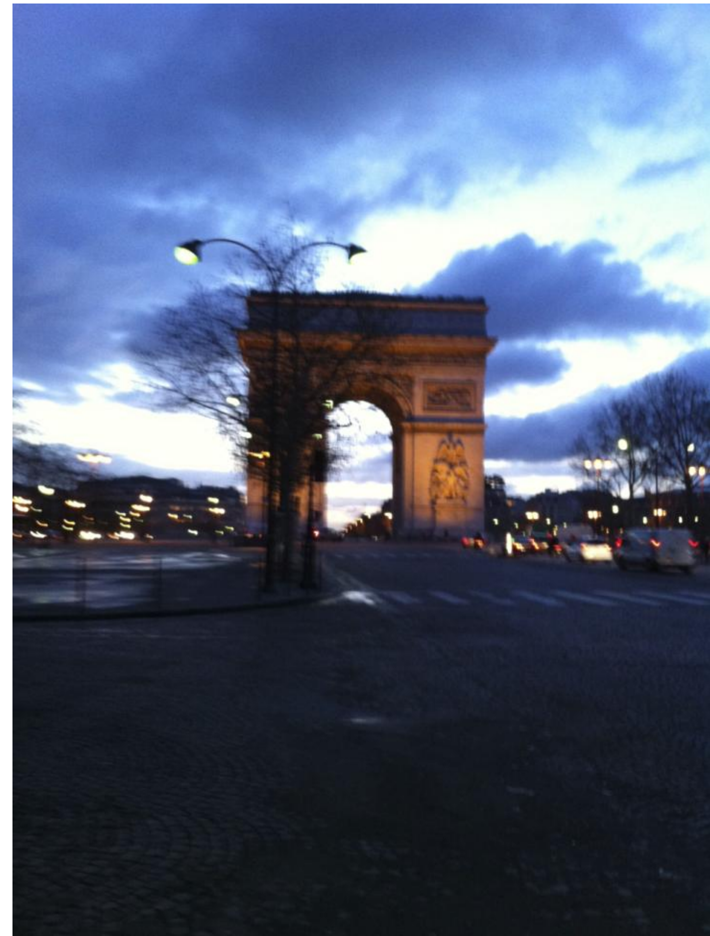
- The physical issues of pain, odour and loss of function must be carefully considered when deciding on treating or withholding treatment in these women





- Psychological support, both through therapy and medication (anti-depressants, and anxiolytics) play an important role
- For many patients failure to respond to primary chemotherapy or the development of metastatic disease is more devastating than the original cancer diagnosis

- In view of the vast improvements made in oncological care and the effect of advanced breast cancer on patient morale , surgery is a double edged sword



Guidelines

- Leaving macroscopic tumour behind, is not a surgical victory
- Operating in the presence of active, aggressive visceral disease is pointless

OVERCONFIDENCE

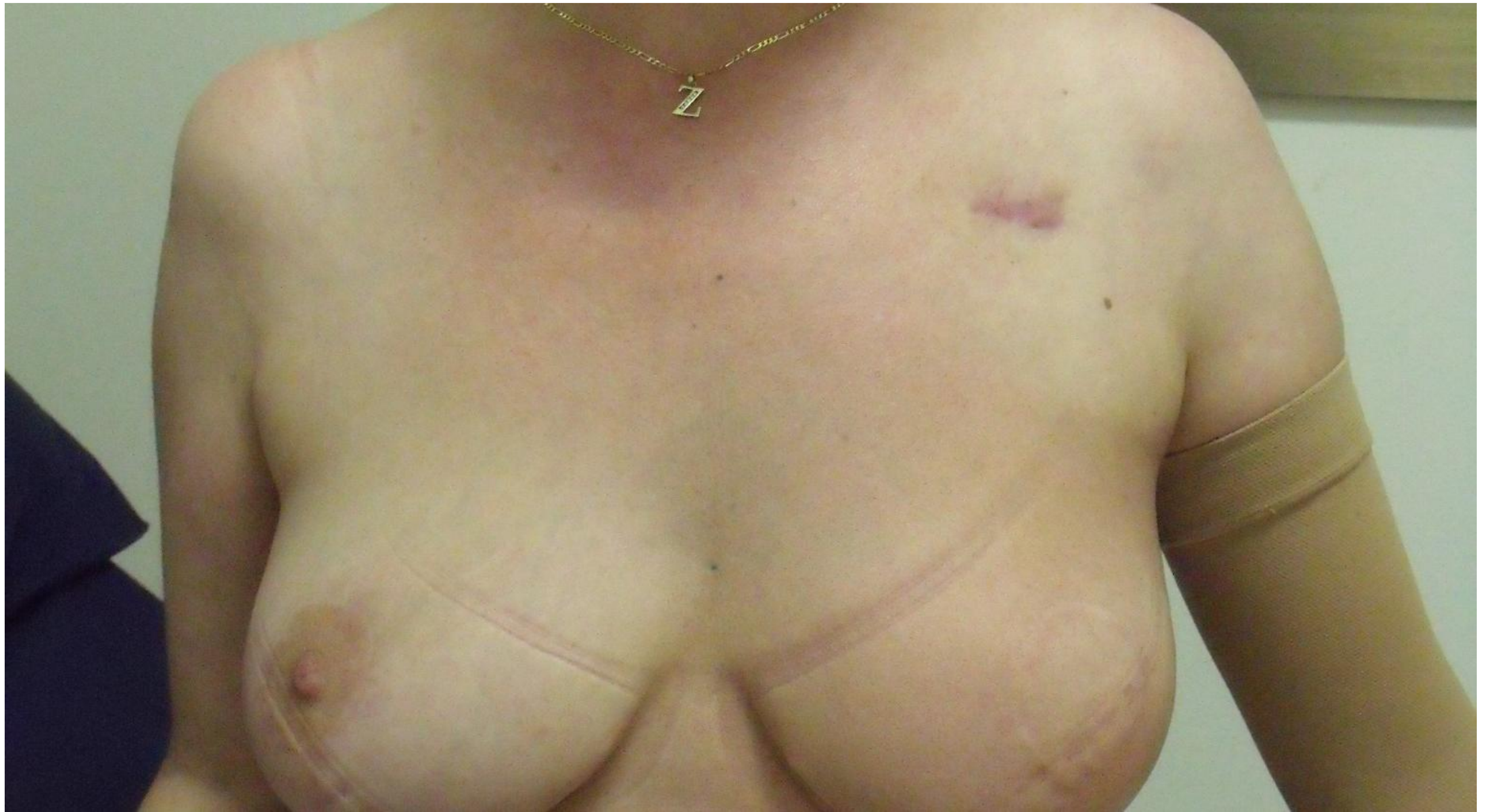
This is going to end in disaster, and you have no one to blame but yourself.

Imagine your patient with advanced breast cancer is the titanic, and the cancer is the iceberg

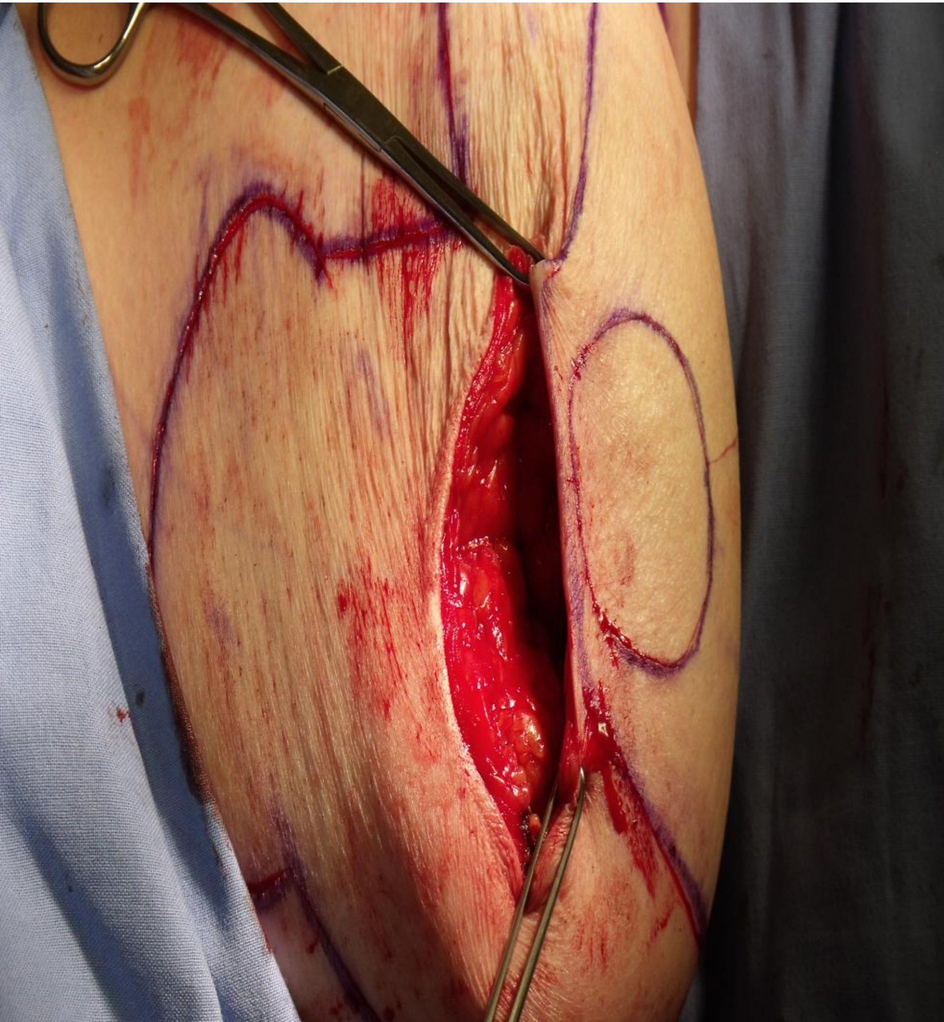
Surgery upfront prior to chemotherapy is like chopping off the top of the iceberg, daft as the ship is still going down (quickly)

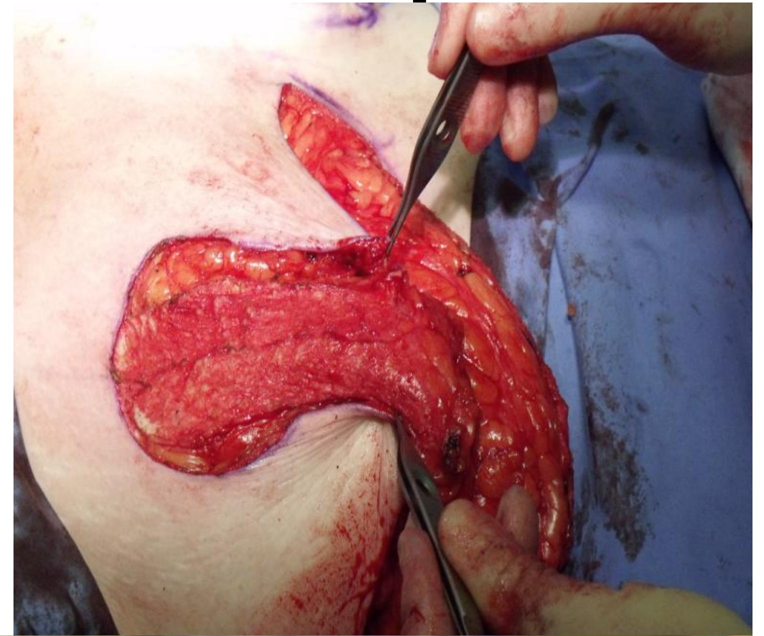
- Chemotherapy upfront, followed by surgery (timed when appropriate, see below), although the ship is still going to sink, this may be a more dignified exit approach and akin to the band playing while a few brave souls continue dancing….and who knows some may reach a life boat

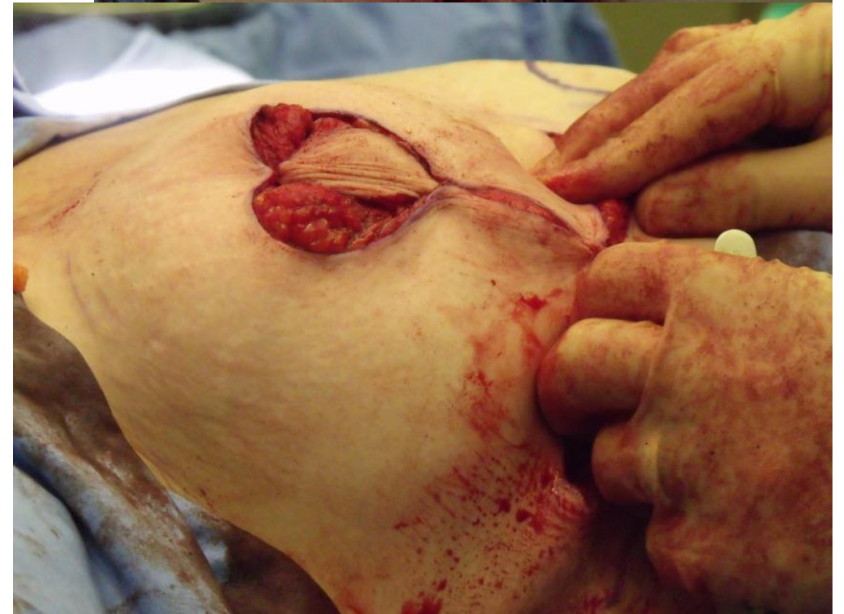
- Locally advanced central tumours, which have had a good response to primary chemotherapy, are not contraindications for central breast excisions and reconstruction



Volume displacement techniques



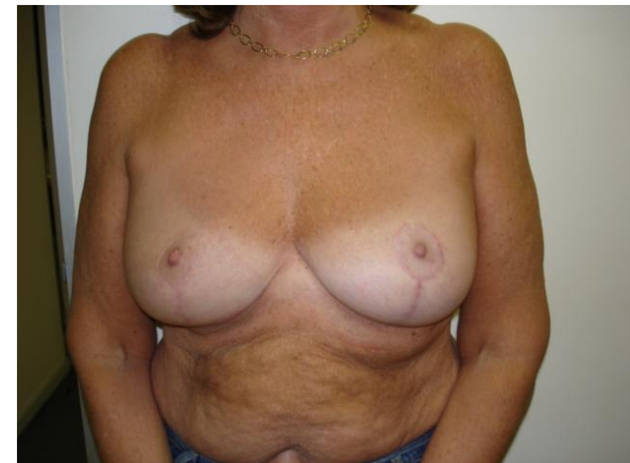


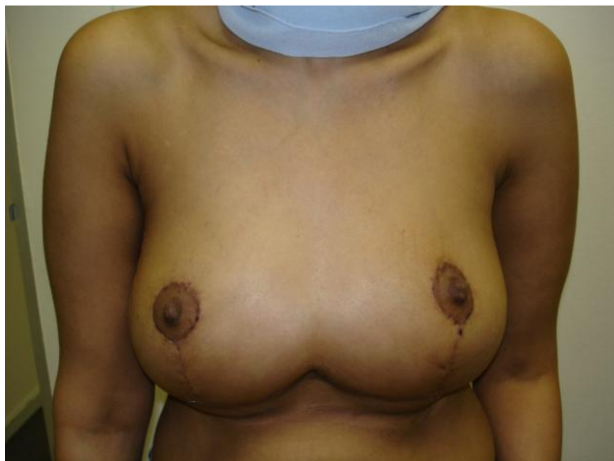


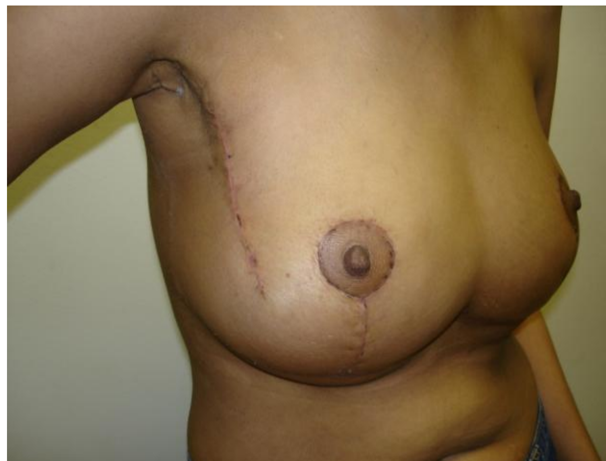
Surgical Dilemmas when operating on locally advanced breast Cancer

Margins and Recurrence (does it matter in advanced disease)

BREAST RECONSTRUCTION POST PRIMARY CHEMOTHERAPY: A 10 YEAR EXPERIENCE FROM A MULTIDISCIPLINARY BREAST UNIT
Grubnik, A; Benn C*





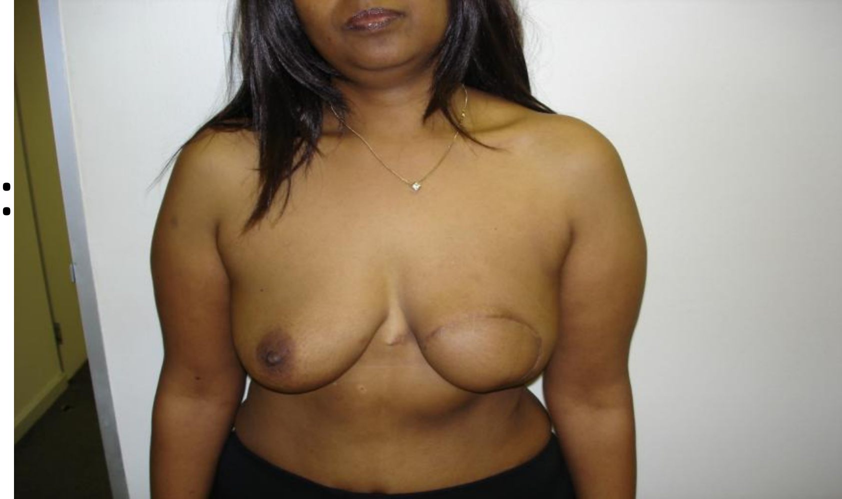


Palliative Surgery

- If surgery is deemed of value, the less is more in terms of reconstruction rule applies.
- Utilizing any loco –regional flap reconstruction with minimal complication is always the golden rule.
- Positioning the incisions of the mastectomy so as to utilize basic undermining often negates the need for complex reconstructive procedures.
- Thoraco-abdominal advancement procedures are the next step to ensure adequate healthy tissue closure.
- Latissimus dorsi, flap reconstruction should only be used if no non radiated local tissue is available

Reconstruction for aesthetic purposes in patients with either locally advanced breast cancers or in women with metastatic breast cancers

- **Do no further harm**
- Less is more is probably better:

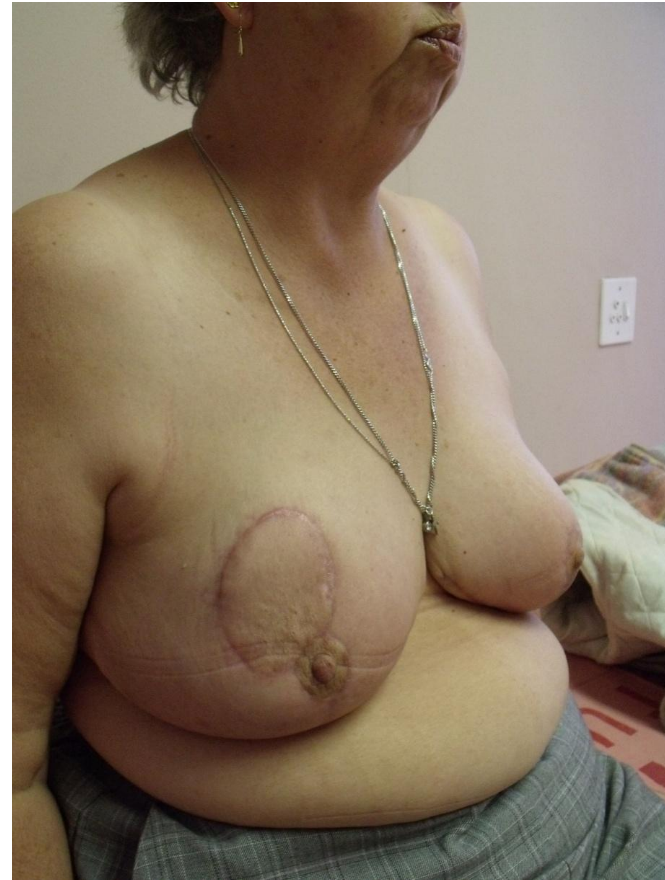


- If the reconstruction or oncoplastic procedure does not impact on oncological care, nor impacts on whether or when a patient lives or dies from breast cancer, then should a women want a breast reconstruction, dying with the dignity of a “breast” should not be refused to her.

Reconstruction in patients with metastatic disease

1. Bone only
2. Visceral disease

- Good response
- Stable
- No response
- Progressive



Bone metastatic disease

- Patients with bony metastases often have good long term remission prior to developing progressive metastatic disease and most can safely be offered reconstructive surgery.
- Safe principles that should be adhered to :
- Careful positioning of patients on the theatre table, particularly those with spinal metastases.

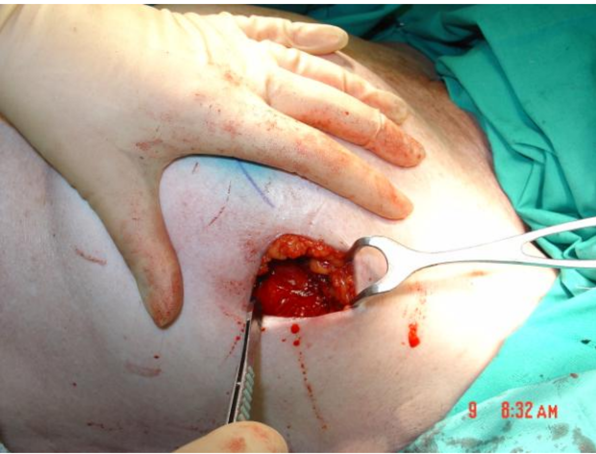
Visceral Disease

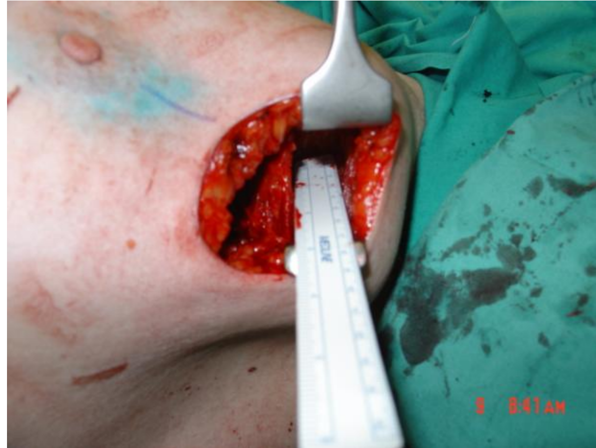
- Patients with visceral disease at time of diagnosis, who have had a good locally response to chemotherapy, and no longer have disease visible on imaging are offered reconstruction in our unit.
- Only local parenchymal and regional flaps are used,
- Anesthetic pre surgery clinical assessment (requirement for all patients treated with primary chemotherapy).
- Patients with stable visceral metastatic disease are only offered parenchymal (volume displacement) oncoplastic surgery, usually with no opposite side matching (OSM)

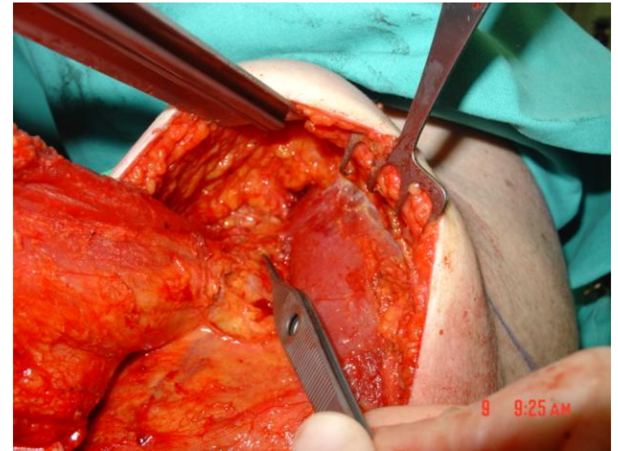
Good response to chemotherapy

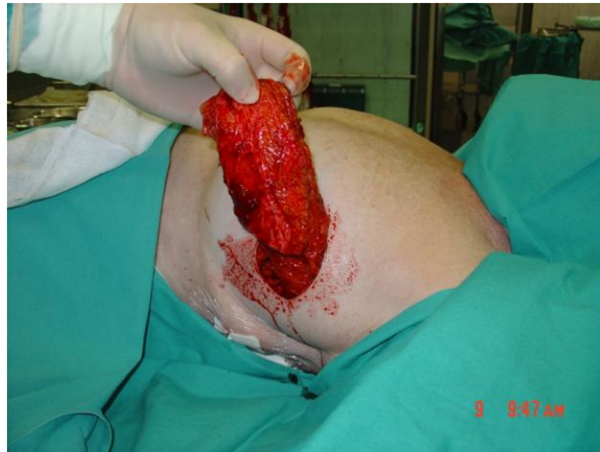
- Original tumour size and area does not need to be excised but rather only residual disease.
- Size of breast, residual tumour size and position should assessed prior to determining type of reconstruction
- Wherever possible oncoplastic displacement procedures involving breast reduction techniques in women with bigger breasts, parenchymal flap reconstructive procedures in women with medium size breasts with or without opposite side matching procedures are performed

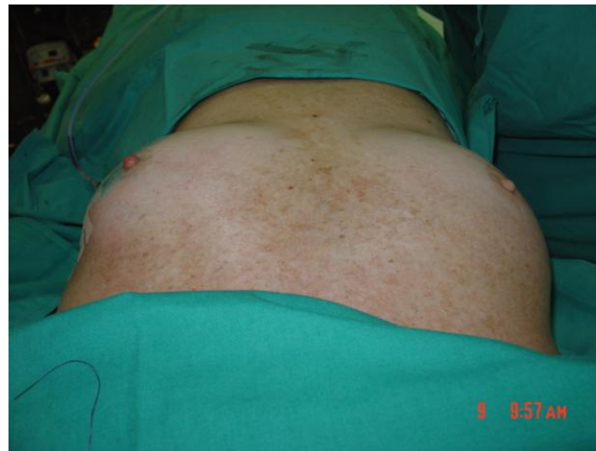
Rule 4: Latissimus flaps are Radiation Resistant



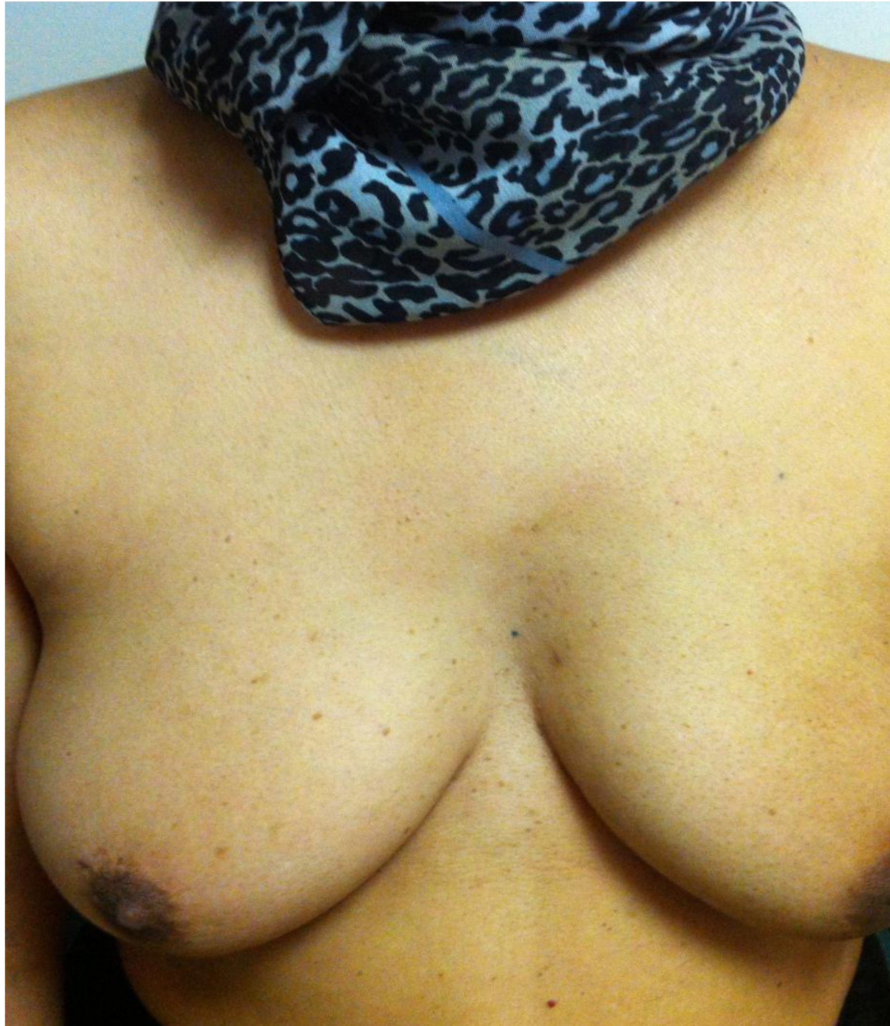


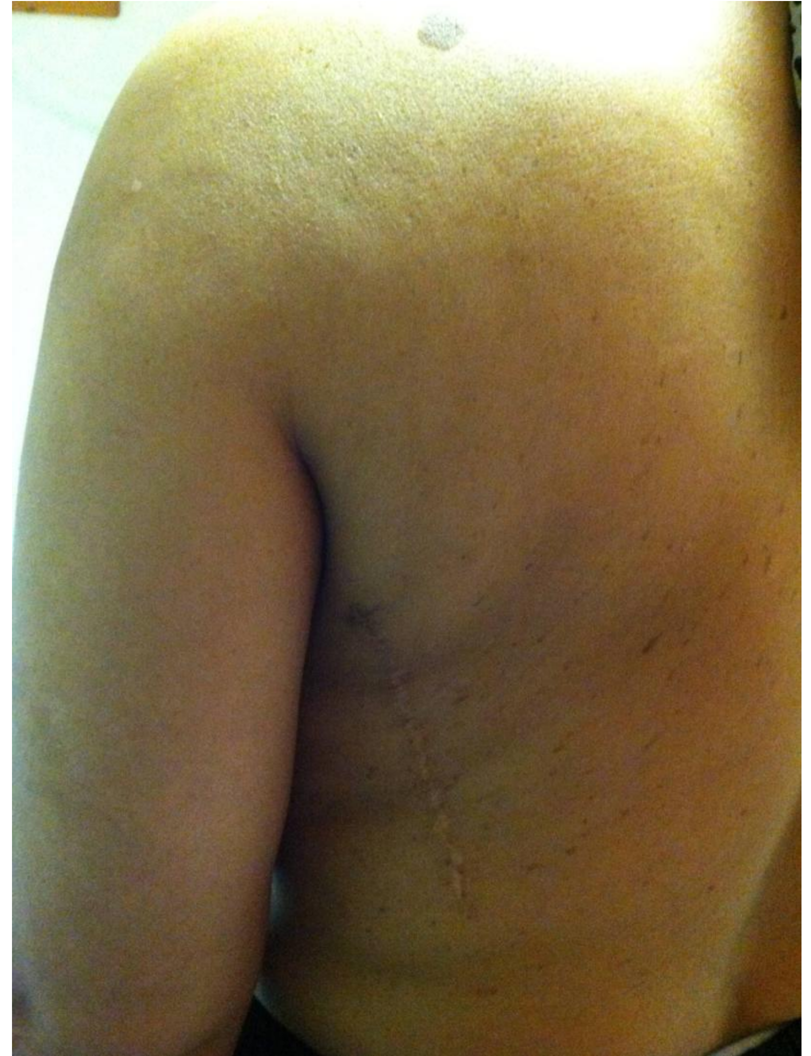






Locally advanced non metastatic breast Cancer





Moderate Response to Chemo

- Where moderate response to chemotherapy results in excision volumes to breast ratios resulting in an unacceptable deformity, our unit is comfortable with volume replacement procedures done as immediate reconstructive procedures. Techniques ranging from LICAP to latissimus flap reconstructive procedures are offered.
- In units that are not comfortable with offering latissimus flaps prior to radiation, closing with an acceptable deformity, and offering reconstruction 6 months post radiation is also feasible

Poor response to chemotherapy

- On occasion due to patient “inability” to cope with chemotherapy, and despondence around response, offering surgery may allow a time gap (no more than 6 weeks) allowing the patient time to prepare of second line chemotherapy.
- Again where possible breast saving surgery should be offered, as mastectomies in this setting do not offer any survival benefit

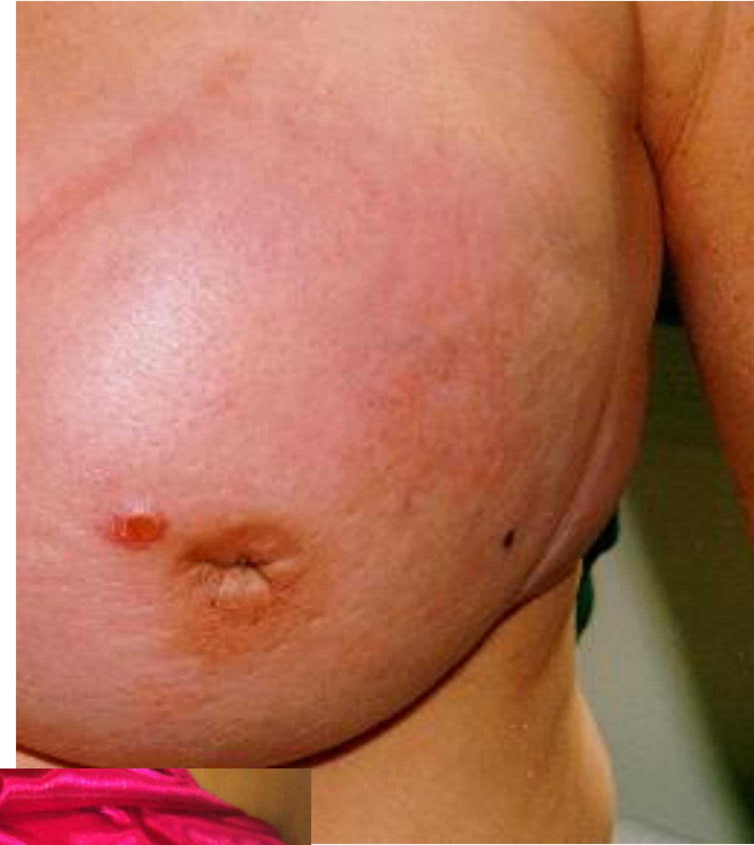
Inflammatory breast cancer

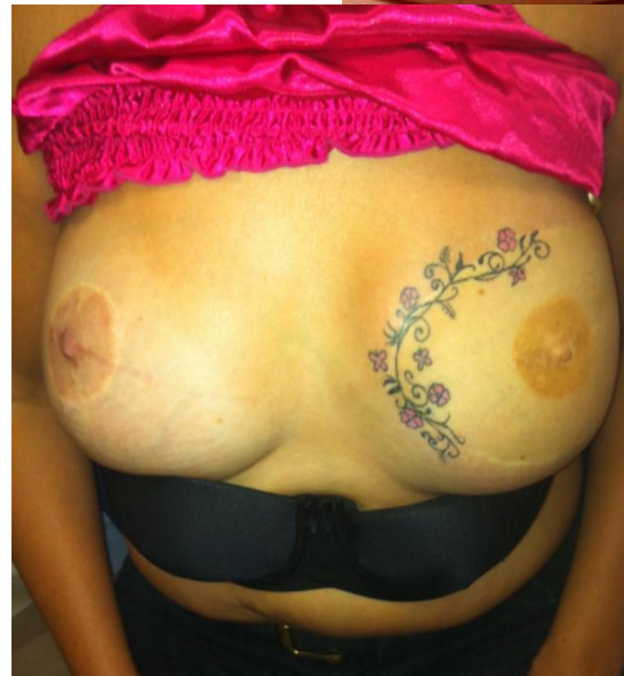
- Although the discussion at the second advanced breast cancer consensus, recommended no immediate reconstruction in patients with inflammatory breast cancer

- Divides patients into patients with a clinical complete response and those with a variable clinical response
- In women who achieve good clinical and radiological responses to chemotherapy, we offer mastectomy, and latissimus dorsi reconstructions as an immediate delayed reconstruction (48 hour pathology confirmation of margin clearance)..

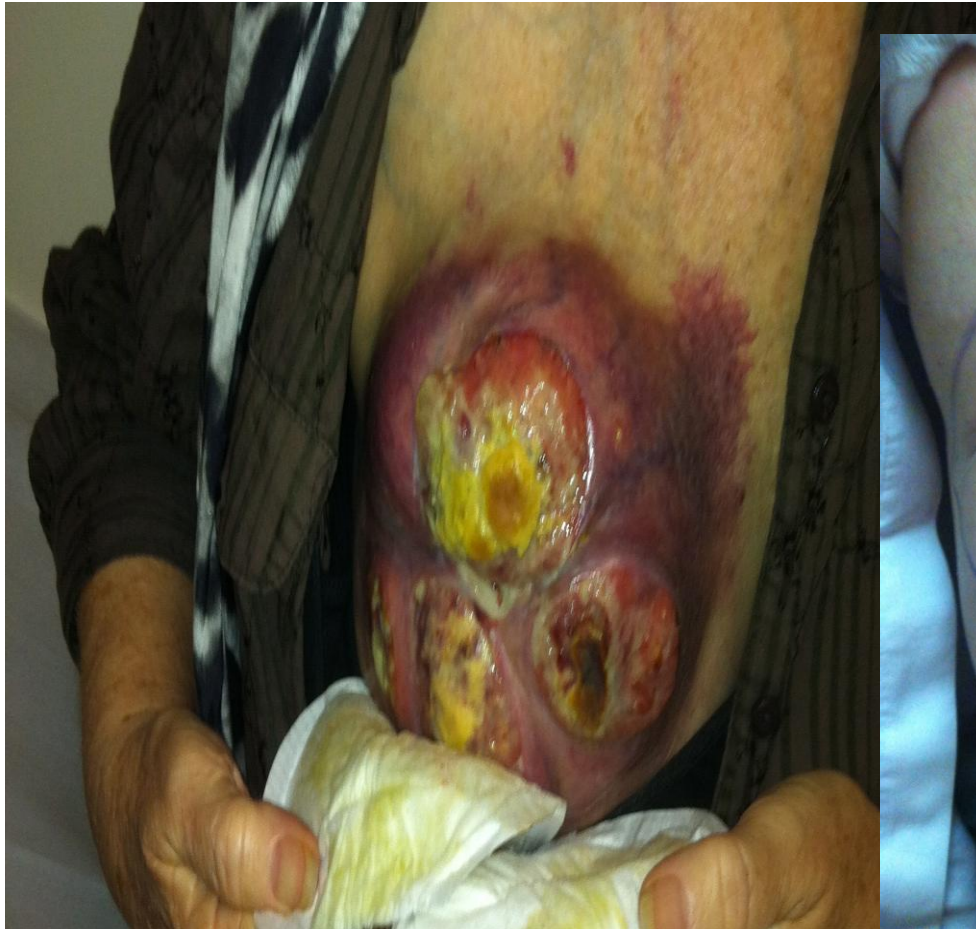
Time from reconstruction to radiation should not be longer than 6 weeks

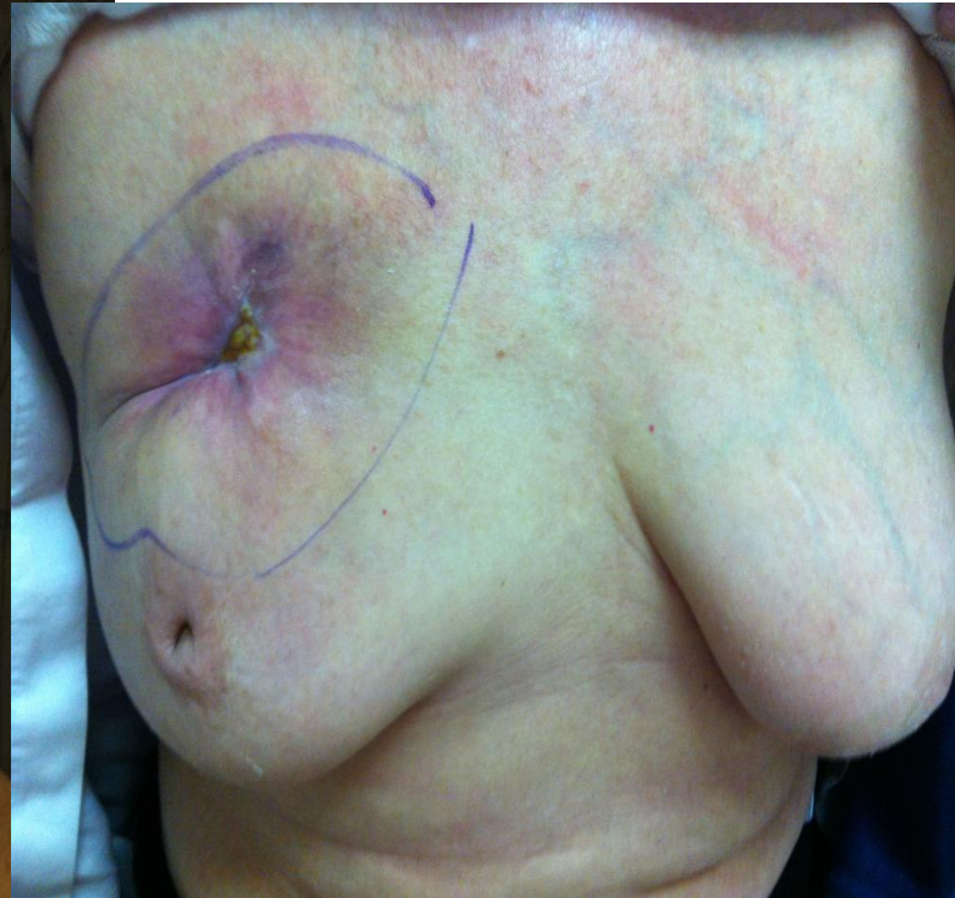
The time taken for mastectomy, axillary surgery, and latissimus flap reconstruction (including turning of patient takes 2 hours from skin incision till dressings)





There is most definitely a place for surgery in patients with advanced breast cancer, the question is when and what





Conclusion

- Surgery does play a role in the management of advanced breast cancer. Although It may not be the star of the show (leading lady) , surgery is definitely not completely in the wings