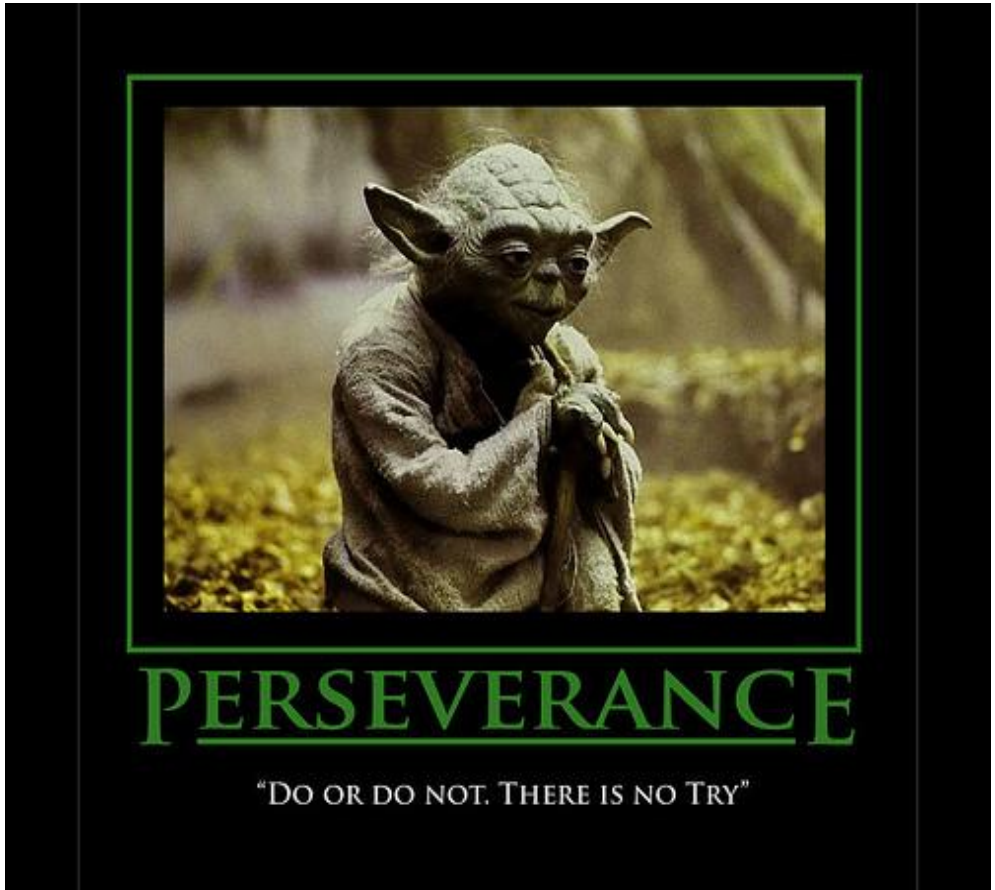
Opposing Oncologic and Cosmetic challenges for breast conserving surgery for retro-areolar primary cancer lesion.



Carol Benn

- Breast conservation with radiation therapy has now become the standard surgical management for patients with stage 1 and 2 breast cancer in the 21st century
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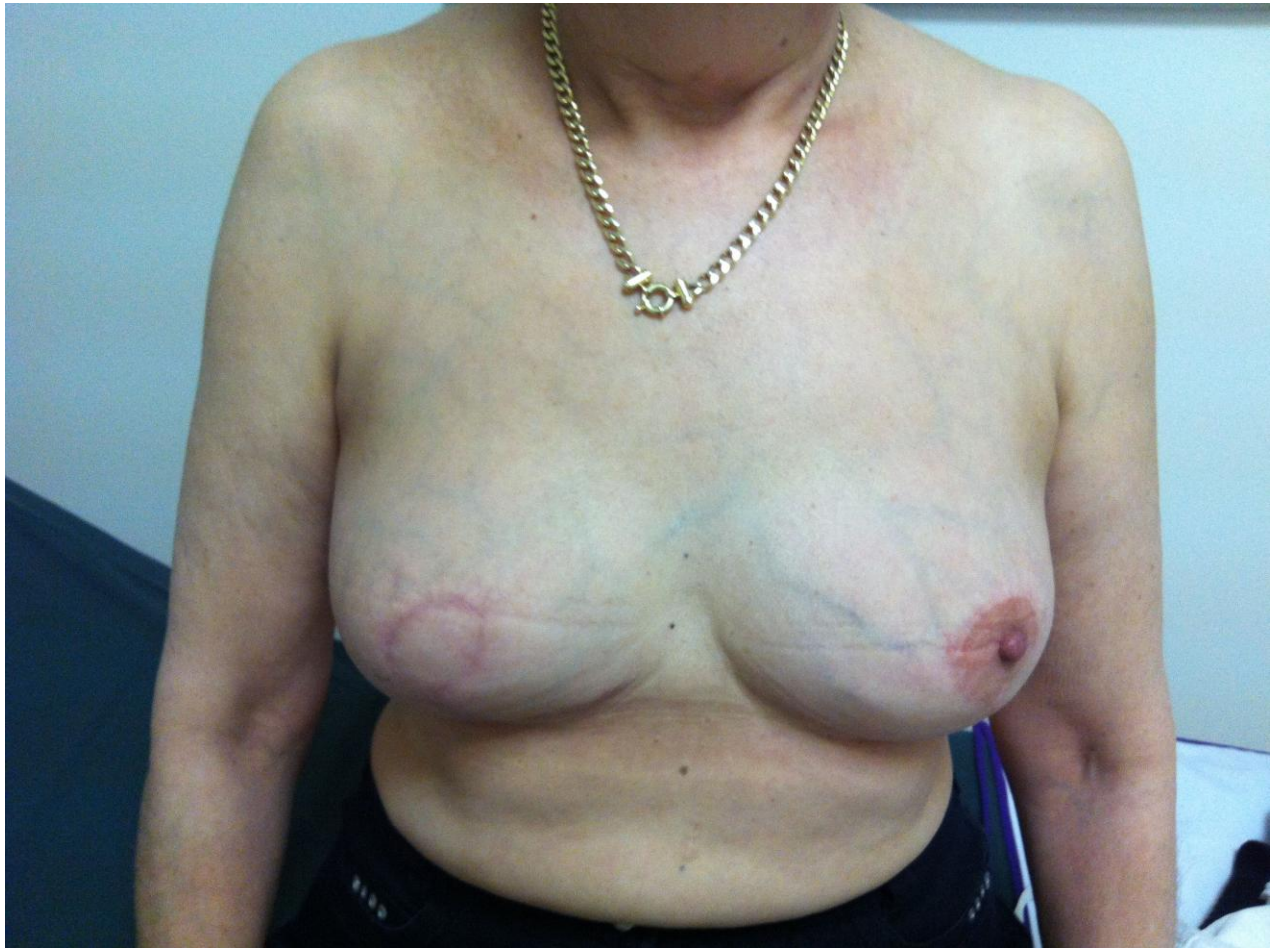
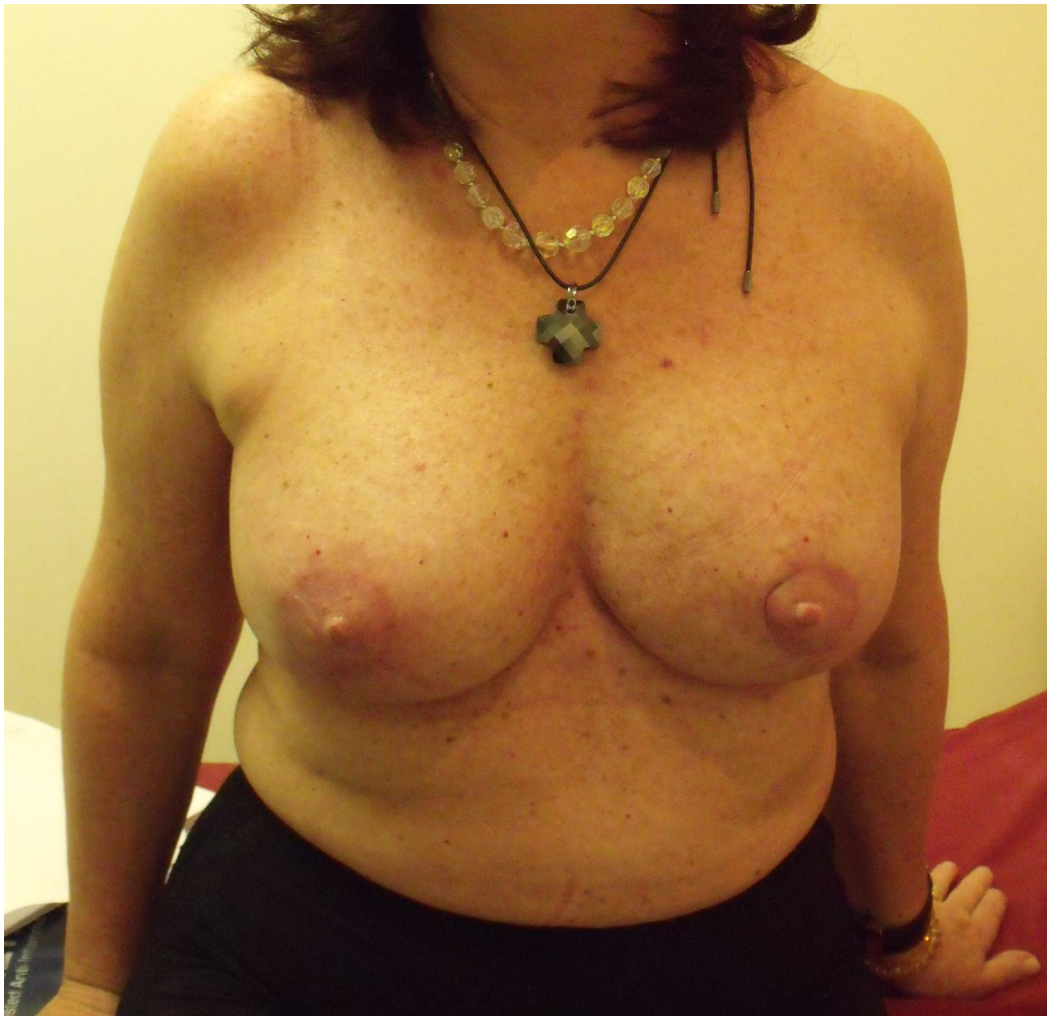


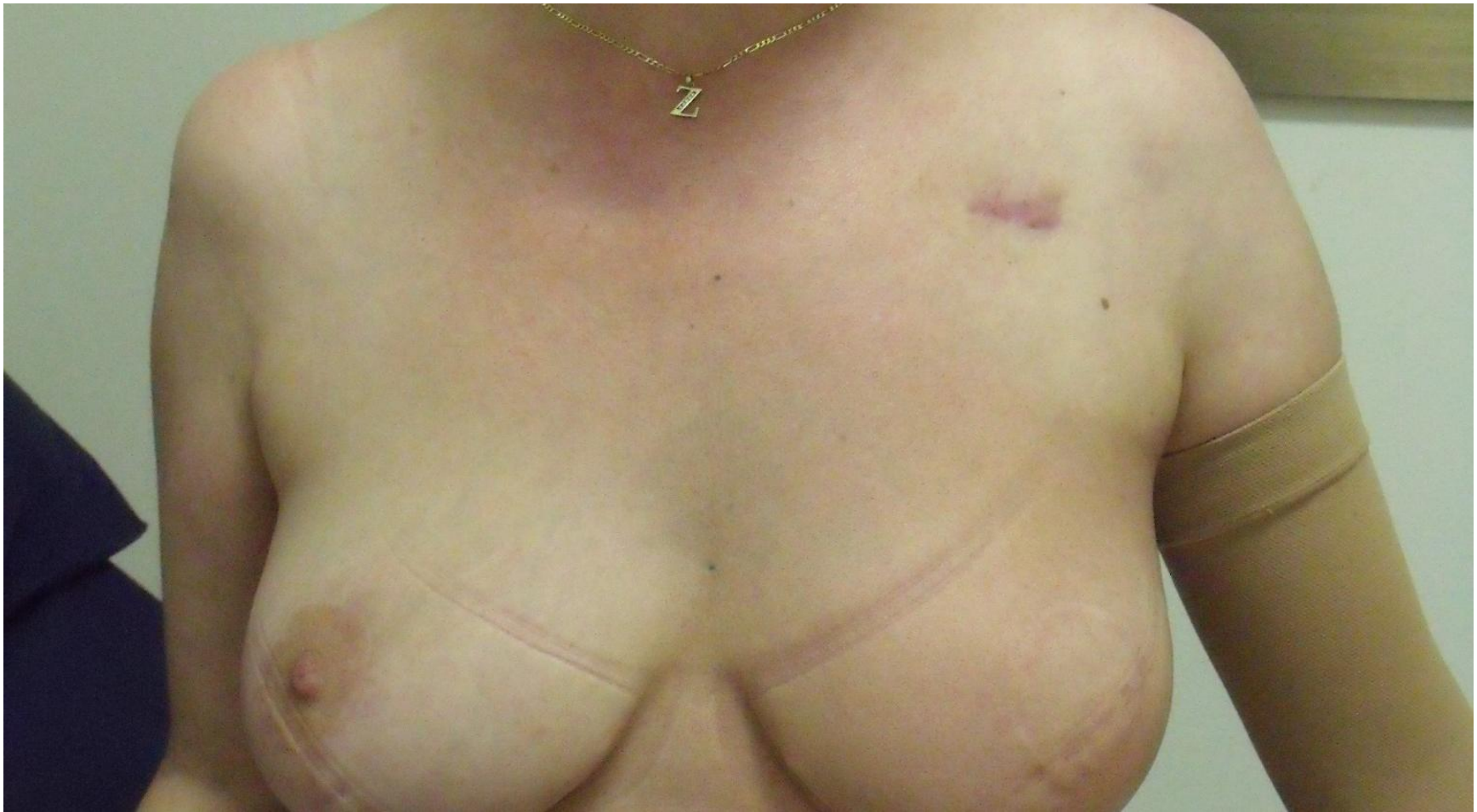
- Approximately 5-20% of breast cancers are located centrally, and these tumours are traditionally treated with a mastectomy



Oncological Safety Net

- Oncology reigns supreme
- Clear margins as per unit protocols
- Multi-disciplinary management
- Radiation therapy decisions are determined prior to starting primary chemotherapy
- Clips for surgical beds

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

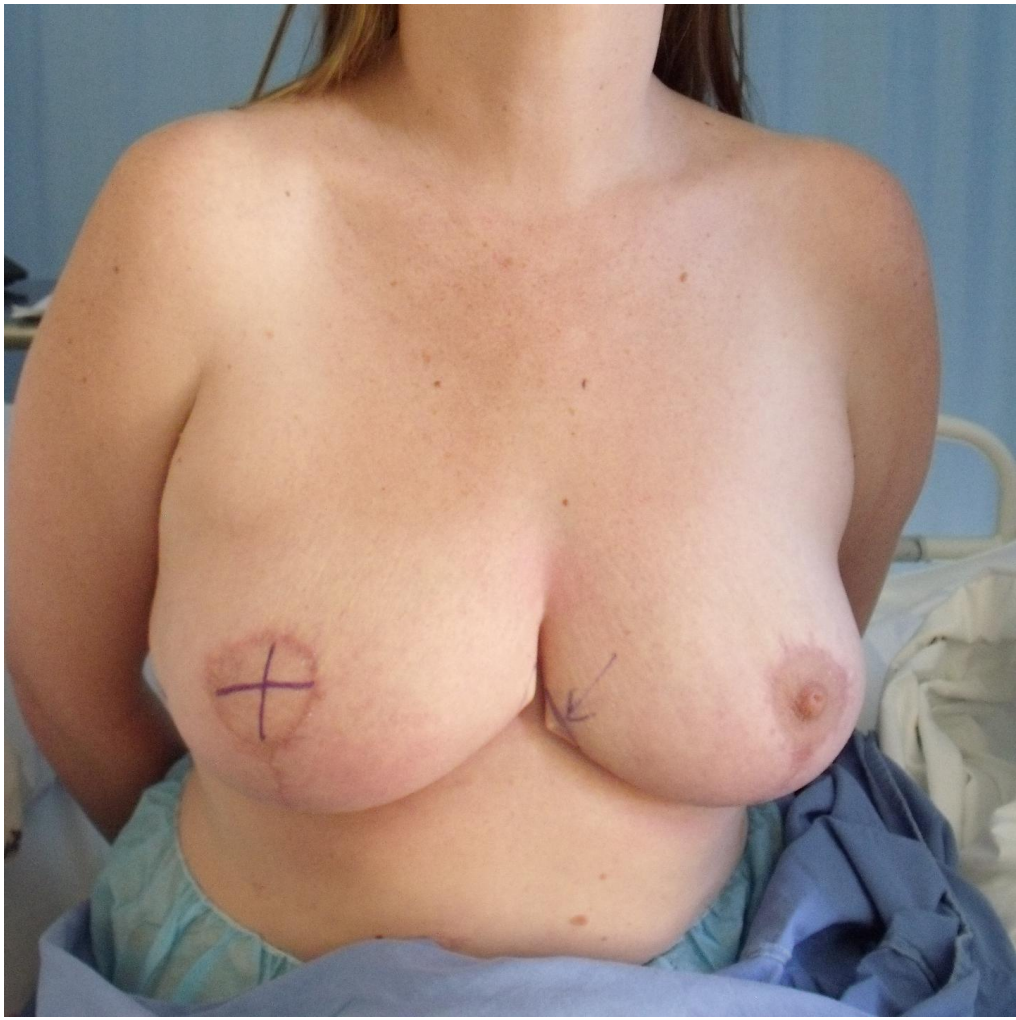


Radiology
Translational radiology

- Mammograms, ultrasound, MRI scanning and now breast tomosynthesis to gain as close to a 3D idea of position of the tumour in the breast
- Size of the lesion and extent of intraduct component prior to planning oncoplastic procedures

Surgical Safety Net

- Breast and tumour size are closely related,
- Depth of the tumour to the nipple areolar complex should also be assessed
- Discuss with patient about nipple areolar complex loss probabilities

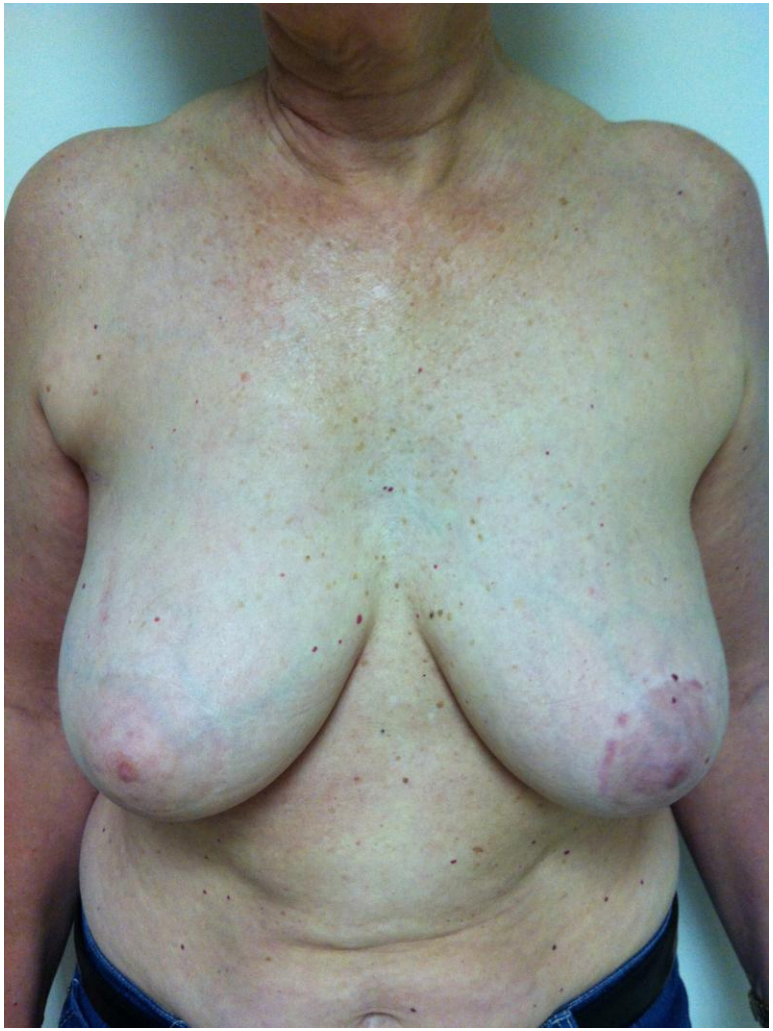


Psychology

- Issues around cancer recurrence with breast conservation, loss of nipple areolar complex, radiation complications, future radiological follow-up and patient anxiety all play a role in determining choice of procedure and reconstruction.
- All options highlighting the advantages and disadvantages of each procedure and the technical challenges should be discussed with the patient

Patient Factors

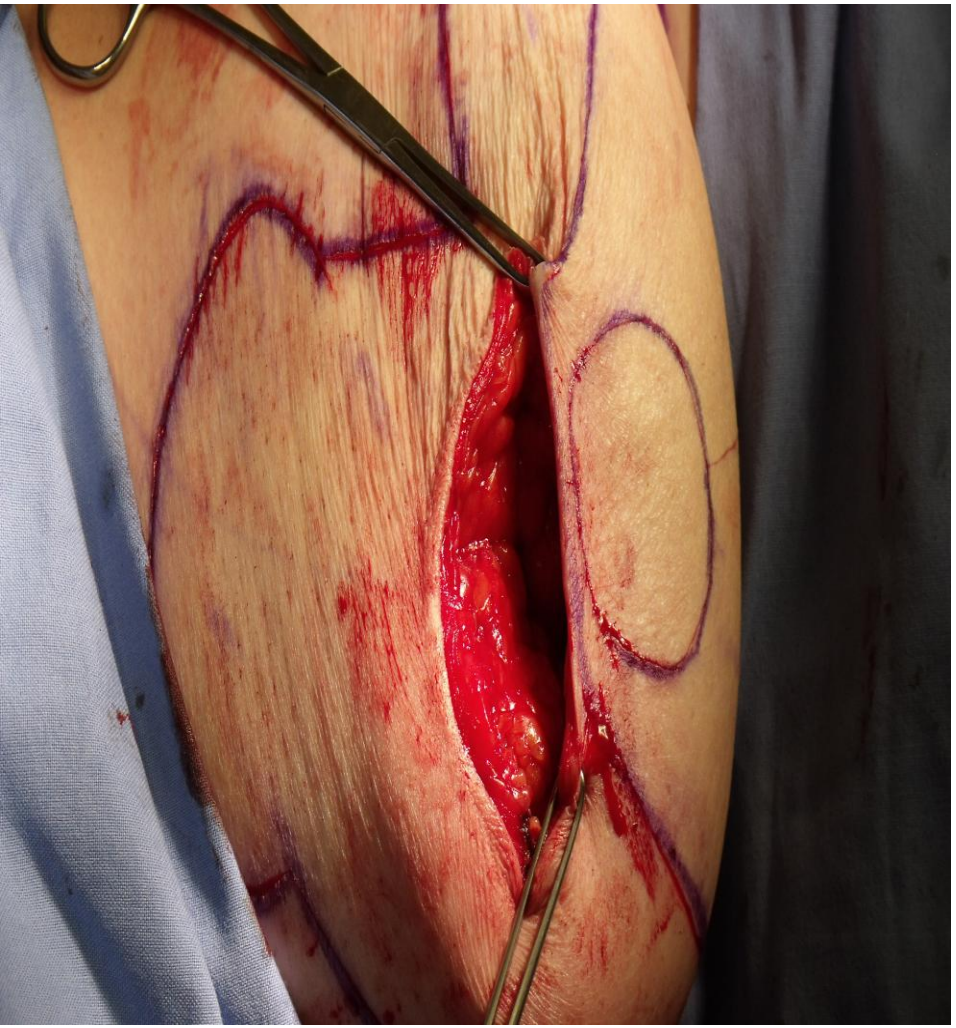
- General patient factors, medical and social (diabetes, obesity and smoking, and prosthesis
- contra-indications for radiation should be assessed prior to offering any procedure

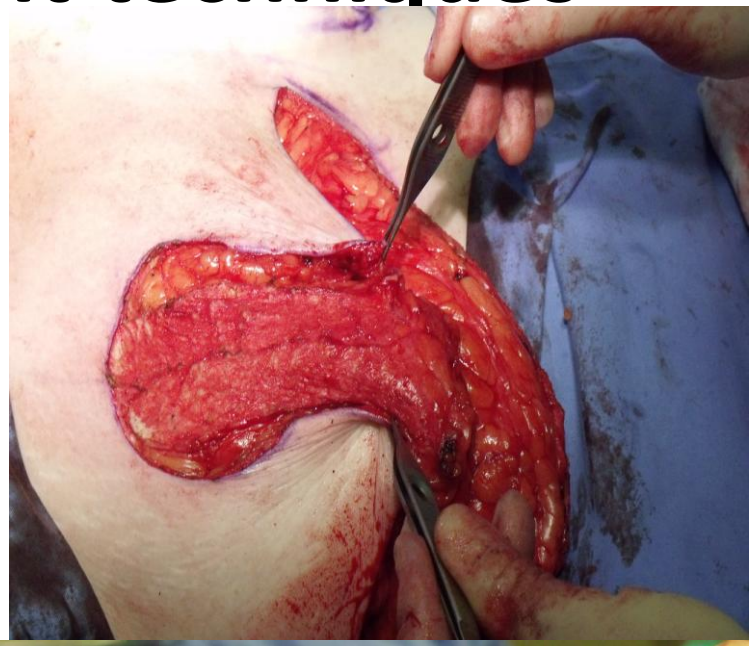


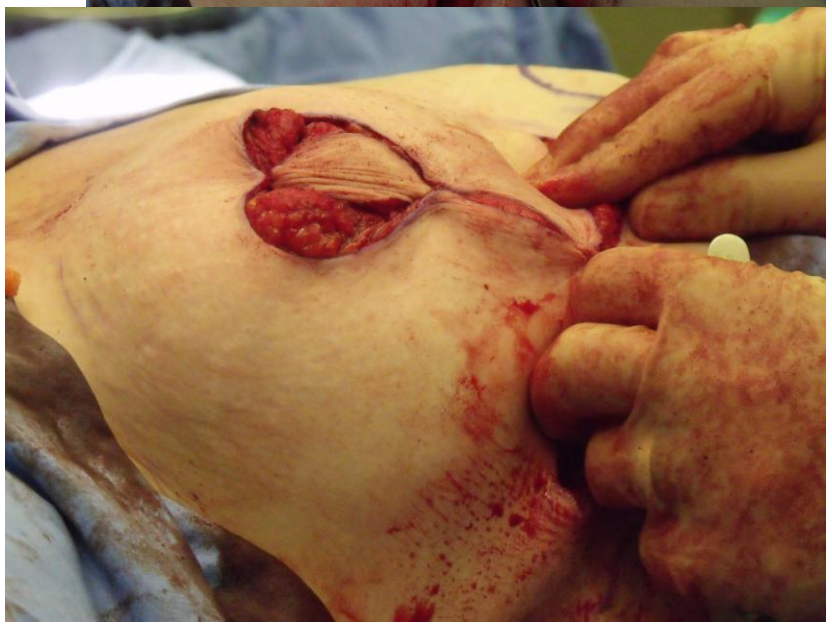
General Principles

- Discussion in oncoplastic , clinical radiology meetings prior to procedure
- Pre-operative skin markings denoting technique most likely to be used for that parenchymal excision
- Evaluation of the most likely technique (volume displacement or replacement) to be used
- Risk to nipple areolar complex, and best adaptation of the central breast mound
- Need for opposite breast symmetrisation, and selection of incisions, and techniques and scar placements for the opposite side

Volume displacement techniques





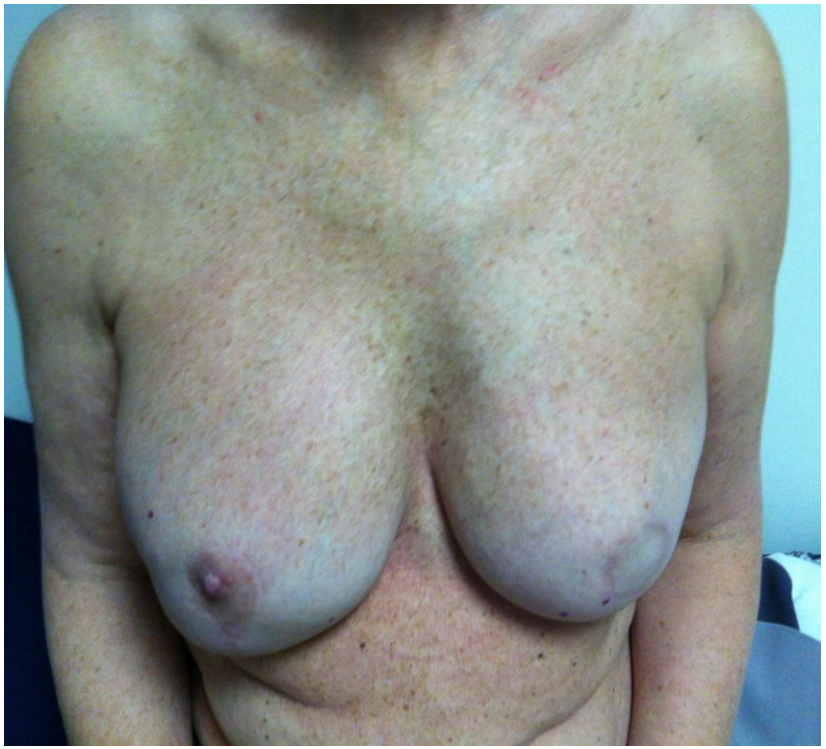


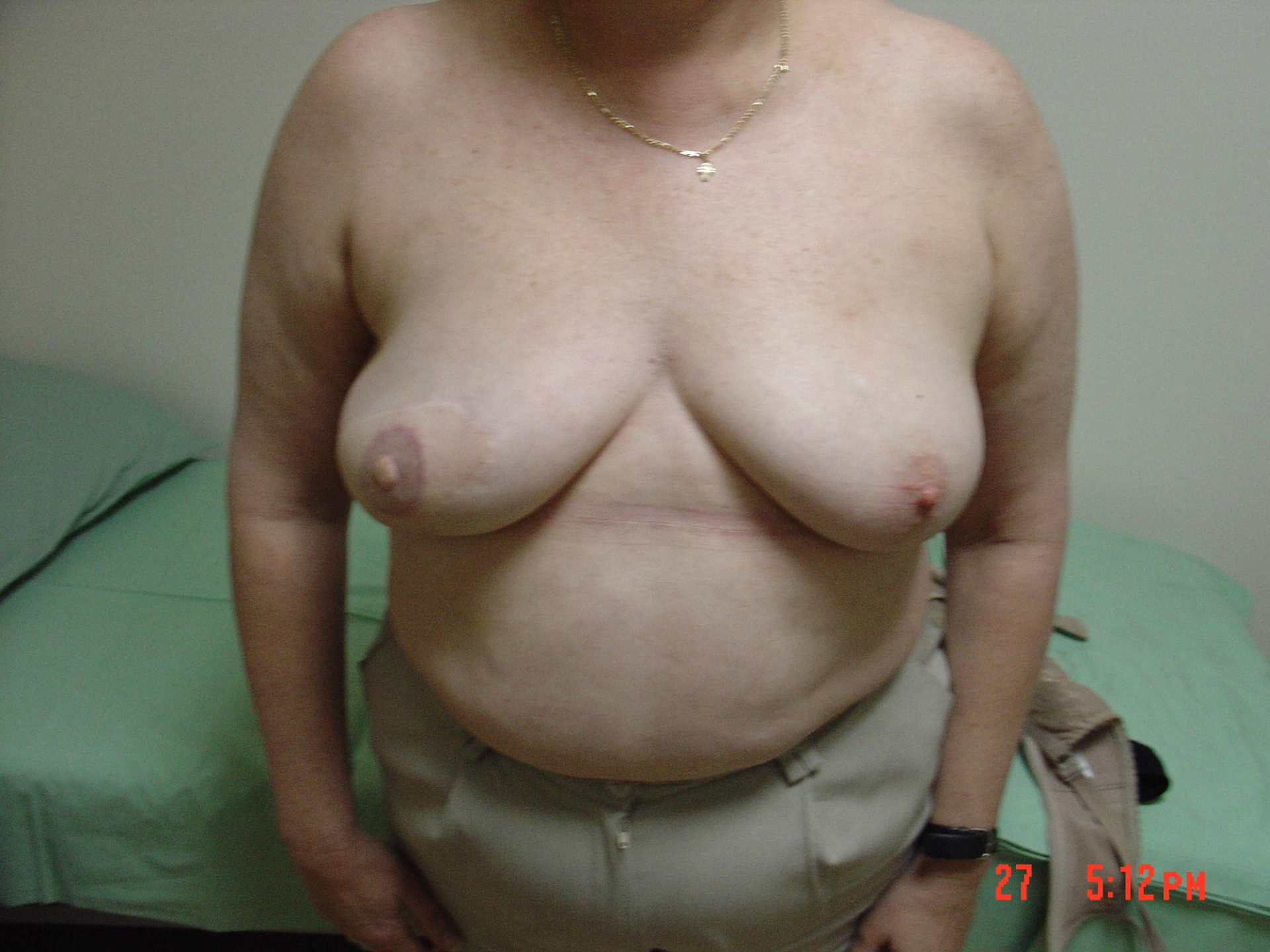
Retaining Nipple Areola

- Tumours that are located deep to the nipple areolar complex, may if intraoperative margins are clear result in retention of the nipple areolar complex
- Again care to ensure blood supply to the nipple areolar complex is retained is essential in performing this procedure

Volume replacement techniques

- In women, who prefer breast conservation surgery, but whose tumour to breast ratio prevents a volume displacement technique, the use of loco-regional flaps may be employed for central lesions

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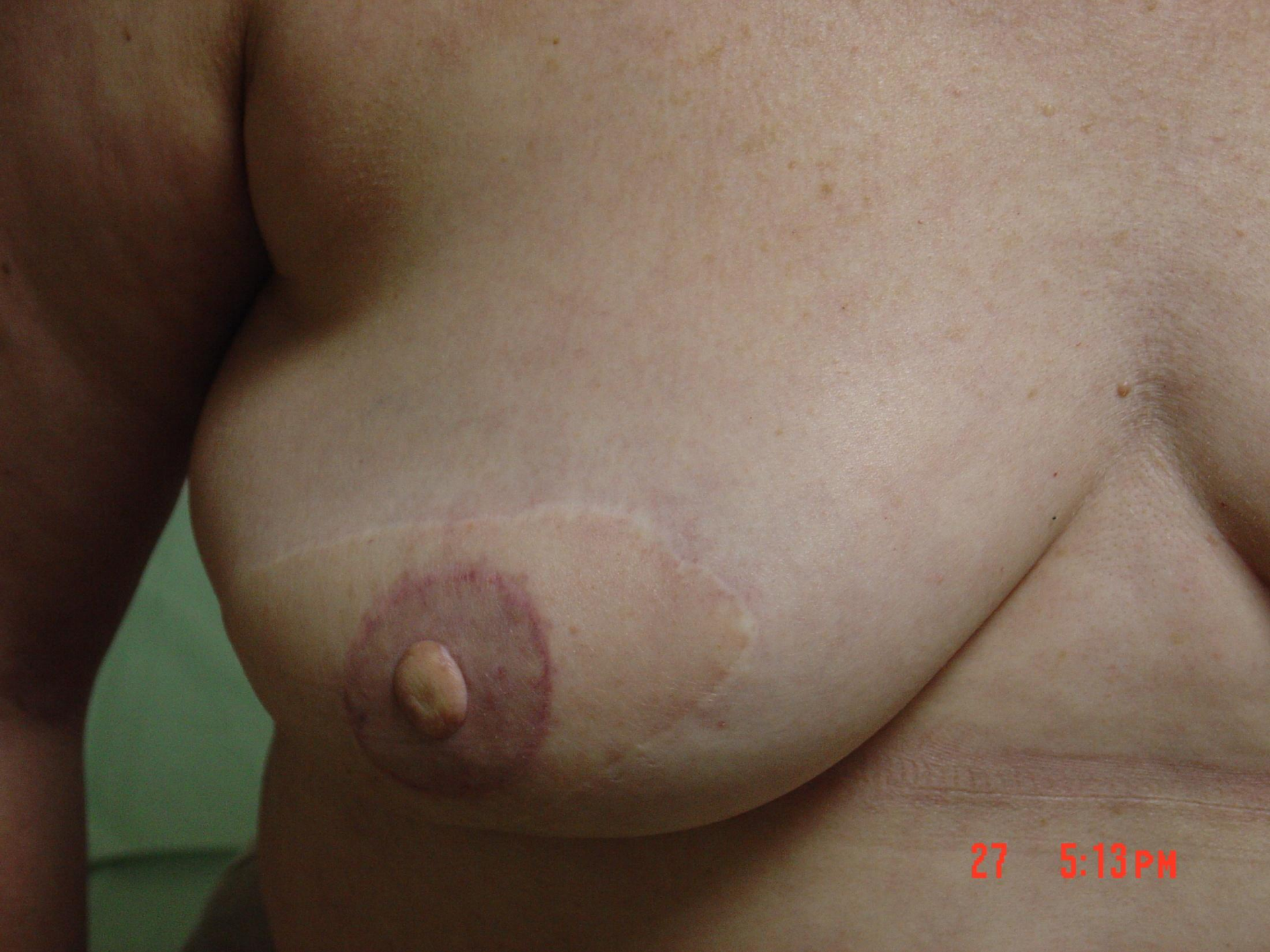
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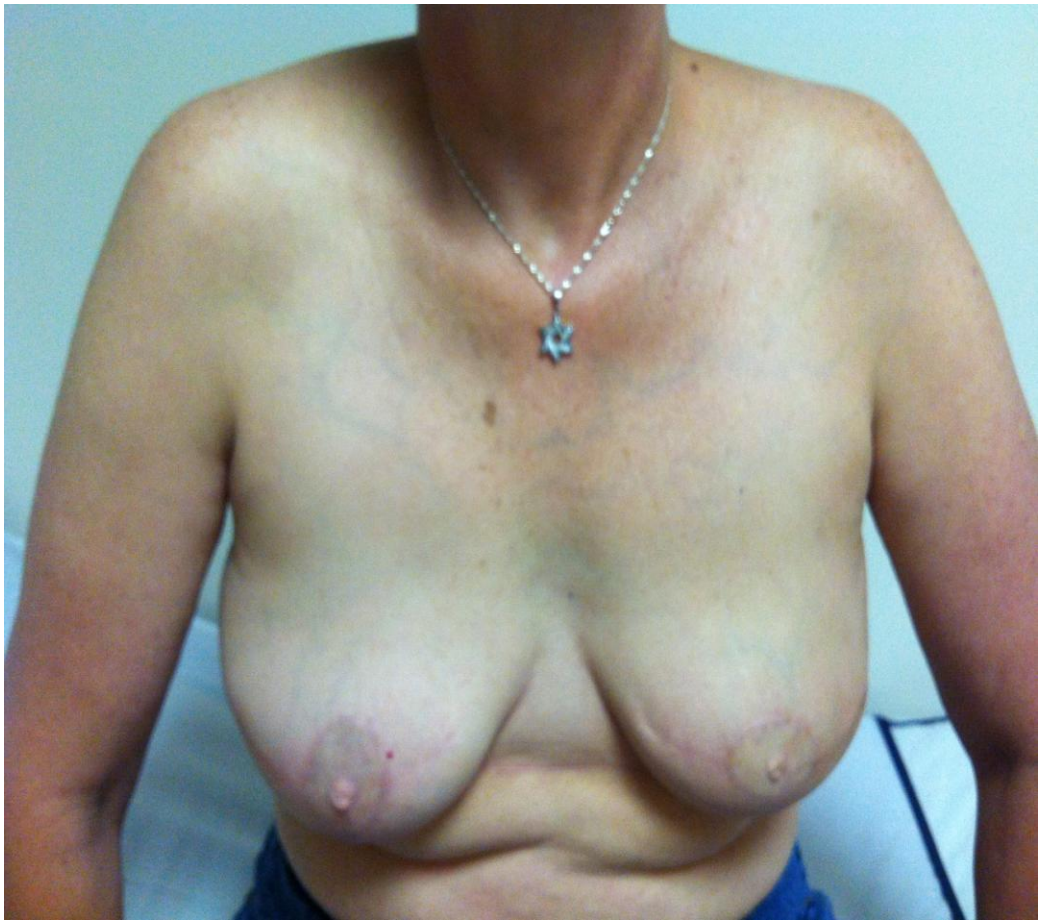
The Nipple

- Reconstruction of nipple areolar complex can be performed at the same procedure or at a later stage
- Delayed reconstruction is generally safer, and should be performed 6 months post radiation



Conclusions

- Central breast carcinomas are no longer required to be treated by mastectomy, and the use of a variety of oncoplastic techniques are available today to ensure a satisfactory cosmetic outcome while ensuring minimum complications and good long term oncological safety