

SINGLE STAGE EXPANDER-IMPLANT RECONSTRUCTION FOLLOWING MASTECTOMY FOR ADVANCED BREAST CANCER: DELIVERING THE NOVELTY IN NEW ZEALAND

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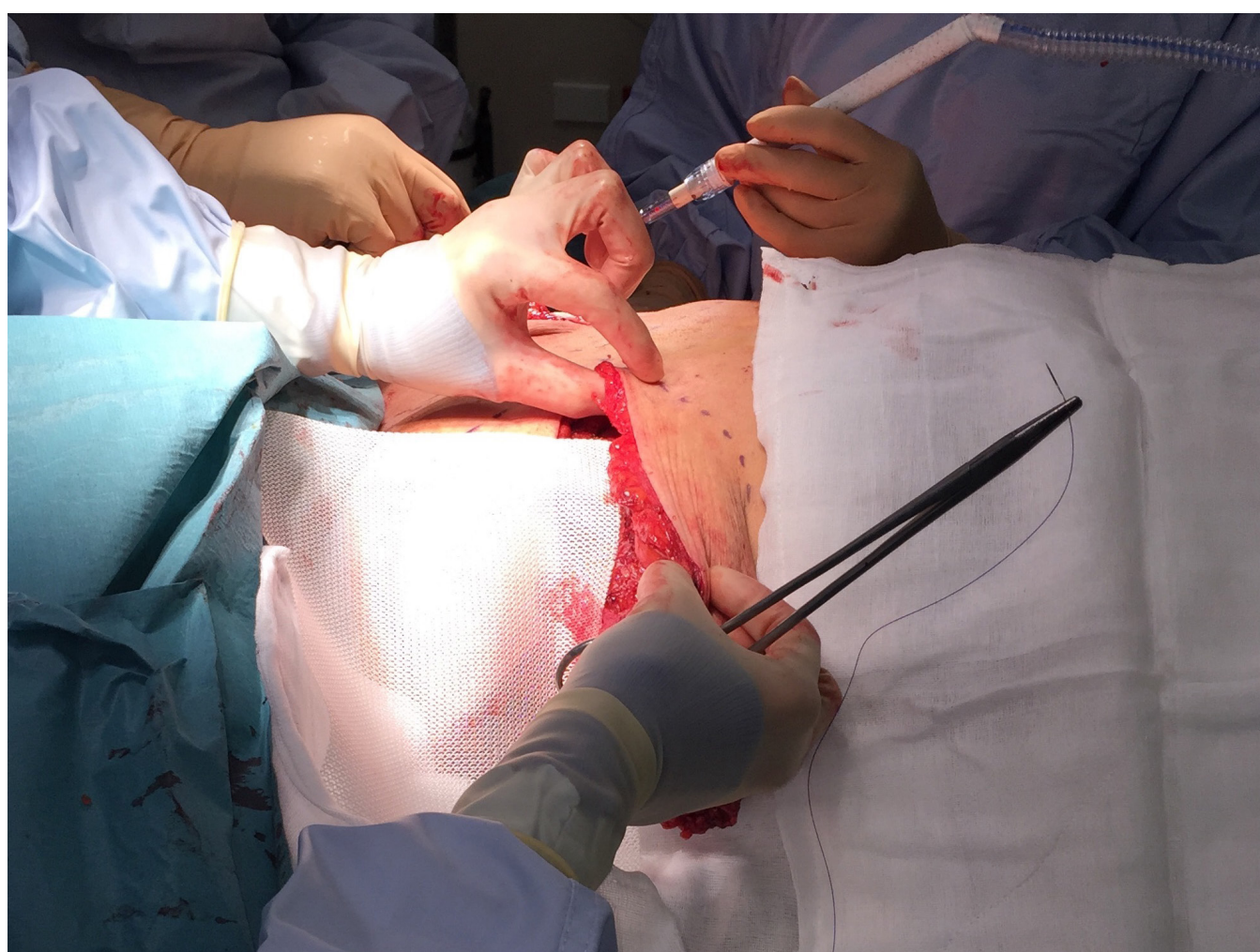
BACKGROUND

The psychological trauma of mastectomy in women with breast cancer is well documented [1-3]. Historically, many clinicians have perceived New Zealand women to be stoic and unconcerned about the prospect of mastectomy [3,4]. Current standard of care for multifocal breast cancer is simple mastectomy with axillary node clearance (ANC) without immediate reconstruction due to possibility of post-mastectomy radiation therapy (PMRT) [5]. This report describes a 57-year-old lady with previous breast augmentation 16 years ago, presenting with a self-detected left breast lump in November 2014 having had a normal screening mammogram in June. Multifocal left breast cancer with positive axillary lymph nodes was confirmed with diagnostic breast imaging and biopsy.

When standard treatment of mastectomy and axillary dissection while sacrificing her existing implant was discussed, this body-image conscious lady was very reluctant to about the prospect of losing her breast. An alternative oncoplastic approach popularized by MD Anderson Cancer Clinic, U.S [5] but novel to New Zealand, of an immediate-delayed one-stage nipple-sparing mastectomy with expander-implant reconstruction and TIGR mesh (Soma Technology) with axillary dissection was offered as a treatment option.



PRE-OP

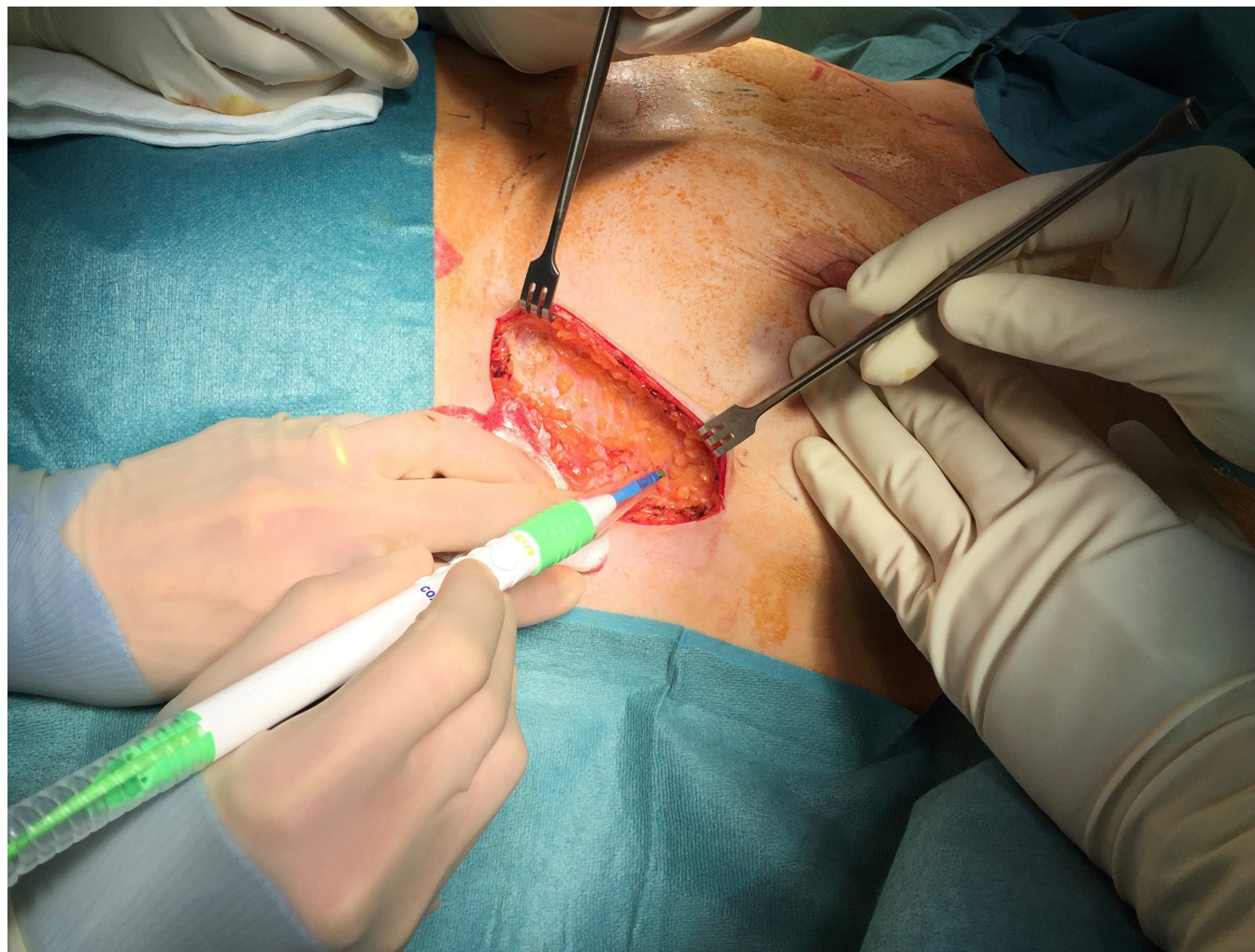


INTRA-OP

METHODS

The operation was performed on 5th December 2014 by a single oncoplastic breast surgeon following discussion at a combined surgical-oncology multi-disciplinary team meeting. The patient was counseled and fully informed of potential risks and complications of surgery in the setting of adjuvant chemoradiotherapy. Ethics approval was obtained from the NZ HDEC.

Nipple-sparing mastectomy was performed via an infra-mammary fold (IMF) incision. The Natrelle 150-SH inflatable expander-implant (Allergan, California) was placed in a sub-pectoral pocket with TIGR mesh (Soma Technology), and its mini-remote port overlying the lower ribs. The expander-implant was partially inflated to 150cc intra-operatively and slowly expanded post-operatively to a total of 230cc prior to commencing 24 weeks of adjuvant chemotherapy without delay (4 cycles Adriamycin/Cyclophosphamide, 12 cycles of Paclitaxel). The expander-implant was deflated (to 130cc) prior to PMRT planning with CT. Four weeks after completion of PMRT it was re-inflated to the desired volume. The mini-remote port's small metal backing remains outside the radiation field without interfering with treatment.



INTRA-OP



POST-OP 150 CC



POST-OP 230 CC



POST-OP IMF SCAR

RESULTS

Histology confirmed a triple negative (ER/PR and HER-2 on FISH), 36mm grade 3 invasive ductal carcinoma with associated high grade DCIS and positive LVI, negative surgical margins and 10/21 positive lymph nodes (largest micrometastases 12mm; 2 with extracapsular spread). The patient was discharged post-operatively on day 4 without complications; total seroma volume was 430ml and both drains were removed by day 6. High levels of satisfaction with aesthetic outcomes were reported at 3 weeks and 3 months. Photographs taken pre-operatively, post chemotherapy (8 months) and following PMRT (10 months) are as shown.



PRE-RADIOTHERAPY DEFLATION



POST-RADIOTHERAPY DEFLATION

CONCLUSION

Immediate-delayed reconstruction is feasible in women with locally advanced cancer, an option previously denied due to concerns of PMRT on aesthetic outcome. Preservation of the native breast skin envelope and nipple allows a woman to wake up from surgery without the trauma of mastectomy, and with a positive effect on her self-esteem and emotional well-being. The permanent nature of the expander-implant avoids the need for a second-stage reconstruction after PMRT, with potential for a bridging procedure should autologous reconstruction become necessary.

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