



# Oncoplastic Neoareolar Reduction Mammoplasty with Nipple Reconstruction: Expanding Indications for Breast Conserving Therapy

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## BACKGROUND

- Breast conserving therapy (BCT) is associated with improved quality of life and cosmetic outcomes compared to mastectomy
- Subareolar cancers abutting the nipple-areolar complex (NAC) present a unique cosmetic and oncologic challenge
- Oncoplastic central partial mastectomy using a neoareolar reduction mammoplasty with an immediate nipple reconstruction is a novel technique that can permit BCT in these patients

## METHODS

- Consecutive patients with central tumors who underwent partial mastectomy with neoareolar reduction mammoplasty and immediate nipple reconstruction were included in this series
- Patient demographics, imaging and pathology disease span, margin width, re-excision rates, mastectomy rates and cosmesis were evaluated

## RESULTS

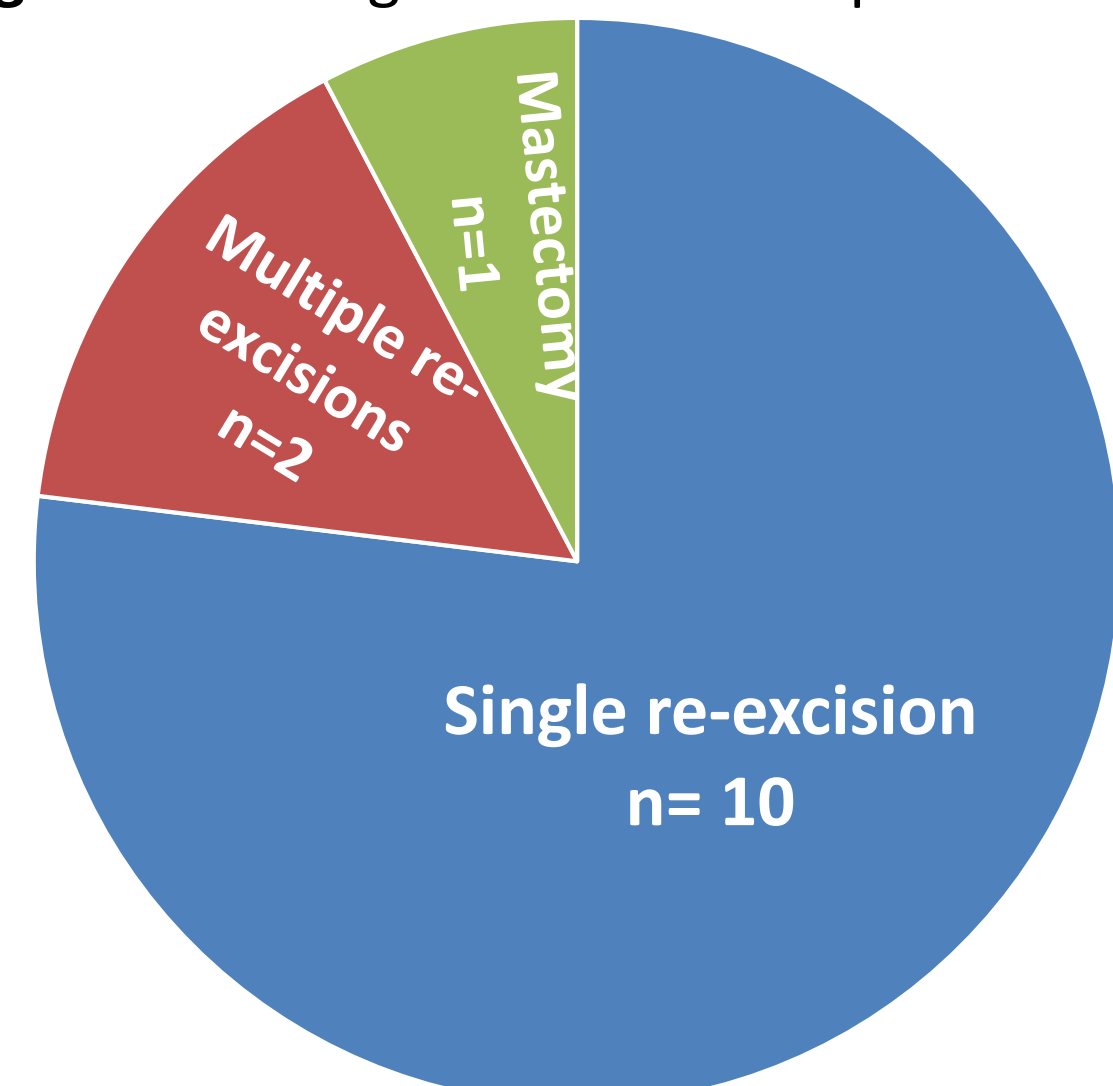
**Table 1.** Patient and lesion characteristics.

Characteristics	
Average patient age	61.8 ± 9.5 years
Average BMI	29.4 ± 5.9 kg/m <sup>2</sup>
Imaging size	51.5 ± 43.0 mm
Pathology size	59.5 ± 45.2 mm
Distance from nipple	3.3 ± 4.8 mm
Invasive carcinoma	18 (78.3%)
Presence of EIC	14 (60.9%)

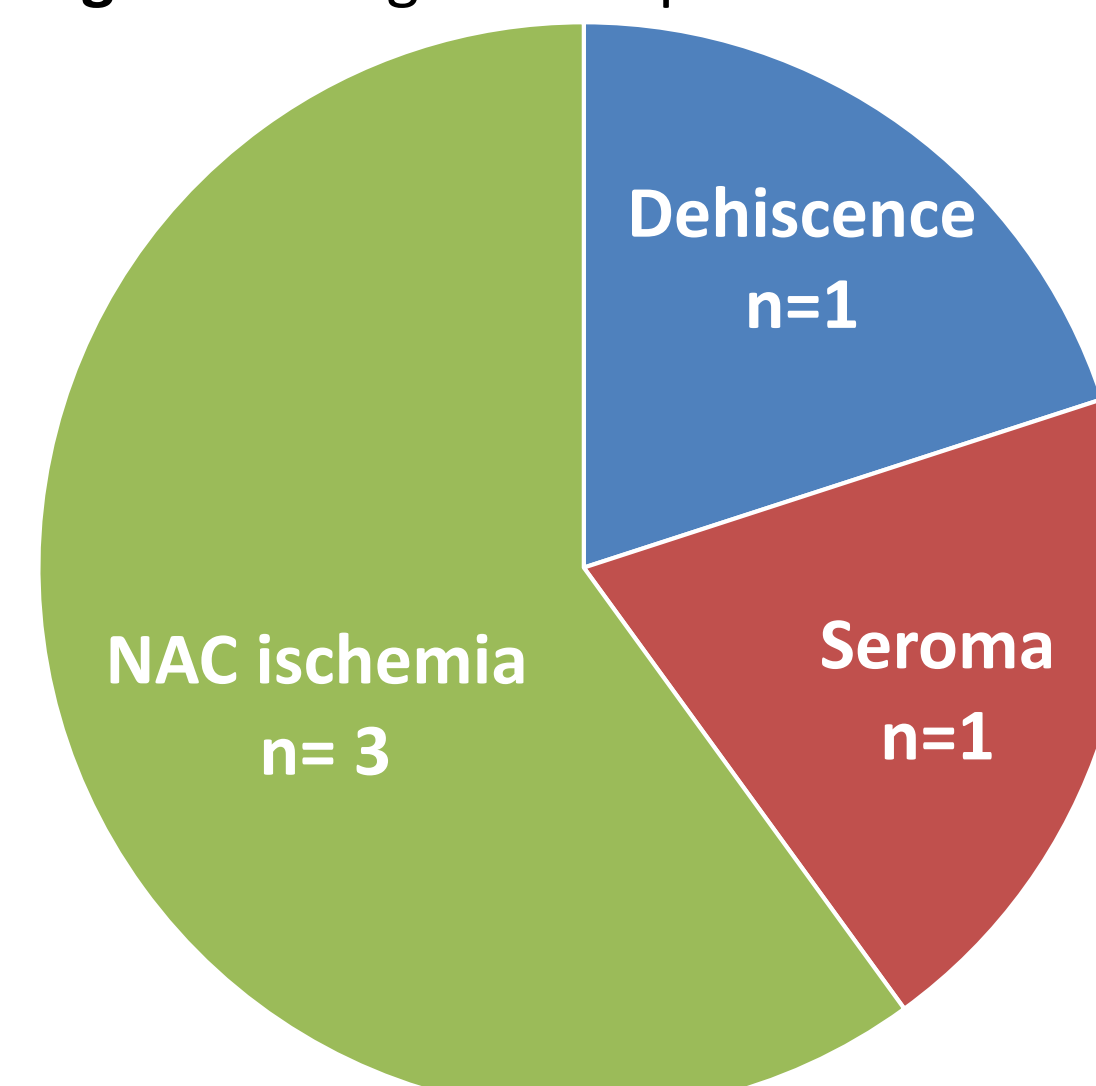
**Table 2.** Surgical outcomes.

Surgical Outcomes	Patients, N=23 (%)
No ink on tumor	22 (95.7%)
Surgery for <2mm margins	11 (47.8%)
Mastectomy	1 (4.3%)
Achieved BCT	22 (95.7%)
Good to excellent cosmesis	
Of 22 achieving BCT	21 (95.5%)
Of 6 with complications	5 (83.3%)
Complications	
Any	6 (26.1%)
Requiring reoperation	2 (8.6%)

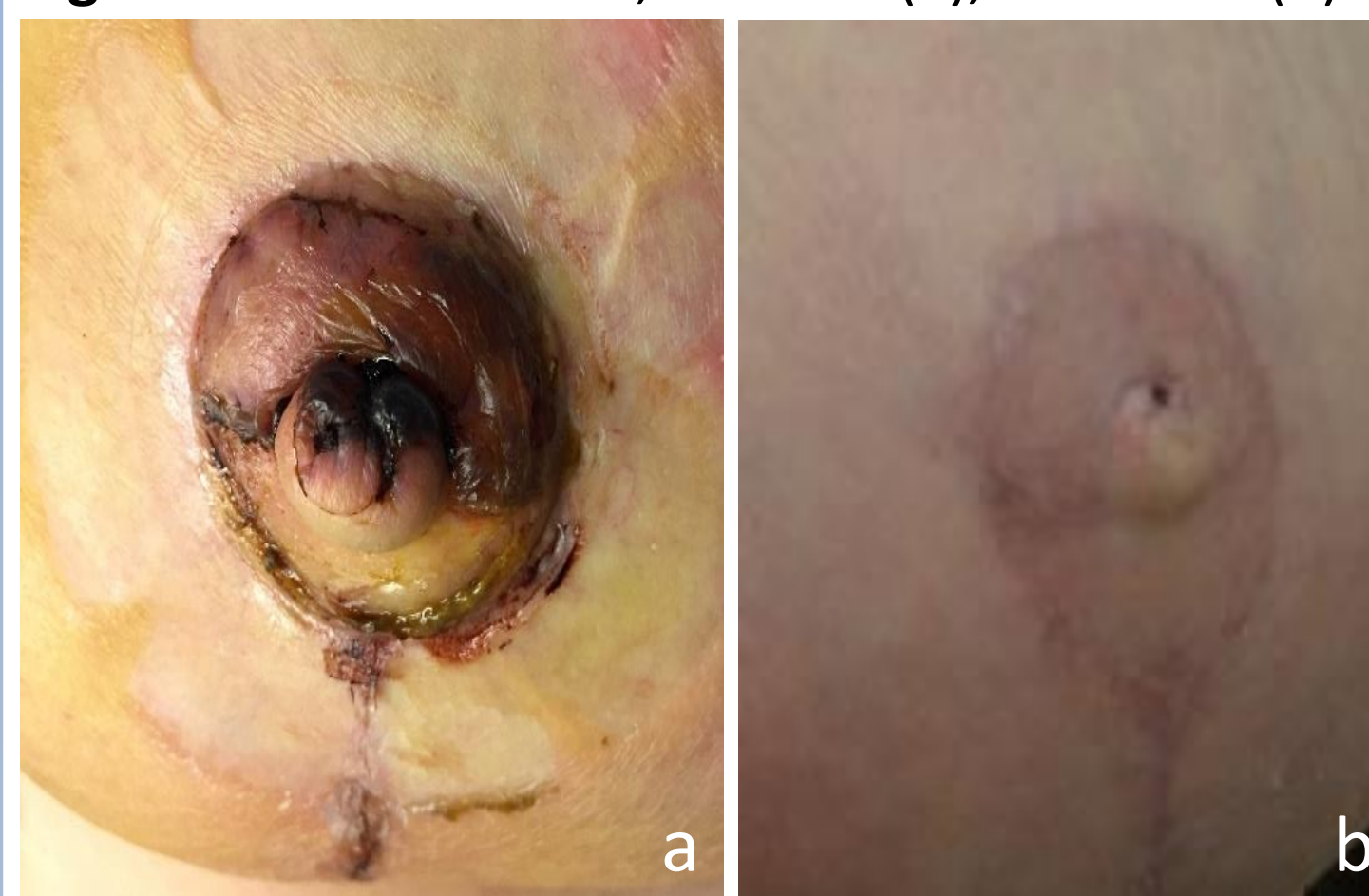
**Figure 1.** Management of inadequate margins.



**Figure 2.** Surgical Complications.



**Figure 3.** NAC ischemia, 2 weeks (a), 2 months (b).



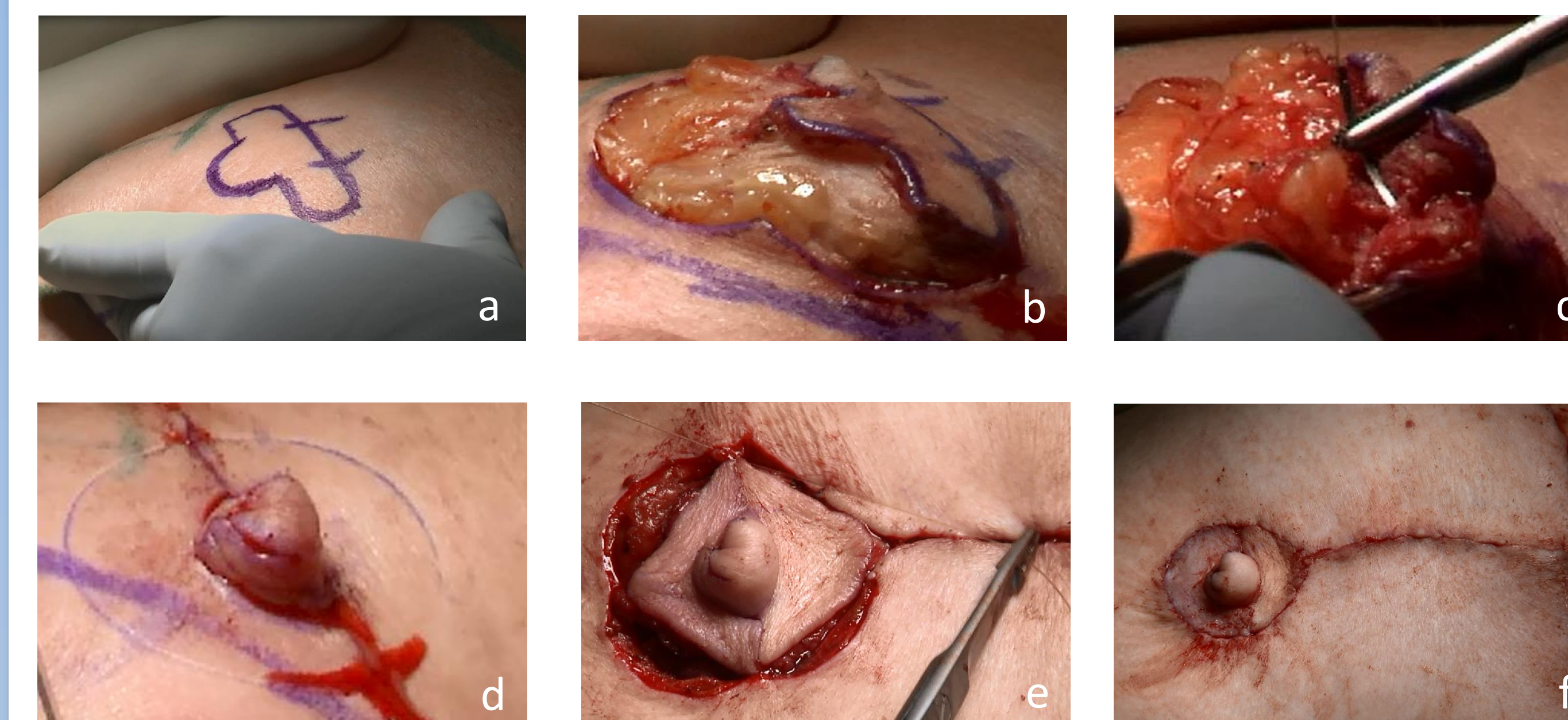
**Table 3.** Adjuvant therapy.

Adjuvant Therapy	
Chemotherapy	13 (56.5%) patients
Neoadjuvant	1 (4.3%) patient
Adjuvant	12 (52.2%) patients
Radiation therapy	21 (91.3%) patients
Endocrine therapy	14 (60.9%) patients
Time to adjuvant therapy	
Overall	48.2 ± 18.9 days
Re-excisions	51.1 ± 19.5 days
Complications	62.2 ± 27.4 days

**Figure 4:** 43-year-old woman with extensive left breast DCIS abutting the NAC. Preoperative photo (a). 2 weeks post-op following neoareolar reduction mammoplasty with nipple reconstruction (b). 2 weeks following re-excision and contralateral mastopexy for symmetry (c).



**Figure 5:** Stepwise approach to nipple reconstruction. An inverted T incision is marked (a) and elevated with electrocautery (b). The new nipple is then reapproximated (c) and the neoareola is marked (d). The cardinal sutures are placed (e) and the complex closure is completed (f).



## CONCLUSION:

- This single-stage oncoplastic approach allows patients with subareolar cancers abutting the NAC to consider BCT
- This technique avoids mastectomy and minimizes the number of operations required for reconstruction while maximizing cosmetic outcomes without delaying initiation of adjuvant therapies
- In this cohort, presence of EIC and pure DCIS resulted in frequent need for re-excision; however, re-excision can be successfully performed without significant compromise to cosmetic outcomes
- Further study is warranted to evaluate long-term oncologic and cosmetic outcomes associated with this approach