

A Single Surgeon Retrospective Review of Chest Masculinization Surgery in Transgender and Non-Binary Adolescents and Young Adults

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BACKGROUND

- Transgender and non-binary (TGNB) individuals assigned female at birth (AFAB) may pursue chest-masculinization surgery (top surgery) to alleviate chest and gender dysphoria.
- Outcomes and safety of top surgery among TGNB adolescents and young adults (AYA) remains largely unknown.
- The aim of this study was to assess surgical characteristics, outcomes and safety of top surgery in TGNB AFAB AYA patients and compare them to published outcomes in TGNB adults.

METHODS

- This is a single-surgeon retrospective cohort study.
- Inclusion criteria:
 - 16 to 24 years of age
 - AFAB
 - English speaking
- Variables of interest:
 - Demographic variables
 - Surgical characteristics
 - Complications
 - Outcomes: revisions, nipple pigmentation

RESULTS

Table 1. Overall Complications and Outcomes

Complication	Total Number of Patients (N = 95)	Total Number of Breasts (N = 190)	Total Number of Patients Undergoing Reoperation
Hematoma	19 (20.0)	21 (11.1)	6 (6.3)
Seroma	24 (25.3)	31 (16.3)	0 (0.0)
Infection	2 (2.1)	3 (1.6)	0 (0.0)
Asymmetry	2 (2.1)	NA	
Nipple Areolar Complex Loss	1 (1.1)	NA	1 (1.1)
Standing Cone Deformity	6 (6.3)	12 (6.3)	3 (3.2)
Hypertrophic Scar	7 (7.4)	NA	

Table 2. Major and Minor Complications in AYA and Adults

Major Complications	AYA (%)	Adults (%)
Hematoma Evacuation	6.3	1.6 - 9.09 *
Infection	2.1	0 - 4.17 *
NAC Necrosis	1.1	0 - 18.75 *

Minor Complications	AYA (%)	Adults (%)
Seroma	25.3	3.6 - 6.5 *
Hypertrophic Scar	7.4	2.8 - 13.6 *
Standing Cone	6.3	6.3 - 10.2 *
Asymmetry	2.1	0 - 25.0 *

*Values derived from literature review on complications in adult top surgery.

- Median age of 18.3 years with majority identifying as White, non-Hispanic and transgender man.
- Total number of re-operations:
 - Planned: 10
 - Unplanned: 6
- Multivariate analysis of hematoma outcome indicated BMI is predictive of greater odds of hematoma (OR 1.18, p=0.037)

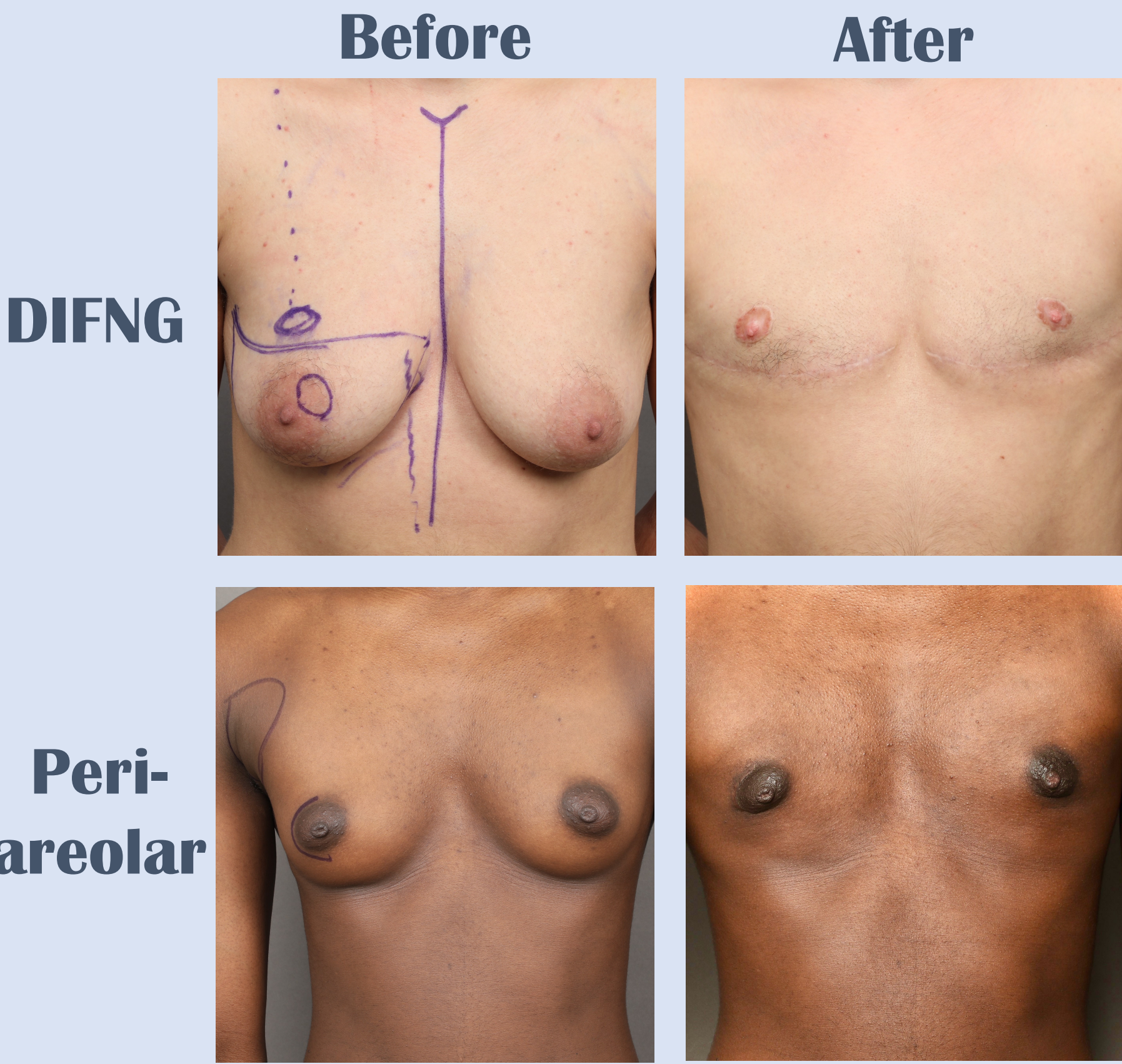


Figure 1. Most common surgical techniques utilized were double-incision mastectomy with free nipple graft (DIFNG) and peri-areolar mastectomy.

CONCLUSIONS

- Our findings provide healthcare professionals, insurers and legislators with evidence of safety in top surgery among TGNB AYA and complication rates comparable to those in TGNB adult patients
 - Frederick et al., 2017: patient median age of 24 years
- We present the largest retrospective review of top surgery outcomes in TGNB AFAB AYA patients thus far.
- Limitations to our study include:
 - Data collected relies on accurate EMR documentation
 - Limited generalizability
 - Lack of patient-reported outcomes

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