The Triple Confirmation Technique for Optimal Nipple Position in Transgender Chest Masculinization

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Purpose:
A key element in the creation of an anatomically accurate and aesthetically pleasing male chest is the appearance of the nipple areolar complex (NAC). It can be a challenge to determine the ideal position of the NAC in the transgender population. The authors present a novel technique to determine the best location and aesthetics of the female to male NAC.

Methods:
This prospective study includes patients who underwent female to male mastectomy with free nipple grafting by the senior author. After double incision mastectomy via the inframammary fold, the NAC graft is trimmed to an oval shape measuring 28mmx25mm. The position of the NAC is then confirmed using three steps. First, the vertical coordinate is determined at the level of the 4th rib near the border of the pectoralis muscle. Second, the horizontal coordinate is determined by dividing each unilateral chest into vertical thirds from midline to anterior axillary line laterally. The NAC position is confirmed at the junction of the middle and lateral third (Figure 1). Third, symmetry is ensured bilaterally by creating a triangle; the base lies from sternal notch to inframammary fold in the midline and the apex is adjusted to the NAC. This apex is transposed from side to side to ensure symmetry (Figure 2).

Results:
31 patients were included in this study. The average age was 29 years and average BMI 29.4. 84% of patients were receiving testosterone therapy and 25% were active smokers. There were two cases which developed a unilateral hematoma, both of which were evacuated successfully with no long-term aesthetic consequence. Two patients underwent revision surgery for dog ear
excision. All patients were highly satisfied with the aesthetic result post-operatively with a mean follow-up time of 5 months (Figure 3). Especially in the 12 overweight patients (BMI >25) and 9 obese patients (BMI >30), the NAC position was noted intra-operatively to be more aesthetically pleasing using the triple confirmation technique rather than relying solely on position relative to the pectoralis muscle.

Conclusion:

The location of the nipple areolar complex in transgender female to male patients is of paramount importance to create a natural male chest appearance. The triple confirmation technique is an easy, reproducible method to guide the surgeon in relocation of the nipple areolar complex.

Figure 1

Figure 2

Figure 3: