

A New Conceptual Approach of Voice Feminization: 14 Years of Experience

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Background

Voice feminization has been developed with various surgical techniques to increase the voice pitch. Until now, surgical methods for feminizing voice have focused on a concept of pitch raising principles individually. However, feminization of voice should reestablish the phonatory biofeedback mechanism and phonatory pattern to obtain a more clear, feminine voice. The purpose of this study was to evaluate 14 years log-term experience of the new conceptual approach, including the new endoscopic surgical technique; vocal fold shortening and retrodisplacement of anterior commissure(VFSRAC) and the voice pattern rehabilitation, that was performed in patients who were androphonias in female or male-to-female transsexuals.

Methods

A retrospective study was performed on 362 patients who underwent VFSRAC (34 with androphonia, eight with androgenital syndrome, four with aplastic anemia treated with androgens, three with pseudohermaphroditism, and 313 male-to-female [MTF] transsexuals) and phonatory pattern rehabilitation between 2003 and 2014. Subjective and perceptual assessments, aerodynamic and acoustic assess-

ments, and a videostroboscopic assessment were evaluated pre- and postoperatively in the female androphonia group and the MTF transsexual group.

Results

Mean preoperative fundamental frequency (F0) was 144.1 Hz, and mean postoperative F0 was 207.4 Hz, 6 months postoperatively. The mean increase of F0 in the female androphonia group was 53.0 Hz but was 73.6 Hz in the MTF transsexual group after the postoperative phonatory pattern retraining program. Voice femininity increased on the postoperative subjective assessment. Acoustic and aerodynamic assessments were within the normal range. Regularity of the vocal fold mucosal wave were maintained in the normal range. These findings suggest that patients could achieve a natural phonation pattern after surgery.

Conclusion

Our new approach of voice feminization, VFSRAC, and retraining of phonatory pattern was effective for patients who want to have natural feminine voice.

Keywords

Voice feminization, Vocal fold shortening, Glottoplasty, Transgender, Voice therapy