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IP Indian Journal of Anatomy and Surgery of Head, Neck and Brain

Journal homepage: https://www.ijashnb.org/

Editorial

Voice of empowerment: Transforming lives with Wendler's Glottoplasty

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ARTICLE INFO

Article history:
Received 15-042024
Accepted 27-04-2024
Available online 07-05-2024

Transsexualism represents a complex intersection of gender identity, where individuals perceive a disconnect between their psychological and anatomical genders. Predominantly, males seeking reassignment as females (male-to-female transsexualism [MFT]) comprise the majority (75%) of transsexuals. In contemporary society, transsexual individuals encounter greater societal acceptance and more accessible medical support compared to earlier times. The journey of MFT transformation is multifaceted, typically involving various stages such as assessment by mental health professionals, hormonal replacement therapies, numerous cosmetic and reconstructive surgeries, and behavioral adjustments preceding feminization. Many individuals undergo sex reassignment before consulting an otolaryngologist, despite undergoing multiple interventions, MFT individuals frequently express dissatisfaction with their masculine-sounding voices. While voice is often regarded as a secondary sexual characteristic, it serves as a significant gender marker. Acquiring a feminine voice is integral to the comprehensive gender transition process for MFT individuals. Vocal pitch, notably fundamental frequency (F0), stands as the most fundamental sex-specific voice characteristic, with females generally exhibiting a higher F0 than males. Unlike testosterone therapy in female-to-male transsexuals, which deepens vocal pitch, estrogen administration to MFT individuals in adulthood does not affect vocal fold or laryngeal structure, thereby maintaining an anatomically male larynx. Speech therapy can effectively elevate pitch and feminize voice, along with modifying vocal behaviors such as breathiness, intonation, articulation, word choice, and inflection. However, the masculine voice may resurface in involuntary situations like yawning, coughing, sneezing, and laughter. MFT individuals aspire for a naturally feminine voice rather than perpetually exerting effort to sound feminine, which can potentially lead to functional and organic voice pathologies. In many instances, the voice exhibits characteristics resembling hyperfunctional dysphonia, accompanied by subjective complaints such as hoarseness, sensation of a lump in the throat, and vocal fatigue. Consequently, surgery aimed at achieving a higher F0 presents an alternative solution. Various surgical techniques have been proposed to elevate voice pitch, with the cricothyroid approximation (CTA) method, as described by Isshikki et al (Isshiki type IV thyroplasty), being among the most recognized. Wendler introduced a fully transoral technique in 1990, aiming for long-term outcomes.[1] The following article delves into the intricacies of the Wendlers Glottoplasty procedure.

Preoperative evaluationDuring preoperative assessment, patients underwent a comprehensive clinical examination, along with a stroboscopic examination of the vocal cords and acoustic voice evaluation as the purpose was to detect the fundamental frequency using MDVP software. Patients

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https://doi.org/10.18231/j.ijashnb.2024.001

were provided with the Trans Woman Voice Questionnaire (TWVQ) forms as part of their preoperative assessment.

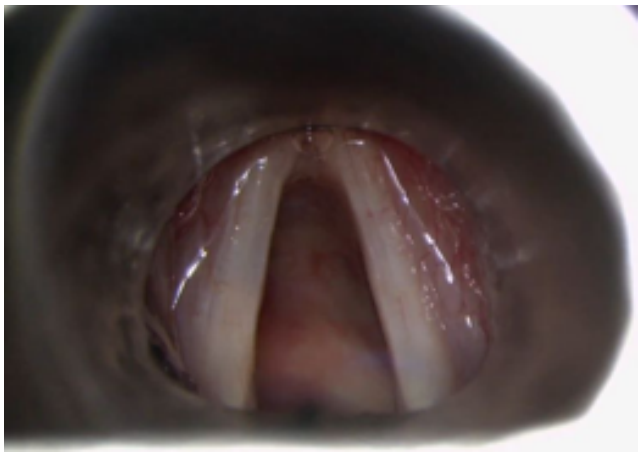

Figure 1: Normal vocal cords

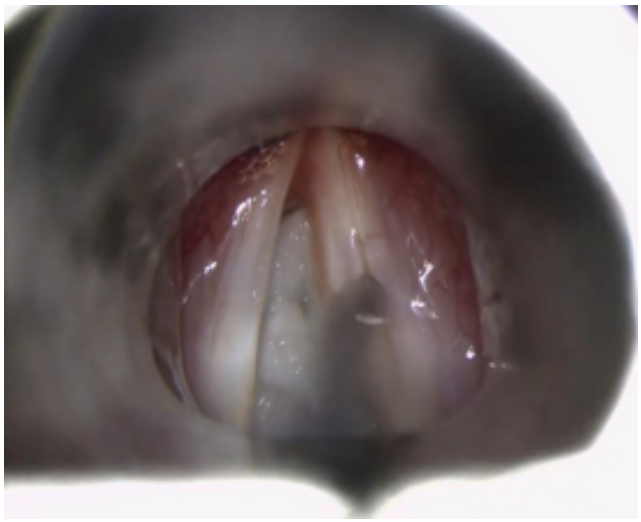

Figure 2: Infiltration into the vocal folds

Indication

Wendler's Glottoplasty presents a viable option for transgender individuals seeking voice feminization surgery to transition from a male to a female vocal register.

Steps

Patients undergo Wendlers glottoplasty under general anesthesia with orotracheal intubation in supine position

1. The surgical technique follows the method described by Wendler.(Figure 1)
2. The larynx is exposed using a rigid suspension laryngoscope.

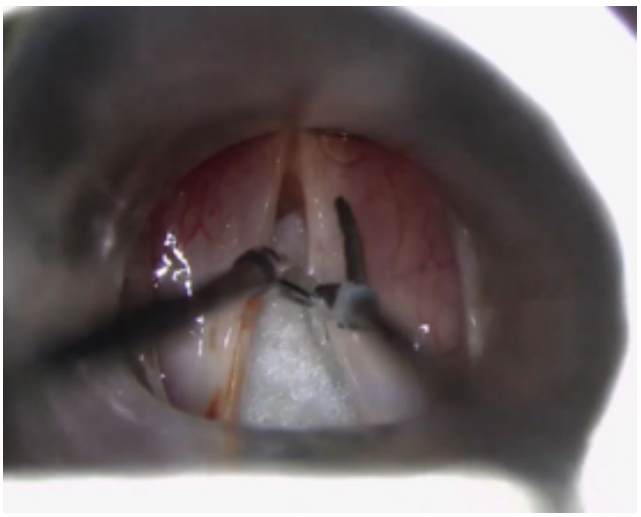

Figure 3: Freshening of the anterior aspect of vocal cords

Figure 4: Suturing by 6-0 vicryl

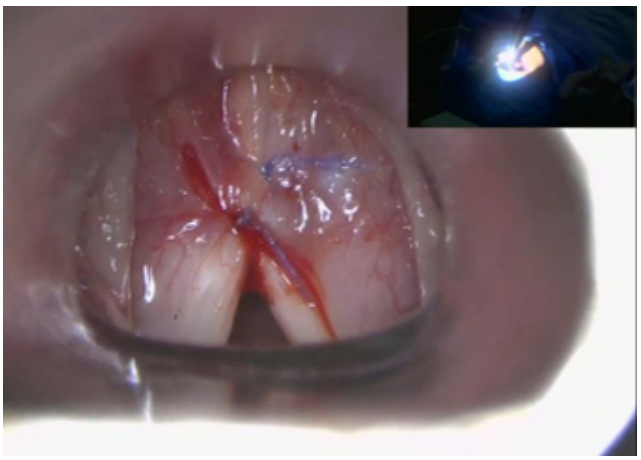

Figure 5: Anterior aspect of the vocal fold sutured

3. Infiltration is given using normal saline just beneath the epithelial layer of the vocal fold (Figure 2)
4. The anterior third of the membranous portion of the vocal folds, including the free edge and superior and inferior sides, is de-epithelialized using cold curved microscissors.(Figure 3)
5. Preservation of the vocal ligament is ensured in all cases.
6. The de-epithelialized portion is sutured together with 2 or 3 sutures, utilizing 6.0 Vicryl with a 15 mm gauge needle.[2] (Figure 4)
7. The desired synechia size is set at 33% of the anteroposterior length of the membranous portion of the vocal folds.(Figure 5)

Postoperative

In the postoperative phase, patients were advised to observe complete vocal rest for 14 days, followed by a period of relative vocal rest for an additional 14 days. Additionally, patients were prescribed proton pump inhibitor (omeprazole for 30 days), antibiotic (amoxicillin-clavulanate for 7 days), and antitussive medication if deemed necessary.

Follow Up

Patients undergoing Wendlers Glottoplasty should attend follow-up appointments at the 2nd and 4th weeks post-procedure, and subsequently on a monthly basis for up to one year. During these follow-up visits, videolaryngostroboscopy should be conducted to examine the larynx for any signs of edema, scarring, presence of suture material, and assess the quality of vocal cord vibration. Once the anterior web has healed and formed, patients can gradually resume normal voice use and consider engaging in speech therapy as needed.

Source of Funding

None.

Conflict of Interest

None.

References

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2. Aires MM, Vasconcelos D, Lucena J, Gomes AOC, Moraes BT. Effect of Wendler glottoplasty on voice and quality of life of transgender women. *Braz J Otorhinolaryngol*. 2023;89(1):22–9.

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Cite this article: Padmanabhan K. Voice of empowerment: Transforming lives with Wendler's Glottoplasty. *IP Indian J Anat Surg Head, Neck Brain* 2024;10(1):1-3.