Musikphysiologie und Musikermedizin in anderen Publikationen

Englischsprachige Abstracts

Phonomicrosurgery in Vocal Fold Nodules: Quantification of Outcomes in Professional and Non-Professional Voice Users

Caffier PP, Salmen T, Ermakova T, Forbes E, Ko S-R, Song W, Gross W, Nawka T

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Abstract: There are few data demonstrating the specific extent to which surgical intervention for vocal fold nodules (VFN) improves vocal function in professional (PVU) and non-professional voice users (NVU). The objective of this study was to compare and quantify results after phonomicrosurgery for VFN in these patient groups. METHODS: In a prospective clinical study, surgery was performed via microlaryngoscopy in 37 female patients with chronic VFN manifestations (38±12 yrs, mean±SD). Pre- and postoperative evaluations of treatment efficacy comprised videolaryngostroboscopy, auditory-perceptual voice assessment, voice range profile (VRP), acoustic-aerodynamic analysis, and voice handicap index (VHI-9i). The dysphonia severity index (DSI) was compared with the vocal extent measure (VEM). RESULTS: PVU (n=24) and NVU (n=13) showed comparable laryngeal findings and levels of suffering (VHI-9i 16±7 vs 17±8), but PVU had a better pretherapeutic vocal range (26.8±7.4 vs 17.7±5.1 semitones, $p<0.001$) and vocal capacity (VEM 106±18 vs 74±29, $p<0.01$). Three months postoperatively, all patients had straight vocal fold edges, complete glottal closure, and recovered mucosal wave propagation. The mean VHI-9i score decreased by 8±6 points. DSI increased from 4.0±2.4 to 5.5±2.4, and VEM from 95±27 to 108±23 ($p<0.001$). Both parameters correlated significantly ($rs=0.82$). The average vocal range increased by 4.1±5.3 semitones, and the mean speaking pitch lowered by 0.5±1.4 semitones. CONCLUSIONS: These results confirm that phonomicrosurgery for VFN is a safe therapy for voice improvement in both PVU and NVU who do not respond to voice therapy alone. Top-level artistic capabilities in PVU were restored, but numeric changes of most vocal parameters were considerably larger in NVU.

Fundamental Tongue Motions for Trumpet Playing: A Study Using Cine Magnetic Resonance Imaging (Cine MRI)

Furuhashi H, Chikui T, Inadomi D, Shiraishi T, Yoshiura K

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Abstract: OBJECTIVE: Though the motions of structures outside the mouth in trumpet performance have been reported, the dynamics of intraoral structures remain unelucidated. This study explored the tongue`s movement in trumpet playing using cine magnetic resonance imaging (cine MRI) and demonstrated the effects of intraoral anatomical structures on changes in pitch and dynamics. METHODS: Cine MRI was