



**To: Dr. Hoffman** *The University of Iowa*  
**From: Michael P. Karnell, Ph.D.** **VIDEOSTROBOSCOPY**  
**and LARYNGEAL**  
**FUNCTION STUDIES**  
**Re: Jane Doe** **Unit #: 7654321**  
**Date: 9/6/96**

Your patient, Ms. Doe, a 37 year old female, was evaluated at the University of Iowa O-HNS Speech, Voice, and Swallowing service on 9/6/96. The following is a summary of our findings.

**Historical Notes and Presenting Information:**

This patient returns for follow-up following gortex thyroplasty. The patient's own rating of voice quality today was 1 where 0 = completely normal and 6 = severely abnormal. The patient estimated current voicing effort was 125 where 100 = normal effort, 200 = twice normal effort, etc. The patient rated the impact of the problem on quality of life as 1 where 0 = no impact and 6 = profound impact. The patient's reported history was negative for smoking, negative for alcohol abuse, negative for symptoms of reflux, negative for chronic sinusitis, negative for environmental allergies, negative for vocal abuse or overuse.

**Laryngeal Function Studies:**

The patient's voice quality was mildly dysphonic. Voice quality today was characterized by no roughness, mild breathiness, no asthenia, and no strained quality. Perceived habitual pitch was judged to be within normal limits. Vocal pitch range was judged to be within normal limits. Acoustic measurement of maximum phonational frequency range was abnormally restricted at 16.4 semitones (normal > 20 semitones). Pitch breaks were not observed during the evaluation. Measured fundamental frequency during habitual pitch production was 211.6 Hz. Mean relative jitter (1.982%) was high (>1.041%). Mean relative shimmer (3.392%) was within normal limits (<3.819%). Mean noise-to-harmonic ratio (0.145%) was within normal limits (<.191). S/Z ratio (1.0) was within normal limits. Maximum phonation time was 29 seconds. EGG waveform amplitude was normal indicating normal vocal fold contact. The shape of the EGG waveform was within normal limits. EGG open quotient appeared within normal limits.

**Videostroboscopy:**

Videostroboscopy with synchronized electroglottography (EGG) was performed. The quality of the video record was excellent. The medial edge of the vocal folds appeared smooth and straight on the right and appeared smooth and straight on the left. No supraglottic compression was observed. Glottal closure was incomplete. The amplitude of right vocal fold movement was greater than the amplitude of left vocal fold movement. Amplitude of right vocal fold vibration was within normal limits. Amplitude of left vocal fold vibration was slightly reduced. Vocal fold vibration was consistently symmetrical. The right vocal fold mucosal wave was within normal limits. The left vocal fold mucosal wave was within normal limits. No adynamic segments were observed affecting the right true vocal fold. No adynamic segments were observed affecting the left true vocal fold.

**Primary Diagnosis (subject to medical confirmation):**

Left TVF paralysis

**Secondary Diagnosis (subject to medical confirmation):**

Left arytenoid granuloma.

**Other Observations:**

Left TVF erythema (improved since last visit)

**Recommendations:**

1. Repeat speech and swallowing evaluation

**Figure IC-3.** Example of Report from Speech-Language Pathologist and Attachments

(continued)