

LARYNGEAL AIRWAY RESISTANCE AS A FUNCTION OF PHONATION TYPE.

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Abstract

An indirect method to estimate laryngeal airway resistance was investigated. The ratio of the intraoral pressure (IOP) for the voiceless stop and the volume air flow (V_o) for the open vowel in the CV utterance /pa/ was suggested to give an estimate of the laryngeal airway resistance (R_{law}); $R_{law} = IOP/V_o$. The primary variable was phonation type. It was hypothesized that the R_{law} value would reflect the laryngeal airway resistance during 1) normal, 2) pressed and 3) breathy phonation. Other controlled variables were intensity and fundamental frequency. The results suggested that the R_{law} value was highest for pressed phonation and lowest for breathy phonation irrespective of intensity and fundamental frequency. Good discrimination in the R_{law} value between high and low intensity was also found. These results were interpreted to give evidence that the R_{law} value obtained with this method was a good index of actual resistance.

References

- Hixon T.J. A Clinical Method for Estimating Laryngeal Airway Resistance during Vowel Production. Personal communication.
- Netsell R. 1969. Subglottal and Intraoral Air Pressures during the Intervocalic Contrast of /t/ and /d/. *Phonetica* Vol 20 No 2-4.