

Characteristics of Intraoral Air Pressure, Airflow in Relation to Phonatory Efficiency in Cleft Palate Speakers

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Recent aerodynamic and acoustic studies of VPI (velopharyngeal insufficiency) are non-invasive and safety, therefore, many researchers have used it to diagnose the hyper/hyponasality and articulation disorders of cleft palate patients. The purpose of this study was to estimate mainly the oropharyngeal air pressure and over all air flow in cleft lip and palate patients. The pressure-collecting catheter was positioned in the oropharyngeal cavity around tongue base. Twelve adult control group and three cleft lip & palate patients were participated to this experimentation. Aerophone II was used to measure peak air flow, mean air flow, phonatory airflow, phonatory efficiency and resistance. The results were as follows: 1) Airflow of cleft lip & palate patients group were higher than those of control group. Fricative sounds /s/ and /s'/ showed the statistic significance of mean airflow and volume data. 2) Intraoral air pressure of cleft lip & palate patients was lower than those of control group.