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RESEARCHES OF INFANT'S CRY

Abstract

This paper is a review of infant's cry acoustic analysis in Croatia. The purpose of all researches is establishing acoustical characteristics of infant's cries as a help in diagnostic of voice disorders. The research from 2000. analyzed two types of seven cries: very first cry (birth stimulus) and following continues signal. Results of acoustic analysis indicate better cry characteristics in continues signal after first cry characterized by noise and strong frequency oscillations. The second research form 2001. shows differences in fundamental tone frequencies between two days old girl with intracranial bleeding and healthy girl. The fundamental frequency of the healthy girl's cry was 47.8 Hz lower than the fundamental frequency of the sick girl. The main purpose of the third research from 2001. was to follow acoustical voice characteristics of boy and girl to first word production. Different types of vocalizations were analyzed from 2. to 11. month of life (in five different time periods). The fourth research form 2006. showed results of acoustic analysis of voice of newborn babies as a function of discrimination of specific voice features in premature born babies. Premature birth represents potential risk for overall infant development. As far as communication is concerned, the results of several researches show that premature birth represents a risk factor for speech-language development. Some differences were established between two groups of babies: premature born babies showed significantly higher fundamental frequency (over 600 Hz), larger fundamental frequency range, less sound energy in the voice and more uneven sound realization of cries than controls did. The obtained results can be used in diagnostics, but also as predictors of oral communication. On the basis of several procedures and voice analysis programs were used in all researches of this review (MDVP, Gram 2.3., EZ Voice Plus).

Key words: first new-born cry, acoustic analysis of the newborn cry, help in diagnostic, fundamental frequency, noise, jitter, intracranial bleeding, follow up of cry characteristics, premature born babies.