GDV INVESTIGATION OF BIOLOGICAL SIGNATURE FOR STUTTERING

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Abstract: Gas Discharge Visualization (GDV) has been reported as a non-invasive imaging technique used to assess the functional state of human body by recording the responses of the autonomic nervous system to a high intensity electromagnetic field using fingertips. The process of GDV screening involves capturing and filtering of GDV images, obtaining numerical values, creating graphs and diagrams, and saving data as well as transferring data for additional software processing. It has been used in the investigation of autism from a biometric perspective, identification of a unique signature of foreign language anxiety, research of physical exercise and its influence on cognition and influence of far infrared irradiation on human organism. Stuttering is a speech disorder which manifestations include perceptible episodes of speech disfluency. Stuttering is the condition in which the flow of speech is broken by abnormal pauses (no sound), repetitions (st-stuttering), or prolongations (sssstuttering) of sounds and syllables. More than 3 million people in the United States suffer from stuttering. Most children outgrow this problem and become perfectly capable speakers. However, stuttering can be a source of embarrassment and frustration especially when this is viewed as a handicap. Because of this, people who stutter often avoid particular careers which require public speaking situations. Many researchers believe that stuttering could be a combination of genetic, physical, and psychological factors. We have hypothesized that stuttering is more than just a speech disorder and may be manifested on psycho-emotional and physiological level. We are currently using GDV screening to form the control group and compare the psycho-emotional and physiological state of children who stutter to non-stutters. It is our opinion that GDV testing will identify a biomarker for children who suffer from intense stuttering.

Keywords: Stuttering, Gas Discharge Visualization, biomarker

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