

## **P-275 - EXAMINATION OF BLOOD FLOW PATTERNS IN ADHD THROUGH A CONTINUOUS PERFORMANCE TEST**

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A very important determinant of school performance is attention deficit disorder with or without hyperactivity or impulsivity. The criteria established by the DSM-IV-TR are one of the most widely accepted procedures to diagnose the deficit. There are three different subtypes: inattentive, hyperactive-impulsive and combined. Gonzalez-Castro et al., (2010) demonstrated empirically that the subtypes of ADHD often score significantly different in the prefrontal and central areas of the cortex. This is the reason why it is convenient to carry out more studies in the measure of Q-EEG (electrical activity) combined with that of nir-HEG (blood activity). Rodríguez, et al., (2011) apply both instruments (Q-EEG and nir-HEG) to a sample of 70 students and verify that the nir-HEG differentiates significantly the ADHD subjects of the control group and the combined and inattentive subtype for the Fp1 variable, associated to the executive control. These results might be caused by the time taken to do the evaluation (35 seconds). Therefore, the reason of this research is to assess the instrument over a long period of time while performing a continuous performing task (CPT). The results show statistically significant differences between the control group and the other with ADHD and among the subtypes in the variables of executive control and short evaluation with the nir-HEG. As for the long evaluation of blood oxygenation during a performance of an executive task, some differences can be seen among the subtypes with ADHD, although not statistically significant.