The objective of this study was to compare the data from Amsterdam Neuropsychological Test (ANT) and Emotional Continuous Performance Test (ECPT) between ADHD and normal adults. 57 ADHD (mean age = 37.4; SD = 9.29) and 46 healthy (mean age = 25.6; SD = 7.90) subjects were included in the study. ANT was recorded during 10 tasks, whereby only two tasks were analyzed: Face Recognition (FR) and Identification of Facial Emotions (IFE). The first task consisted of three parts (frontal, profile and upside-down faces) recognizing the unfamiliar faces with varied mapping condition. The second task comprised the recognition of facial expressions: happy, sad, angry and feared faces. ECPT introduced by Meier, Müller & Kropotov, was given as a part of stimuli presentation protocol for evoked potentials and was recorded simultaneously with the 19 channel EEG. The ADHD group made more errors, showed a greater response time and larger variability of reaction time than the control group. Accordingly, this group showed more difficulties of dealing with complexity of face and facial expression recognition. In addition, we can say that the decoding of complex visual information, as the decoding of emotional states, is difficult, since the different feelings also have an influence on the visual decoding and decision-making process.

Keywords: face recognition, identification of facial emotions, ANT, ECPT, ADHD.