P02-158 - **EMOTIONAL RESPONSES IN EXCESSIVE PLAYERS OF VIOLENT VIDEO GAMES - AN FMRI-STUDY**

B.T. te Wildt, S. Rojas, S. Sachs, F. Wedegärtner, G. Szycik

Hanover Medical School, Hannover, Germany

To assess empathic and aversive emotional responses of excessive players of violent video games, both 20 male gamers and 20 controls, age and education matched were examined with functional MRI.

The examinations focused on resting state activity, voxelbased morphometry and the functional scanning of diverse aspects of emotional processing. The actual fMRI-scans were performed under presentation of pictures taken from the IAPS. To put the obtained fMRI-results in a broader context, the participants were examined with psychometrically.

The first-person-shooter players, half of whom fulfilled the criteria of computer game dependency, scored significantly higher ($p \leq .05$) in 4 out of 6 factors of aggressiveness as measured by the FAF. The general aggression scale of the FAF correlates significantly positively ($p \leq .05$; $r=-.515$) with the Perspective Taking Scale of the Interpersonality Reactivity Index (IRI), while a couple of the FAF-Subscales correlate likewise with the Empathic Response Scale.

Within the measurement of resting state activity, differences in the Default Mode-network between players and controls could be shown. The excessive gamers exhibited significant differences within the ACC as compared to controls. This cluster significantly correlates with the FAF-Subscale for self aggression/depression. The calculation of ANOVA design of the functional experiment with picture presentation did not reveal differences in terms of group level. Yet, the analysis of the singular conditions has shown differences in the fusiform gyrus. This may point to unbalanced material for stimulation in terms of visual procession of facial presentations.

The fMRI-results are discussed against the background of the psychometric findings.

https://doi.org/10.1016/S0924-9338(10)70772-0 Published online by Cambridge University Press