

Article: 0204

Topic: FC04 - Free Communications 04: Consultation Liaison Psychiatry and Psychosomatics, Personality and Personality Disorders and Suicidology and Suicide Prevention

Resting – State Functional Connectivity Distortion of Default Mode Network in HIV-associated Neurocognitive Disorder

P. Toro¹, J.I. Reculé¹, P. Diaz², J.M. Allendes², P. Schönknecht³, J. Schröder⁴

¹Department of Psychiatry, Facultad de Medicina. Pontificia Universidad Católica de Chile, Santiago, Chile ;

²Department of Radiology, Facultad de Medicina. Pontificia Universidad Católica de Chile, Santiago, Chile ;

³Psychiatrische Universitätsklinik, University of Leipzig, Leipzig, Germany ; ⁴Sektion for Geriatric Psychiatry, University of Heidelberg, Heidelberg, Germany

Introduction

HIV is currently considered a chronic disease where up to two thirds of patients present HIV-associated Neurocognitive Disorders. Nevertheless, neural correlates of HAND are still poorly understood.

Objectives

To compare the Default Mode Network (DMN) in a sample of HIV individuals with and without HAND.

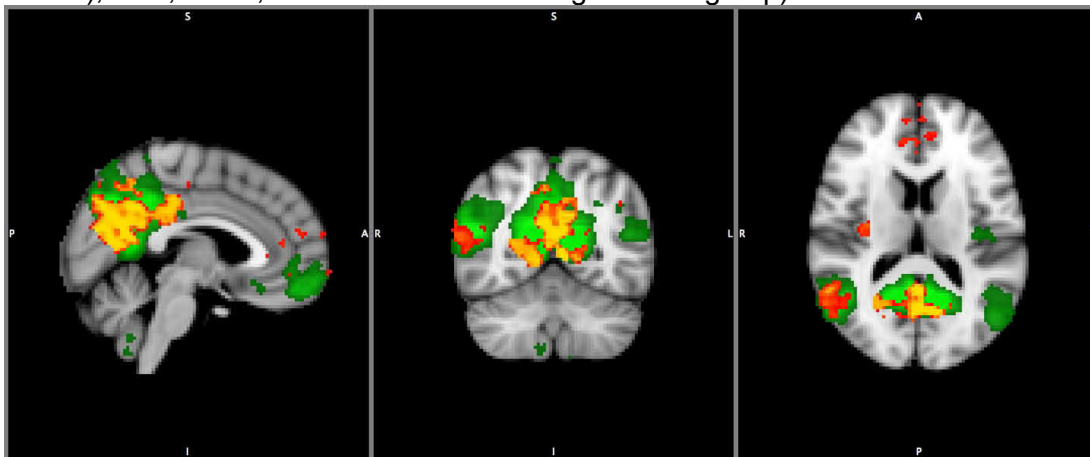
Aims Characterize functional neural correlates of HAND.

Methods

20 HIV+ patients signed informed-consent. HAND was diagnosed using NIMH and NINDS criteria. For each subject, a T2* EPI TR=3s, 120 volumes, 3x3x4mm were obtained in a Philips 1.5T MR; MRI data was preprocessed and Independent Component Analysis (ICA) performed using the FMRIB's Software Library (FSL). Group-ICA was performed on denoised data and DMN regressed using Dual Regression. Non-parametric statistical maps were obtained using Randomize (FSL).

Results

HAND+ group's DMN shows a tendency (corrected) to right hemisphere lateralization when compared against the group (fig. 1: Projected over the MNI-152 reference brain, in green, the DMN of our cohort (z-stat>3); over, in red, the contrast of HAND against the group).



Conclusions

Our results show lateralization of DMN associated to HAND diagnosis; we hypothesize this represents interhemispherical disconnection, concordant with subcortical impairments described in literature. Further enrolling of patients and structural DTI analysis is needed.