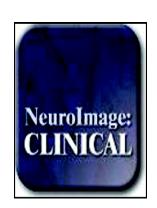
Accepted Manuscript

Magnetic resonance markers of tissue damage related to connectivity disruption in multiple sclerosis

Elisabeth Solana, Eloy Martinez-Heras, Elena H. Martinez-Lapiscina, Maria Sepulveda, Nuria Sola-Valls, Nuria Bargalló, Joan Berenguer, Yolanda Blanco, Magi Andorra, Irene Pulido-Valdeolivas, Irati Zubizarreta, Albert Saiz, Sara Llufriu



PII: S2213-1582(18)30224-9

DOI: doi:10.1016/j.nicl.2018.07.012

Reference: YNICL 1476

To appear in: NeuroImage: Clinical

Received date: 5 December 2017
Revised date: 19 June 2018
Accepted date: 11 July 2018

Please cite this article as: Elisabeth Solana, Eloy Martinez-Heras, Elena H. Martinez-Lapiscina, Maria Sepulveda, Nuria Sola-Valls, Nuria Bargalló, Joan Berenguer, Yolanda Blanco, Magi Andorra, Irene Pulido-Valdeolivas, Irati Zubizarreta, Albert Saiz, Sara Llufriu, Magnetic resonance markers of tissue damage related to connectivity disruption in multiple sclerosis. Ynicl (2018), doi:10.1016/j.nicl.2018.07.012

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Magnetic resonance markers of tissue damage related to connectivity disruption in multiple sclerosis.

Elisabeth Solana^{1,1}, Eloy Martinez-Heras^{1,1}, Elena H. Martinez-Lapiscina¹, Maria Sepulveda¹, Nuria Sola-Valls¹, Nuria Bargalló², Joan Berenguer², Yolanda Blanco¹, Magi Andorra¹, Irene Pulido-Valdeolivas¹, Irati Zubizarreta¹, Albert Saiz¹, Sara Llufriu^{1,*} sllufriu@clinic.ub.es.

¹Center of Neuroimmunology. Laboratory of Advanced Imaging in Neuroimmunological Diseases.

²Magnetic Resonance Image Core Facility. Hospital Clinic Barcelona, Institut d'Investigacions Biomediques August Pi i Sunyer (IDIBAPS) and Universitat de Barcelona. Barcelona, Spain.

*Corresponding author at: Hospital Clinic Barcelona, Calle Villarroel 170. CP 08036. Barcelona, Spain.

ABSTRACT

Patients with multiple sclerosis (MS) display reduced structural connectivity among brain regions, but the pathogenic mechanisms underlying network disruption are still unknown. We aimed to investigate the association between the loss of diffusion-based structural connectivity, measured with graph theory metrics, and magnetic resonance (MR) markers of microstructural damage. Moreover, we evaluated the cognitive consequences of connectivity changes. We analysed the frontoparietal network in 102 MS participants and 25 healthy volunteers (HV). MR measures included radial diffusivity (RD), as marker of demyelination, and ratios of myo-

¹ These authors contributed equally to this work (co-first authors).

Download English Version:

https://daneshyari.com/en/article/8687518

Download Persian Version:

https://daneshyari.com/article/8687518

<u>Daneshyari.com</u>