Accepted Manuscript

Title: Diurnal Stability and Long-Term Repeatability of Neurometabolites Using Single Voxel 1H Magnetic Resonance Spectroscopy

Authors: Oun Al-iedani, Jameen Arm, Karen Ribbons, Rodney Lea, Jeannette Lechner-Scott, Saadallah Ramadan



PII:	S0720-048X(18)30323-1
DOI:	https://doi.org/10.1016/j.ejrad.2018.09.020
Reference:	EURR 8313
To appear in:	European Journal of Radiology
Received date:	30-6-2018
Accepted date:	15-9-2018

Please cite this article as: Al-iedani O, Arm J, Ribbons K, Lea R, Lechner-Scott J, Ramadan S, Diurnal Stability and Long-Term Repeatability of Neurometabolites Using Single Voxel 1H Magnetic Resonance Spectroscopy, *European Journal of Radiology* (2018), https://doi.org/10.1016/j.ejrad.2018.09.020

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

Diurnal Stability and Long-Term Repeatability of Neurometabolites Using Single Voxel 1H Magnetic

Resonance Spectroscopy

Oun Al-iedani^{1,2}, Jameen Arm^{1,2}, Karen Ribbons³, Rodney Lea², Jeannette Lechner-Scott^{2,3,4} and Saadallah

Ramadan*,1,2

¹School of Health Sciences, Faculty of Health and Medicine, University of Newcastle, Callaghan, NSW 2308, Australia.

²Hunter Medical Research Institute, Kookaburra Circuit, New Lambton Heights, NSW 2305, Australia.

³Department of Neurology, John Hunter Hospital, Lookout Road, New Lambton Heights, NSW 2305, Australia.

⁴School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle, Callaghan, NSW 2308, Australia.

* Corresponding author: S Ramadan, School of Health Sciences, Faculty of Health and Medicine, University

of Newcastle, Callaghan, NSW 2308, Australia.

Contact No: +61 2 40420573 Fax: +61 2 40420909

Email: Saadallah.ramadan@newcastle.edu.au

Highlights

- 1H-MRS provides biochemical information that can add specificity to diagnostic and clinical management in a wide range of neurological diseases.
- Understanding reliability and diurnal effects associated with 1H-MRS technique is important to obtain reproducible and longitudinal outcomes.
- 1H-MRS is a reliable tool for the detection of neurometabolites in the brain and has validity in longitudinal studies.

ABSTRACT

Purpose: This study was designed to evaluate the diurnal stability and long-term repeatability and reliability

of one-dimensional (1D) hydrogen magnetic resonance spectroscopy (1H-MRS) in vitro and in vivo at 3T.

Download English Version:

https://daneshyari.com/en/article/11025271

Download Persian Version:

https://daneshyari.com/article/11025271

Daneshyari.com