



Cover image: Brain tree.

Editor

Matthew C Kiernan (Australia)

Deputy Editor

Karen L Furie (USA)

Commissioning Editor

Martin Turner (UK)

Associate Editors

Alan Carson (UK)

Satoshi Kuwabara (Japan)

Nick Ward (UK)

Peter Warnke (USA)

Web Editors

Clare Caldwell

Arun Krishnan

Cindy Lin

Steve Vucic

Editors, Practical Neurology

Geraint Fuller (UK)

Phil Smith (UK)

Editorial Office

Journal of Neurology Neurosurgery & Psychiatry

BMJ Publishing Group Ltd

BMA House

Tavistock Square

London WC1H 9JR, UK

T: +44 (0)20 7383 6909

F: +44 (0)20 7383 6668

E: jnnp@bmj.com

Twitter: @JNNP_BMJ

ISSN: 0022-3050 (print)

ISSN: 1468-330X (online)

Impact factor: 5.58

Disclaimer: *JNNP* is published by BMJ Publishing Group Ltd, a wholly owned subsidiary of the British Medical Association. The BMJ Group grants editorial freedom to the Editor of *JNNP*. *JNNP* follows guidelines on editorial independence produced by the World Association of Medical Editors and the code on good publication practice of the Committee on Publication Ethics.

JNNP is intended for medical professionals and is provided without warranty, express or implied. Statements in the journal are the responsibility of their authors and advertisers and not authors' institutions, the BMJ Publishing Group or the BMA unless otherwise specified or determined by law. Acceptance of advertising does not imply endorsement.

To the fullest extent permitted by law, the BMJ Publishing Group shall not be liable for any loss, injury or damage resulting from the use of *JNNP* or any information in it whether based on contract, tort or otherwise. Readers are advised to verify any information they choose to rely on.

Copyright: © 2015 BMJ Publishing Group. All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without prior permission.

JNNP is published by BMJ Publishing Group Ltd, typeset by Techset, Chennai, India and printed in the UK on acid-free paper from sustainable forests.

Journal of Neurology Neurosurgery & Psychiatry (ISSN No: 0022-3050) is published monthly by BMJ Publishing Group and is distributed in the USA by Air Business Ltd. Periodicals postage paid at Jamaica NY 11431 POSTMASTER: send address changes to *Journal of Neurology Neurosurgery & Psychiatry*, Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA.

Editorial commentaries

591 *Helicobacter pylori* infection might prove the hygiene hypothesis in multiple sclerosis
Jun-ichi Kira

593 Driving safely with dementia
C Warlow

Cognitive neurology

595 The neural correlates of road sign knowledge and route learning in semantic dementia and Alzheimer's disease
S Luzzi, V Cafazzo, A Damora, K Fabi, F M Fringuelli, G Ascoli, M Silvestrini, L Provinciali, C Reverberi

Multiple sclerosis

603 *Helicobacter pylori* infection as a protective factor against multiple sclerosis risk in females
M J F Pedrini, A Seewann, K A Bennett, A J T Wood, I James, J Burton, B J Marshall, W M Carroll, A G Kermod

608 Spinal cord grey matter abnormalities are associated with secondary progression and physical disability in multiple sclerosis
H Kearney, T Schneider, M C Yiannakas, D R Altmann, C A M Wheeler-Kingshott, O Ciccarelli, D H Miller

615 The natural history of early versus late disability accumulation in primary progressive MS
M W Koch, J Greenfield, O Javizian, S Deighton, W Wall, L M Metz

622 Neuropsychological changes following deep brain stimulation surgery for Parkinson's disease: comparisons of treatment at pallidal and subthalamic targets versus best medical therapy
J C Rothlind, M K York, K Carlson, P Luo, W J Marks Jr, F M Weaver, M Stern, K Follett, D Reda, for the CSP-468 Study Group

Neuromuscular

630 SANDO syndrome in a cohort of 107 patients with CPEO and mitochondrial DNA deletions
F Hanisch, M Kornhuber, C L Alston, R W Taylor, M Deschauer, S Zierz

635 Defining disability: development and validation of a mobility-Disability Severity Index (mDSI) in Charcot-Marie-tooth disease
S Ramchandren, M Shy, E Feldman, R Carlos, C Siskind

640 Sensory axonal dysfunction in cervical radiculopathy
J-Y Sung, J Tani, K-S Hung, T-N Lui, C S-Y Lin

646 A diagnostic flow chart for *POLG*-related diseases based on signs sensitivity and specificity
M Tchikviladze, M Gilleron, T Maisonobe, D Galanaud, P Laforêt, A Durr, B Eymard, F Mochel, H Ogier, A Béhin, T Stojkovic, B Degos, I Gourfinkel-An, F Sedel, M Anheim, A Elbaz, K Viala, M Vidailhet, A Brice, C Jardel, A Lombès

Neurodegeneration

655 CSF lactate levels, τ proteins, cognitive decline: a dynamic relationship in Alzheimer's disease
C Liguori, A Stefani, G Sancesario, G M Sancesario, M G Marciani, M Pierantozzi

660 A study of up to 12 years of follow-up of Friedreich ataxia utilising four measurement tools
G Tai, L A Corben, L Gurrin, E M Yiu, A Churchyard, M Fahey, B Hoare, S Downie, M B Delatycki

667 The expanding syndrome of amyotrophic lateral sclerosis: a clinical and molecular odyssey
M R Turner, M Swash



MORE CONTENTS ►



This article has been chosen by the Editor to be of special interest or importance and is freely available online.



This article has been chosen in conjunction with the BMJ Patient Forum to be of particular interest to patients and is freely available online.



This article has been made freely available online under the BMJ Journals Open Access scheme. See <http://jnnp.bmj.com/site/about/guidelines.xhtml#open>



The article is part of the Impact Commentaries series



This journal is a member of and subscribes to the principles of the Committee on Publication Ethics
<http://publicationethics.org/>



Movement disorders

- 674** Low-frequency versus high-frequency stimulation of the pedunculopontine nucleus area in Parkinson's disease: a randomised controlled trial

D Nosko, M U Ferraye, V Fraix, L Goetz, S Chahardès, P Pollak, B Debû

Cognition

- 680** The use and misuse of short cognitive tests in the diagnosis of dementia

J Brown

Neuro-inflammation

- 686** Effective treatment with intravenous immunoglobulins reduces autoreactive T-cell response in patients with CIDP

J Klehmet, J Goehler, L Ulm, S Kohler, C Meisel, A Meisel, H Harms

- 692** Neuronal antibodies in patients with suspected or confirmed sporadic Creutzfeldt-Jakob disease



OPEN ACCESS

M Rossi, S Mead, J Collinge, P Rudge, A Vincent

- 695** Serum high mobility group box 1 is upregulated in myasthenia gravis

A Uzawa, N Kawaguchi, T Kanai, K Himuro, S Kuwabara

Neurological picture

- 698** Mixed pial-dural fistula development after ventricular shunting

Y Loh, D Newell

PostScript

- 700** Letters

Receive regular table of contents by email.

Register using this QR code.

