



Cover image: Brain tree.

Editor

Matthew C Kiernan (Australia)

Deputy Editors

Karen L Furie (USA)
Satoshi Kuwabara (Japan)
Lawrence Wong (China)

Associate Editors

Alan Carson (UK)
Nick Ward (UK)
Peter Warnke (USA)

Commissioning Editor

Martin Turner (UK)

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: 6.431

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: © 2018 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 Nova Techset Private Limited, Bengaluru & 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

- 1 Atrial fibrillation and FLAIR/T2 white matter hyperintensities on MRI
M E Gurol
- 3 Diet and disease modification in multiple sclerosis: a nutritional epidemiology perspective
K Fitzgerald
- 4 Non-invasive in vivo neuropathology of the *C9orf72*-related ALS-FTD syndrome
M R Turner

Cerebrovascular disease

- 6 Atrial fibrillation is associated with anterior predominant white matter lesions in patients presenting with embolic stroke
Y Mayasi, J Helenius, D D McManus, R P Goddeau Jr, A H Jun-O'Connell, M Moonis, N Henninger
- 14 Controversy of posterior reversible encephalopathy syndrome: what have we learnt in the last 20 years?
B Gao, C Lyu, A Lerner, A M McKinney
- 21 Effects of pioglitazone on cognitive function in patients with a recent ischaemic stroke or TIA: a report from the IRIS trial
K L Furie, C M Viscoli, M Gorman, G A Ford, L H Young, S E Inzucchi, P D Guarino, A M Lovejoy, R Conwit, D Tanne, W N Kernan

Multiple sclerosis

- 28 Contribution of dietary intake to relapse rate in early paediatric multiple sclerosis
S Azary, T Schreiner, J Graves, A Waldman, A Belman, B W Guttman, G Aaen, J-M Tillema, S Mar, J Hart, J Ness, Y Harris, L Krupp, M Gorman, L Benson, M Rodriguez, T Chitnis, J Rose, L F Barcellos, T Lotze, S L Carmichael, S Roalstad, C T Casper, E Waubant
- 34 Complementary and alternative treatments of multiple sclerosis: a review of the evidence from 2001 to 2016
S B Clafin, I A F van der Mei, B V Taylor
- 42 Vascular pathology in multiple sclerosis: reframing pathogenesis around the blood-brain barrier
J I Spencer, J S Bell, G C DeLuca

Neurodegeneration

- 53 Longitudinal diffusion imaging across the *C9orf72* clinical spectrum
M K Floeter, L E Danielian, L E Braun, T Wu

Neuromuscular

- 61 Nodes, paranodes and neuropathies
J Fehmi, S S Scherer, H J Willison, S Rinaldi
- 72 MRI in sarcoglycanopathies: a large international cohort study
G Tasca, M Monforte, J Díaz-Manera, G Brisca, C Semplicini, A D'Amico, F Fattori, A Pichiecchio, A Berardinelli, L Maggi, E Maccagnano, N Løkken, C Marini-Bettolo, F Munell, A Sanchez, N Alshaikh, N C Voermans, J Dasgiri, D Vlodavets, J Haberlová, G Magnano, M C Walter, S Quijano-Roy, R-Y Carlier, B G M van Engelen, J Vissing, V Straub, C G Bönnemann, E Mercuri, F Muntoni, E Pegoraro, E Bertini, B Udd, E Ricci, C Bruno

Movement disorders

- 78 Baseline prevalence and longitudinal evolution of non-motor symptoms in early Parkinson's disease: the PPMI cohort
T Simuni, C Caspell-García, C S Coffey, D Weintraub, B Mollenhauer, S Lasch, C M Tanner, D Jennings, K Kiebertz, L M Chahine, K Marek
- 89 Serotonin transporter binding and anxiety symptoms in Parkinson's disease
M Joling, O A van den Heuvel, H W Berendse, J Booij, C Vriend

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/>



Sleep disorders

- 95** Sleep patterns in Parkinson's disease: direct recordings from the subthalamic nucleus
J A Thompson, A Tekriwal, G Felsen, M Ozturk, I Telkes, J Wu, N F Ince, A Abosch

General neurology

- 105** Quantitative MR spectroscopic imaging in metachromatic leukodystrophy: value for prognosis and treatment
D F van Rappard, A Klauser, M E Steenweg, J J Boelens, M Bugjani, M S van der Knaap, N I Wolf, P J W Pouwels

Cognition

- 112** Corticostriatal signatures of schadenfreude: evidence from Huntington's disease
S Baez, M Pino, M Berrío, H Santamaría-García, L Sedeño, A M García, S Fittipaldi, A Ibáñez