



**Cover image:** Five month old with dural arteriovenous fistula to the superior sagittal sinus. From Walcon *et al.*, page 6.

#### Editor

Robert W Tarr (USA)

#### Associate Editors

Felipe Albuquerque (USA)

David Fiorella (USA)

Joshua Hirsch (USA)

Charles Prestigiacomo (USA)

Osama Zaidat (USA)

#### Assistant Editor, Point-Counterpoint Section

Kristine Blackham (USA)

#### Assistant Editor, Book Review Section

Albert Yoo (USA)

#### SNIS Executive Director

Marie Williams, CAE

#### Editorial Office

Journal of NeuroInterventional Surgery BMJ

Publishing Group Ltd

BMA House

Tavistock Square

London, WC1H 9JR, UK

T: +44 (0)20 7383 6170

F: +44 (0)20 7383 6668

E: [info.jnis@bmjgroup.com](mailto:info.jnis@bmjgroup.com)

#### Guidelines for authors and reviewers

Full instructions are available online at <http://JNIS.bmj.com/fora>. Articles must be submitted electronically <http://submit-JNIS.bmj.com>. Authors retain copyright but are required to grant JNIS an exclusive licence to publish <http://JNIS.bmj.com/fora/licence.dtl>

ISSN: 1759-8478 (print)

ISSN: 1759-8486 (online)

**Disclaimer:** While every effort is made by the publishers and editorial board to see that no inaccurate or misleading data, opinions, or statements appear in this Journal, they wish to make it clear that the data and opinions appearing in the articles and advertisements herein are the responsibility of the contributor or advertiser concerned.

Accordingly, the publishers and the Society of NeuroInterventional Surgery, the editorial committee and their respective employees, officers and agents, accept no liability whatsoever for the consequences of any such inaccurate or misleading data, opinion or statement. While every effort is made to ensure that drug doses and other quantities are presented accurately, readers are advised that new methods and techniques involving drug usage, described within this Journal, should only be followed in conjunction with the drug manufacturer's own published literature.

**Copyright:** © 2013 Society of NeuroInterventional Surgery. 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.

Journal of NeuroInterventional Surgery is published by BMJ Publishing Group Ltd, typeset by Techset, India and printed in the UK.

Journal of NeuroInterventional Surgery (ISSN 1759-8478) is published bimonthly 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 NeuroInterventional Surgery, Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA.

### Editorial

- 1 Nothing changes on New Year's day  
*R W Tarr*

### Standards

- 3 Standard of practice: embolization of spinal arteriovenous fistulae, spinal arteriovenous malformations, and tumors of the spinal axis  
*S Narayanan, R W Hurst, T A Abruzzo, F C Albuquerque, K A Blackham, K R Bulsara, C P Derdeyn, C D Gandhi, J A Hirsch, D P Hsu, M S Hussain, M V Jayaraman, P M Meyers, A Patsalides, C J Prestigiacomo*

### Hemorrhagic stroke

- 6 Dural arteriovenous fistulae in pediatric patients: associated conditions and treatment outcomes  
*B P Walcott, E R Smith, R M Scott, D B Orbach*
- 10 Pial arteriovenous fistulae in pediatric patients: associated syndromes and treatment outcome  
*B P Walcott, E R Smith, R M Scott, D B Orbach*
- 15 Stent assisted coil embolization of unruptured middle cerebral artery aneurysms  
*J D Fields, L Brambrink, A Dogan, E K Helseth, K C Liu, D S Lee, G M Nesbit, B D Petersen, S L Barnwell*

- 20 A checklist for cerebral aneurysm embolization complications  
*M Chen*
- 28 Current endovascular treatment options of dural venous sinus thrombosis: a review of the literature  
*N B Gala, N Agarwal, J Barrese, C D Gandhi, C J Prestigiacomo*

### Ischemic stroke

- 35 Factors associated with rapid neurological improvement 24 h following intra-arterial thrombolytic treatment for acute ischemic stroke  
*G Christoforidis, Y M Mohammad, M Khadir, M Yang, A P Slivka*
- 40 Safety and effectiveness of emergency carotid artery stenting for a high-grade carotid stenosis with intraluminal thrombus under proximal flow control in hyperacute and acute stroke  
*T Iwata, T Mori, H Tajiri, Y Miyazaki, M Nakazaki*

### New devices

- 45 Estimating the proportion of intracranial aneurysms likely to be amenable to treatment with the pipeline embolization device  
*W Brinjikji, H J Cloft, D Fiorella, G Lanzino, D F Kallmes*
- 49 Mechanical thrombectomy as first-line treatment for venous sinus thrombosis: technical considerations and preliminary results using the AngioJet device  
*S R Dashti, Y C Hu, T Yao, D Fiorella, A P Mitha, F C Albuquerque, C G McDougall*
- 54 Complex shaped detachable platinum coil system for the treatment of cerebral aneurysms: The Codman TruFill DCS and TruFill DCS Orbit Detachable Coil System COMPLEX Registry final results  
*B R Bendok, R J Rahme, for the Complex Registry Group*

### Clinical neurology

- 62 Dural venous sinus angioplasty and stenting for the treatment of idiopathic intracranial hypertension  
*J D Fields, P P Javedani, J Falardeau, G M Nesbit, A Dogan, E K Helseth, K C Liu, S L Barnwell, B D Petersen*



EDITOR'S CHOICE

### Neuroimaging

- 69 Frameless multimodal image guidance of localized convection-enhanced delivery of therapeutics in the brain  
*I M J van der Bom, R P Moser, G Gao, M Sena-Esteves, N Aronin, M J Gounis*



MORE CONTENTS ►



EDITOR'S CHOICE

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



This article has been made freely available online under the BMJ Journals Open Access scheme.

See <http://JNIS.bmj.com/site/about/guidelines.xhtml#open>

COPE

COMMITTEE ON PUBLICATION ETHICS

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics

[www.publicationethics.org.uk](http://www.publicationethics.org.uk)

equator  
network

recycle  
When you have finished with this please recycle it

Receive regular table of contents by email.  
Register using this QR code.



- 73** Initial experience with a combined multidetector CT and biplane digital subtraction angiography suite with a single interactive table for the diagnosis and treatment of neurovascular disease  
*J J Gemmete, N Chaudhary, A S Pandey, Y Oweis, B G Thompson, C O Maher, D Gandhi, S A Ansari*

---

### Head and neck

- 81** Cyberknife radiosurgery in treating trigeminal neuralgia  
*B M Lazzara, O Ortiz, R Bordia, M R Witten, J A Haas, A J Katz, J A Brown*



---

### Socioeconomics

- 86** Ready or not! Here comes ICD-10  
*L Manchikanti, F J E Falco, J A Hirsch*

---

### PostScript

- 92** Book review