



Cover caption: Three-dimensional geometrical model of cerebral venous anatomy from the manuscript by Pereira V et al.

**Editor-in-Chief**

Felipe C. Albuquerque

**Deputy Editors**

David Fiorella

Joshua Hirsch

**Commissioning Editor**

Michael Chen

**Associate Editors**

Franziska Dorn

Kyle Fargen

Jens Fiehler

Urs Fischer

William Mack

James Milburn

J Mocco

Gabor Toth

Isil Saatci

Philip White

**Associate Editors, Basic Science**

Matthew Gounis

David Steinman

**Assistant Editors, Social Media**

Dorothea Altschul

Reade DeLeacy

Andrew Ducruet

Michael Levitt

**Assistant Editors, Technical Videos**

Peter Kan

Maxim Mokin

**Fellows of JNIS**

Jose Danilo Diestro

Adrien Guenego

Lila Sheikhi

**Editor Emeritus**

Robert Tarr

**SNIS Executive Director**

Marie Williams

**Editorial Office**

Journal of NeuroInterventional Surgery BMJ

Publishing Group Ltd

BMA House

Tavistock Square

London, WC1H 9JR, UK

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

**Guidelines for authors and reviewers**

Full instructions are available online at <http://JNIS.bmj.com/fora>. Articles must be submitted electronically <http://mc.manuscriptcentral.com/jnis>. 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)

Twitter: @JNIS\_BMJ

**Disclaimer:** The Editor of *Journal of NeuroInterventional Surgery* has been granted editorial freedom and *Journal of NeuroInterventional Surgery* is published in accordance with editorial guidelines issued by the World Association of Medical Editors and the Committee on Publication Ethics. *Journal of NeuroInterventional Surgery* is primarily intended for healthcare professionals and its content is for information only. The Journal is published without any guarantee as to its accuracy or completeness and any representations or warranties are expressly excluded to the fullest extent permitted by law. Readers are advised to independently verify any information on which they choose to rely. Acceptance of advertising by *Journal of NeuroInterventional Surgery* does not imply endorsement. Neither SNIS nor BMJ Publishing Group Limited shall have any liability for any loss, injury or damage howsoever arising from *Journal of NeuroInterventional Surgery* (except for liability which cannot be legally excluded).

**Copyright:** © 2021 Society of NeuroInterventional Surgery. All rights reserved; no part of this publication may be reproduced in any form without permission. *Journal of NeuroInterventional Surgery*, ISSN 1759-8478, BMA House, Tavistock Square, London WC1H 9JR, UK. The US annual subscription price is \$272. Airfreight and mailing in the USA by agent named World Container Inc, 150-15, 183rd Street, Jamaica, NY 11413, USA. Periodicals postage paid at Brooklyn, NY 11256.

US Postmaster: Send address changes to *Journal of NeuroInterventional Surgery*, World Container Inc, 150-15, 183rd Street, Jamaica, NY 11413, USA. Subscription records are maintained at: BMJ, 12th Floor, Southgate House, Wood Street, Cardiff CF10 1GH, UK. Air Business Ltd is acting as our mailing agent.

**Editor's column**

**681** From a female perspective  
*D Altschul*

**Commentaries**

**683** Spine 2.0 JNIS style  
*J A Hirsch, R V Chandra, A Cianfoni, R De Leacy, S Marcia, L Manfre, R W Regenhardt, J M Milburn*

**685** Polymer degradation rates and persisting brain lesions post endovascular procedures  
*A M Chopra, J P Cruz, Y C Hu, S A Ansari, T Kitamura*

**Ischemic stroke**

**687** Radial first or patient first: a case series and meta-analysis of transradial versus transfemoral access for acute ischemic stroke intervention  
*A H Siddiqui, M Waqas, J Neumaier, J F Zhang, R H Dossani, J M Cappuzzo, R J Van Coevering III, H H Rai, A Monteiro, A Sonig, J M Davies, K V Snyder, E I Levy*

**693** Impact of off-hour endovascular therapy on outcomes for acute ischemic stroke: insights from STAR  
*C Tschoe, C Kittel, P Brown, M Hafeez, P Kan, A Alawieh, A M Spiotta, E Almallouhi, T M Dumont, D J McCarthy, R M Starke, R De Leacy, S Q Wolfe, K M Fargen*

**Vascular neurology**

**698** Blood pressure reduction and outcome after endovascular therapy: a secondary analysis of the BEST study  
*M Anadani, A de Havenon, S Yaghi, T Mehta, N Arora, A K Starosciak, F De Los Rios La Rosa, J Siegler, A M Mistry, R Chitale, A M Spiotta, G Tsvigoulis, P Khatri, E A Mistry*

**703** Quality of life among ischemic stroke patients eligible for endovascular treatment: analysis of the DEFUSE 3 trial  
*G Asaihambi, M E Tjipps*

**Hemorrhagic stroke**

**707** Risk of intracranial hemorrhage associated with pregnancy in women with cerebral arteriovenous malformations  
*S Lee, Y Kim, B B Navi, R Abdelhaleq, S Salazar-Marioni, S L Blackburn, A B Bambhroliya, V Lopez-Rivera, F Vahidy, S I Savitz, A Medhus, H Kamel, J C Grotta, L McCullough, P R Chen, S A Sheth*

**711** Transcirculation approach for stent-assisted coiling of intracranial aneurysms: a multicenter study  
*J R Mascitelli, M R Levitt, C J Griessenauer, L J Kim, B Gross, A Abba, E Winkler, B Jankowitz, R Grandhi, O Goren, C M Schirmer*

**716** Abdominal aortic aneurysm is associated with subarachnoid hemorrhage  
*D A Wilkinson, B J Daou, J L Nadel, N Chaudhary, J J Gemmete, B G Thompson, A S Pandey*

**New devices and techniques**

**722** The novel Tenzing 7 delivery catheter designed to deliver intermediate catheters to the face of embolus without crossing: clinical performance predicted in anatomically challenging model  
*A M Frölich, W Kim, K Strimby, O Jansen, M Möhlenbruch, I Szikora, F Wodarg, J Fiehler, K Otto, T Chou, J H Buhk, J English*

**Basic science**

**727** Endothelialized silicone aneurysm models for in vitro evaluation of flow diverters  
*A McCulloch, A Turcott, G Graham, S Frenkelakh, K O'H Cardinal*

**732** Torrents of torment: turbulence as a mechanism of pulsatile tinnitus secondary to venous stenosis revealed by high-fidelity computational fluid dynamics  
*V M Pereira, N M Cancelliere, M Najafi, D MacDonald, T Natarajan, I Radovanovic, T Krings, J Rutka, P Nicholson, D A Steinman*

**738** Characterization of thrombus composition with multimodality CT-based imaging: an in-vitro study  
*Y-H Ding, M Abbasi, G Michalak, S Leng, D Dai, S Fitzgerald, R Kadivel, D F Kallmes, W Brinjikji*

**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 made freely available online under the BMJ Journals open access scheme. See <http://authors.bmj.com/open-access/>



Member since 2009  
This journal is a member of and subscribes to the principles of the Committee on Publication Ethics <http://publicationethics.org/>



When you have finished with this please recycle it

- 741** Influence of simultaneous pressor and vasodilatory agents on the evolution of infarct growth in experimental acute middle cerebral artery occlusion  
*N Saadat, G A Christoforidis, Y I Jeong, M Liu, A Dimov, S Roth, M Niekerasz, S A Ansari, T Carroll*

- 746** Cellular responses to flow diverters in a tissue-engineered aneurysm model  
*W Liu, D Dai, Y-H Ding, Y Liu, K Temnyk, T W Shen, K OH Cardinal, D F Kallmes, R Kadirvel*

---

## Socioeconomics

- 752** Propensity-adjusted cost analysis of radial versus femoral access for neuroendovascular procedures  
*J S Catapano, A F Ducruet, S W Koester, T S Cole, J F Baranoski, C Rutledge, N Majmundar, V M Srinivasan, D A Wilkinson, M T Lawton, F C Albuquerque*

---

## Neuroimaging

- 755** Performance of Radiomics derived morphological features for prediction of aneurysm rupture status  
*C G Ludwig, A Lauric, J A Malek, R Mulligan, A M Malek*

---

## Standards

- 762** Pediatric diagnostic cerebral angiography: practice recommendations from the SNIS Pediatric Committee  
*N Chaudhary, L Elijovich, M Martinez, J T Fifi, S Ortega-Gutiérrez, A Shaibani, A S Pandey, S Suzuki, R R Field, J J Gemmete, D L Cooke, S Narayanan, S W Hetts, D B Orbach, M S Pearl*

---

## Technical video

- 768** MeVO SAVE technique: initial experience with the 167 cm long NeuroSlider 17 for a combined approach in medium vessel occlusions (MeVOs)  
*C Pérez-García, S Rosati, C Gómez-Escalonilla, A López-Frías, J Arrazola, M Moreu*




---

## Electronic pages

- e15** Letter regarding article 'Abdominal aortic aneurysm is associated with subarachnoid hemorrhage'  
*Y Wu, T Liu, X Jiang, X Yu*
- e16** Letter regarding 'Radial first or patient first : a case series and meta-analysis of transradial (TRA) versus transfemoral (TFA) access for acute ischemic stroke intervention'  
*F G Sheriff, G J Rodriguez, V Gupta, A Maud*