



Cover caption: Glass phantom reconstruction demonstrating device-thrombus interaction from the manuscript by Liu Y *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 Sheikh

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

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.pdf>

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 11266.

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.

Contents

Volume 13 Issue 9 | JNIS September 2021

Editor's column

- 769** Lies, damned lies, and TICl
M Mokin, J A Hirsch, D Fiorella, A P Jadhav

Commentary

- 771** Lesion characteristics and biopsy techniques influencing diagnostic yield of CT-guided spine biopsy
S P Daniels, J L Chazen

Ischemic stroke

- 773** Balloon guide catheter improvements in thrombectomy outcomes persist despite advances in intracranial aspiration technology
J Blasco, J Puig, P Daunis-i-Estadella, E González, J J Fondevila Monso, X Manso, R Oteros, E Jimenez-Gomez, I Bravo Rey, P Vega, E Murias, J M Jimenez, A López-Rueda, A Renú, S Aixut, O Chirifé Chaparro, S Rosati, M Moreu, S Remollo, Y Aguilar Tejedor, M Terceño, A Mosqueira, R G Nogueira, L San Roman

- 779** Benefit of endovascular thrombectomy for M2 middle cerebral artery occlusion in the ARISE II study
A de Havenon, A P Narata, A Amelot, J L Saver, H Bozorgchami, H P Matile, M Ribo, T Andersson, O O Zaidat, On behalf of ARISE II investigators

- 784** Cost-effectiveness of endovascular thrombectomy in patients with acute stroke and M2 occlusion
M Khume, X Wu, S Payabvash, C Zhu, C Matouk, J Schindler, P Sanelli, D Gandhi, A Malhotra

- 790** Effect of age and baseline ASPECTS on outcomes in large-vessel occlusion stroke: results from the HERMES collaboration
J M Ospel, M Kappelhof, N Kashani, B K Menon, B C V Campbell, L San Roman, A M Demchuk, D W J Dippel, J L Saver, T G Jovin, P Mitchell, S Bracard, K Muir, P White, F Guillemin, C B L M Majoie, M D Hill, S Brown, M Goyal, On behalf of the HERMES collaborators

- 794** Endovascular therapy for acute stroke in children: age and size technical limitations
L R Sun, D Harrar, G Drocton, C Castillo-Pinto, P Gailloud, M S Pearl

- 799** In-thrombus thrombin secretion: a new diagnostic marker of atrial fibrillation in cryptogenic stroke
Ze've Itsekson Hayosh, E Abu Bandora, N Shelestovich, M Nulman, M Bakon, G Yaniv, B Khaitovitch, S Balan, A Gerasimova, T Drori, S Mausbach, Y Schwammenthal, A Afeke, J Chapman, E Shavit Stein, D Orion

- 805** Prediction of death after endovascular thrombectomy in the extended window: a secondary analysis of DEFUSE 3 "
P Tauskey, G Agnoletto, R Grandhi, M D Alexander, K-H Wong, G W Albers, A de Havenon
- 809** Rescue carotid puncture for ischemic stroke treated by endovascular therapy: a multicentric analysis and systematic review
J Allard, S Ghazanfari, M Mahmoudi, J Labreuche, S Escalard, F Delvoye, G Ciccio, S Smajda, H Redjem, S Hebert, A Consoli, V Costalat, J-P Desilles, M Mazighi, M Pötin, C Dargazanli, B Lapergue, R Blanc, B Maïer
- 816** Preclinical testing platforms for mechanical thrombectomy in stroke: a review on phantoms, in-vivo animal, and cadaveric models
Y Liu, M Abbasi, J L Arturo Larco, R Kadirvel, D F Kallmes, W Brinjikji, L Savastano
- 823** Efficacy of beveled tip aspiration catheter in mechanical thrombectomy for acute ischemic stroke
J Vargas, J Blalock, A Venkatraman, V Anagnostakou, R M King, J A Ewing, M J Gounis, R D Turner, I Chaudry, A Turk
- 827** Drug-coated balloon for vertebral artery origin stenosis: a pilot study
Y Wang, Y Feng, T Wang, Y Ma, P Gao, J Chen, Y Chen, B Yang, L Jiao

Hemorrhagic stroke

- 831** Effect of bodyweight on VerifyNow Aspirin platelet function test: a retrospective review
M Sandler, C Hoang, H Y Mak, M R Levitt
- 835** Prophylactic administration of tirofiban for preventing thromboembolic events in flow diversion treatment of intracranial aneurysms
Q Wu, Q Shao, L Li, X Liang, K Chang, T Li, Y He

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
JMO4666

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



Spine

- 841** Diagnostic yield, accuracy, and complication rate of CT-guided biopsy for spinal lesions: a systematic review and meta-analysis
G D Michalopoulos, Y U Yolcu, A K Ghaith, M A Alvi, C M Carr, M Bydon
- 848** Treating traumatic thoracolumbar spine fractures using minimally invasive percutaneous stabilization plus balloon kyphoplasty: a 102-patient series
H Salle, A Meynard, E Auditeau, C Gantois, A Rouchaud, C Mounayer, P Faure, F Caire

Neuroimaging

- 854** Irregular pulsation of intracranial unruptured aneurysm detected by four-dimensional CT angiography is associated with increased estimated rupture risk and conventional risk factors
J Zhang, X Li, B Zhao, J Zhang, B Sun, L Wang, S Ding, X Liu, J Yan, M Mossa-Basha, X Liu, J Wan, H Zhao, J Xu, C Zhu

Technical video

- 860** Retrieval of distally migrated coil using stent retriever and proximal aspiration
A Mendez-Ruiz, A A Mendez, C B Zevallos, D Quispe Orozco, M Farooqui, E A Samaniego, S Dandapat, S Ortega-Gutierrez

Electronic pages

- e17** Republished: Successful treatment of ruptured multiple fusiform middle cerebral artery aneurysms with silk vista baby flow diverter in a 10-months-old infant
G Barchetti, L Di Clemente, M Mazzetto, M Zanusso, P Ferrarese, G Iannucci
- e18** Action mechanism of the beveled tip aspiration catheter
Y Liu, D F Kallmes
- e19** Commentary about a 20th meta-analysis
E Houdart
- e20** Letter regarding 'Neurointervention for emergent large vessel occlusion strokes during the COVID-19 pandemic'
A Hamidianjahromi, A Mowla
- e21** Correction: *The impact of general anesthesia, baseline ASPECTS, time to treatment, and IV tPA on intracranial hemorrhage after neurothrombectomy: pooled analysis of the SWIFT PRIME, SWIFT, and STAR trials*