Are your MRI contrast agents cost-effective? Learn more about generic Gadolinium-Based Contrast Agents.





Reply:

D. Byrne, J.P. Walsh and P.J. MacMahon

AJNR Am J Neuroradiol 2018, 39 (4) E48 doi: https://doi.org/10.3174/ajnr.A5536 http://www.ajnr.org/content/39/4/E48

This information is current as of April 20, 2024.

REPLY:

Te thank Drs Singh, Zerna, and Menon for their interest in our study, 1 and we are grateful for the opportunity to address their comments. First, we would like to acknowledge the utility and value of multiphase CT angiography as a development in the assessment of acute stroke, first described by the Calgary Stroke Program. It is a dynamic, versatile, and multipurpose tool,² with benefit in the detection of distal intracranial arterial occlusions as previously described by Yu et al.³ The purpose of our study was to demonstrate the effectiveness of an easily communicated imaging sign on multiphase CTA, "the delayed vessel sign," which we have found to be intuitively understood even by junior trainees. It is a reliable indicator of an intracranial arterial occlusion, providing a rapid method to identify the precise site of occlusion. The sign is distinct from "asymmetric pial enhancement," which we separately evaluated in our article; in clinical practice, we have found it to be a subtler imaging feature, especially when associated with distal vessel occlusions. We have recently developed a new postprocessing technique "subtraction multiphase CT angiography," which increases the conspicuity of the delayed vessel sign by suppressing normally enhancing vessels

http://dx.doi.org/10.3174/ajnr.A5536

(including pial vessels), enabling faster detection of intracranial arterial occlusions.⁴

REFERENCES

- Byrne D, Sugrue G, Stanley E, et al. Improved detection of anterior circulation occlusions: the "delayed vessel sign" on multiphase CT angiography. AJNR Am J Neuroradiol 2017;38:1911–16 CrossRef Medline
- Menon BK, d'Esterre CD, Qazi EM, et al. Multiphase CT angiography: a new tool for the imaging triage of patients with acute ischemic stroke. Radiology 2015;275:510–20 CrossRef Medline
- Yu AY, Zerna C, Assis Z, et al. Multiphase CT angiography increases detection of anterior circulation intracranial occlusion. Neurology 2016;87:609–16 CrossRef Medline
- Byrne D, Walsh JP, Sugrue G, et al. Subtraction multiphase CT angiography: a new technique for faster detection of intracranial arterial occlusions. Eur Radiol 2017 Nov 13. [Epub ahead of print] CrossRef Medline

D. Byrne
D.P. Walsh
Department of Radiology
Mater Misericordiae University Hospital
Dublin, Ireland
P.J. MacMahon
Department of Radiology
Mater Misericordiae University Hospital
Dublin, Ireland
School of Medicine
University College Dublin
Dublin, Ireland