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of August 28, 2025.

Reply:

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AJNR Am J Neuroradiol 2022, 43 (3) E4

doi: <https://doi.org/10.3174/ajnr.A7454>

<http://www.ajnr.org/content/43/3/E4>

REPLY:

We thank Dr Quintas-Neves for showing interest in our work and providing an inspiring new perspective for advanced imaging in the management of the recalcitrant problem of vasospasm and delayed ischemia after SAH. CT perfusion studies do seem capable of identifying patients at risk of delayed ischemia. The idea makes sense, just as conventional angiography and transcranial Doppler did 50 and 30 years ago.

Our field has had a remarkable propensity to provide diagnostic tests to address important clinical problems. In turn, clinicians have had a propensity to adopt them immediately. However, few clinicians have been willing to check whether test results are reproducible^{1,2} or even accurate.³ Even fewer clinicians are willing to examine whether our tests, when integrated into practice, actually contribute to improved patient outcomes in reality. It is one thing to show that a test has prognostic significance; it is much harder to show that physicians acting on test results actually benefits patients.^{4,5}

We would enthusiastically support and participate in a well-designed, randomized trial that would examine the role of CT perfusion in preventing delayed ischemia in patients with SAH.

REFERENCES

1. Letourneau-Guillon L, Farzin B, Darsaut TE, et al. **Reliability of CT angiography in cerebral vasospasm: a systematic review of the literature and an inter- and intraobserver study.** *AJNR Am J Neuroradiol* 2020;41:612–18 [CrossRef Medline](#)
2. Darsaut TE, Derksen C, Farzin B, et al. **Reliability of the diagnosis of cerebral vasospasm using catheter cerebral angiography: a systematic review and inter- and intraobserver study.** *AJNR Am J Neuroradiol* 2021;42:501–07 [CrossRef Medline](#)
3. Darsaut TE, Keough MB, Chan AM, et al. **Transcranial Doppler velocities and angiographic vasospasm after SAH: a diagnostic accuracy study.** *AJNR Am J Neuroradiol* 2022;43:80–86 [CrossRef Medline](#)
4. Raymond J, Létourneau-Guillon L, Darsaut TE. **The role of research in my clinical practice.** *Neurochirurgie* 2021 Sep 30. [Epub ahead of print] [CrossRef Medline](#)
5. Raymond J, Létourneau-Guillon L, Darsaut TE. **Angiographic vasospasm and delayed cerebral ischemia after subarachnoid hemorrhage: moving from theoretical to practical research pertinent to neurosurgical care.** *Neuro-Chirurgie* 2021 Nov 26. [Epub ahead of print] [CrossRef Medline](#)


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