Response to "Potential Clinical and Radiographic Horizontal Gaze Deviation an Early Sign of Stroke"

Dear Editor(s),

We would like to thank Dr. Kattah for commenting on our article "Degree of Conjugate Gaze Deviation on CT Predicts Proximal Vessel Occlusion and May Expedite Endovascular Therapy".

Dr. Kattah posed an excellent question regarding NIHSS subscores for horizontal gaze deviation (HGD) in our cohort. To address this, we returned to our database and reviewed all patients with radiographic HGD in acute proximal vessel occlusion.

In the 72 patients with radiographic HGD, 24 patients (33.3%) had a NIHSS subscore of 0, 22 patients (30.5%) had a subscore of 1, and 25 patients (34.7%) had a subscore of 2 for horizontal extraocular movements. Out of 72 patients, 49 (68.0%) patients had clinical HGD and 23 (31.9%) did not exhibit HGD on physical exam. As reported elsewhere, patients usually close their eyes during CT scanning and fixation removal may enhance the detection of subtle neural abnormalities.[1] Radiographic HGD may therefore be more sensitive than clinical HGD.

We agree with Dr. Kattah regarding the importance of awareness for the entire spectrum of radiographic HGD. In our study, we found that patients with acute PICA stroke may exhibit HGD, which could erroneously raise suspicion for large vessel occlusion on CT.[2] We are conducting further analysis to explore the prevalence of this finding.

Nan N. Jiang, MD,[*]
Crystal Fong, MD,[*]
Demetrios J. Sahlas, MD,[†]
Sandra Monteiro, PhD,[‡]
Ramiro Larrazabal, MD[*,#]

[*] *Department of Diagnostic Radiology, Hamilton General Hospital, McMaster University, Hamilton, Ontario, Canada*
[†] *Divison of Neurology, Hamilton General Hospital, McMaster University, Hamilton, Ontario, Canada*
[‡] *Department of Biostatistics, McMaster University, Hamilton, Ontario, Canada*

https://doi.org/10.1016/j.jstrokecerebrovasdis.2019.104393

References

1. Kobayashi M. Horizontal gaze deviation on computed tomography: the visual criterion and lesion characteristics in ischemic stroke. Acta Neurol Belg 2018;118:581-587.
2. Jiang N, Fong C, Sahlas JD, et al. Degree of conjugate gaze deviation on CT predicts proximal vessel occlusion and may expedite endovascular therapy. J Stroke Cerebrovasc Dis 2019;28:1093-1098.

DOI of original article: http://dx.doi.org/10.1016/j.jstrokecerebrovasdis.2019.104389.
1052-3057/$ - see front matter