Letter to the Editor

Response to Letter Regarding Article, “Mechanical Thrombectomy Improves Functional Outcomes Independent of Pretreatment With Intravenous Thrombolysis”

We would like to thank Kamtchum-Tatuene et al for commenting on our recently published meta-analysis evaluating the potential interaction of pretreatment with intravenous thrombolysis (IVT) on the association of endovascular reperfusion therapies (ET) with functional outcome in patients with emergent large-vessel occlusion (ELVO).1 We conducted this study after reading another meta-analysis on the topic supporting that only in the subgroup of patients pretreated with IVT, ET was associated with a higher likelihood of functional independence compared with standard therapy.2 This finding drew our attention, as no such interaction was detected in the individual randomized controlled clinical trials including patients with and without IVT pretreatment.3,4

Even though our systematic review and meta-analysis provide additional evidence that ET is effective for patients with acute ischemic stroke (AIS) with anterior circulation ELVO independent of IVT pretreatment,5 we disagree with the notion that at present ET can be considered as an independent and initial treatment option for all patients with AIS. Current American Heart Association/American Stroke Association guidelines6 advocate that patients with AIS are eligible for ET with stent retrievers only if they have received previous treatment with IVT within the therapeutic window of 4.5 hours (class IIa, level of evidence C). They also report that ET may be offered to patients with ELVO and contraindication to IVT with a weak strength of recommendation (class IIa, level of evidence C).4 Therefore, the answer to the question of whether the initial treatment with IVT is still worthwhile for eligible patients with AIS remains positive, even for those with ELVO that could be readily offered ET. From practical standpoint and to answer the question of younger colleagues mentioned in the letter, the decision to give IVT can be made expeditiously (Helsinki model) and should be made at the time of noncontrast computed tomography (CT) that precedes CT angiography. If one waits for imaging to show ELVO, it may create an illusion that it is faster to take patient straight to the endovascular suite than to deliver tissue-type plasminogen activator to bedside. In fact, stroke teams after having performed quick neurological examination on the way to CT, should be able to mix tissue-type plasminogen activator to bedside and should be administered swiftly to all patients with AIS eligible for tissue-type plasminogen activator without delaying access to ET. This will take truly a team effort to jointly deliver evidence-based practices of vascular neurology and neurointervention.

Disclosures

None.

Georgios Tsiygoulis, MD
Department of Neurology
University of Tennessee Health Science Center
Memphis, Tennessee

Aristeidis H. Katsanos, MD
Second Department of Neurology
“Attikon” Hospital
School of Medicine
University of Athens
Athens, Greece

Andrei V. Alexandrov, MD
Department of Neurology
University of Tennessee Health Science Center
Memphis, Tennessee

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Georgios Tsivgoulis, Aristeidis H. Katsanos and Andrei V. Alexandrov

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