Point-of-Care International Normalized Ratio Measurements to Assess Eligibility for Thrombolysis in Acute Ischemic Stroke: Some Thoughts

To the Editor:

We read with interest the recent article by Rivos et al.1 The comparison of point-of-care international normalized ratio (INR) and central laboratory INR tends to be device dependent.2,3 This precludes the universal application and interfacility comparison of point-of-care INR values. This study, as well as other studies, has shown that 41% to 72% of patients who are on oral anticoagulants and present with acute ischemic stroke have subtherapeutic INRs.4 This implies either poor compliance or poor monitoring or dosing. Although we can deduce the potential utility of point-of-care INR in emergency room management of acute ischemic stroke, this study definitely prompts the need for studies to evaluate oral anticoagulant monitoring by using standardized home coagulometers and standardized dosing regimens for oral anticoagulants.5,6 Would the INR trend from patients with regular coagulometer monitoring at home be more useful than a single value in the emergency room in patients on oral anticoagulants presenting with acute ischemic stroke?

Time gain for thrombolysis for eligible patients was 28 minutes when compared with central laboratory INR, which was statistically significant. It would be important to look at comparable data and outcomes in patients who received IV thrombolysis only after their central laboratory INR results were back. This study reports an average central laboratory INR reporting time of 47 minutes, which could be of limited value because this was a single-centered study. Perhaps the utility of point-of-care INR values would be more evident if this would have been a multicentric study involving stroke centers even in developing countries.

No falsely low INRs were reported in this study, and there were no significant differences in intracerebral hemorrhage in patients who were thrombolized using the point-of-care INR values. Was this just a coagucheck device–dependent result? No data for intra-arterial thrombolysis or interventional devices were reported. Because the time window for using devices such as MERCI (Mechanical Embolus Removal in Cerebral Ischemia) is much longer (9 hours compared with the current American Stroke Association/American Heart Association guidelines—recommended 3.5 hours for IV tissue plasminogen activator), would the importance of time gain but lesser accuracy be worth the time gain?

Disclosures

None.

Neha Subhash Dangayach, MD
Neurology
Case Western Reserve University
Cleveland, Ohio

Tanmay S. Panchabhai, MD
Internal Medicine
University of Louisville
Louisville, Kentucky

Point-of-Care International Normalized Ratio Measurements to Assess Eligibility for Thrombolysis in Acute Ischemic Stroke: Some Thoughts
Neha Subhash Dangayach and Tanmay S. Panchabhai

Stroke. 2010;41:e431; originally published online April 8, 2010;
doi: 10.1161/STROKEAHA.109.574848

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://stroke.ahajournals.org/content/41/5/e431