Letter by Power Regarding Article, “Severe Renal Impairment Is Associated With Symptomatic Intracerebral Hemorrhage After Thrombolysis for Ischemic Stroke”

To the Editor:

I read with interest the brief report by Tutuncu et al about the association between advanced renal impairment (ie, an estimated glomerular filtration rate $<$30 mL/min) and the occurrence of symptomatic intracranial hemorrhage after acute stroke thrombolysis with tissue-type plasminogen activator. To their credit they have analyzed a sizeable cohort and used robust definitions for symptomatic intracranial hemorrhage. Nonetheless I would suggest that the use of an estimated glomerular filtration rate $<$90 mL/min to denote renal impairment, in the absence of data any abnormalities of urinalysis or renal tract anatomy, will result in significant misclassification of patients, particularly bearing in mind that the accuracy of estimating equations declines at glomerular filtration rate levels $>$60 mL/min.1,2 The absolute number of patients with an estimated glomerular filtration rate $<$30 mL/min experiencing symptomatic intracranial hemorrhage is small (n=6), and I think that interpretation of the data should take this into account, particularly when it is not clear from the text whether this group included patients on dialysis and what the intensity of their antiplatelet therapy was. Finally, these results need to be contrasted with data from a large US study that reported no significant difference in rates of intracranial hemorrhage after thrombolysis in $>$1000 patients receiving dialysis.3 In the absence of definitive data at present to the contrary, it is difficult to justify withholding a potentially transformational therapy for acute ischemic stroke from patients with advanced renal impairment.

It is clear that there is concern about the use of systemic thrombolysis for acute ischemic stroke in patients with significant renal impairment. The present compliments supplemented data that send a signal of concern about risks associated with thrombolysis that require further prospective, multicenter study.4,5 A research interface between nephrology and neurology is essential to understand mechanisms of stroke and its therapeutics in advanced kidney disease, especially in patients receiving dialysis who experience the highest stroke incidence.

Albert Power, MD
Imperial College Renal and Transplant Center
Hammersmith Hospital
Imperial College London
London, United Kingdom

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Albert Power

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