

Author Response: Factors Requiring Improvement for Timely and Effective Treatment of Acute Stroke

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Dear Editor,

We thank Dr Finsterer for his interest in our article and his insightful comments.¹ We agree with his suggestions for improving awareness in both the general population and healthcare professionals for an early recognition of stroke. There have been efforts from health institutes in this direction but much more needs to be done as awareness remains low.² Education regarding stroke symptoms and the importance of a rapid intervention can certainly reach the masses *via* media including cinema, newspapers, and more government initiatives are needed in this regard. Increasing public-private partnerships and imparting basic knowledge of stroke from the school level will render the newer generations more informed.

Given the already overburdened infrastructure in Indian cities and an ironical lack of the same in rural areas, dedicated lanes and airborne transport remain only a distant thought. We concur with Dr Finsterer regarding the notion of mobile stroke units which, if widely available throughout the country, can cut down the transportation and intrahospital delays. Such mobile stroke units have been started in some parts of the country but are still not readily available including in the national capital itself.

Our study, having been conducted in a private institute, involved performing a magnetic resonance imaging (MRI) scan for all stroke patients and a thrombolysis decision taken after imaging and in consultation with a neurologist. However, 24-hour MRI facilities are not available at all health setups. Government hospitals usually have few machines but are already overwhelmed with the high patient load of non-stroke patients.³ Rural hospital setups usually have no MRI facility. The government and local and hospital administrations must draw frameworks to keep at least one emergency MRI machine available for stroke patients and increase the overall number of machines available, not just at higher centers but at all levels of health care.

We completely second the suggestion regarding a local stroke management system. Unfortunately, there are no established stroke networks in a majority of the cities in India. India also lacks in stroke registration and data collection. It is imperative that all health setups improve stroke registration and that local stroke units be established in all cities for better coordination and easier inter-hospital transportation.

We fully agree with the actions suggested in controlling the modifiable factors such as uncontrolled blood pressure and active anticoagulation, as have been utilized successfully in our study as well. However, unlike most Western countries, mechanical thrombectomy

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(TE) remains a far less readily available modality in our country. Except for some specialized centers, TE has not reached most institutions, both private and public. The cost factor also remains a major barrier to receiving these therapies.⁴ There is a definite need to improve access, to not only thrombolytic therapy but also advancing technologies such as TE, and incentivize such procedures to enable a wider section of society to receive the benefits.

Consent remains a small yet often ignored factor hampering thrombolysis. The government guidelines mandate informed consent prior to thrombolysis. Given the lack of information on the disease and the risk vs benefits of early therapy among the masses, timely consent becomes another hurdle. Switching to informed verbal consent may also significantly improve the timeliness of therapy as done elsewhere.⁵ The authorities and medical bodies must review and amend policies that govern the role of consent in stroke thrombolysis.

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