Endovascular Stroke Treatment: Is it "Everybody's Cup of Tea?"

Sir,

We read with great interest the article "A call for neurologists to take up stroke intervention" by Padma *et al*. published in your journal.[1] The management of stroke is like an upright pyramid with interventionists occupying the apex and catering to perhaps <10% of the entire disease burden, as emphasized in the article. More planning is required to meet the unmet needs at the base. To cater this unmet need, the neurologists especially the ones in the premier national institutes as the authors of articles, need to plan the various strategies so that the internal medicine graduates are confident enough in treating the acute stoke and motivated enough to spread the word into the community at large. In the community, acute myocardial infarction is synonymous with "heart attack" and has, with time, attained a status of acute emergency thus patient and attendants are aware of the value of time, prognosis, and likely expenditures. Stroke is yet to be equivalent to the "brain attack" and this is one of the major areas requiring more works and efforts.

The article concentrates on the treatment modality (endovascular treatment) which at present is costly, dependent on the availability of dedicated angiography laboratories, time bound and needs a fair deal of expertise. Endovascular stroke therapy has become the mantra in the present day as after decades some other form of treatment apart from intravenous (IV) tissue plasminogen activator, has become available and thus the "Call for neurologists to take up stroke intervention."

However, the point to remember is that still IV-thrombolysis is the mainstay treatment in the majority of the stroke patients. Although this technique is available for such a long time still not even 10% of the Indian stroke patients, receive it. In a study published from a premier tertiary care center, in a period of 4 years total of 54 patients were thrombolysed which makes it approximately 1.12 patient per month.[2] In another study on endovascular treatment of stroke over a period of 4 years, 45 patients were treated.[3] These are not isolated examples in other centers, the numbers are far less. Is it because of the limited number of neurologists? If so how this coverage will increase if those same physicians take up intervention which needs much more time, training and infrastructure? We feel that instead of calling neurologists to take up a new form of treatment, focus should be to increase the coverage of IV-thrombolysis which is going to remain the first-line stroke therapy in times to come especially in resource starve country like India.

The second step should be to identify or develop dedicated tertiary stroke setups in the country, which can offer 24 × 7, 365 days stroke interventions with trained, experienced interventionist. Studies have shown that outcomes of endovascular treatment are better at high volume centers and thus every attempt should be made to establish such centers at least few in each state.

With regards to who should be doing these interventions? Cardiologists claim that they are the most apt people for this since they already are doing cardiac revascularizations and have the necessary setup. Neurologists feel, as this article says, that since they are the ones seeing stroke patients, they should be the one doing it akin to cardiologists. Neurosurgeons feel since they are working 24 × 7 in surgical emergencies for acute head trauma cases and are always available in the hospital, so they are better suited. Neuroradiologists feel that since they trained for 3 years in the diagnosis of neurovascular diseases and endovascular treatment they are more suitable for the job. They are treating cerebral arteriovenous malformation, aneurysms, etc., in addition to acute stroke they are better equipped to not only treat but also to deal with any complications if they occur. In addition, they have the necessary skill set to undertake and interpret computed tomography/magnetic resonance imaging scans, angiographies, perfusion scans, etc., which is a must for identifying patients for endovascular therapy.

We feel, it is not the question of who does it but who does it well. Anyone who is primarily doing neuroendovascular treatment in their practice, have necessarily structured training and not doing this just because its in vogue or more rewarding financially, should take up this treatment modality. The need of the hour is not to make it a turf battle but to develop a strategy in which more and more doctors can perform these procedures, seeing the unmet need in the country. One way to do that would be to develop dedicated fellowship programs in the bigger centers having the infrastructure and faculty who are trained and experienced in these procedures. Only caution is that these should not be short hands-off fellowships (as the ones being presently offered) where residents observe or assist the technical aspects for 3–4 months and start doing the procedures independently. As in Western countries who have been doing it for a longer time, such fellowships should be at least of 2 years duration encompassing not only the technical details of the procedures but also focused on basic disease processes, pathophysiology, imaging, pre- and post-procedure care, and prevention of the disease.

Hence, in our opinion, we as a county need to develop structured training programs and then give out a "Call for Doctors to take up stroke intervention training."

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Conflicts of interest

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