

The need for Stroke code and Thrombectomy in Pakistan

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Madam, stroke is one of the oldest studied medical illnesses, but it remains the second leading cause of mortality worldwide. The yearly mortality rate is over 5.5 million.¹ However, in Pakistan, the estimated annual incidence of stroke is 250/100,000 or 350,000 cases; with the bulk occurring in the middle-aged. Due to a lack of information about the illness and its treatment choices, hundreds of individuals die each year, and an even more significant number live with a lifelong disability.²

If determined to be ischaemic, stroke is treated immediately with an intravenous injection of recombinant tissue plasminogen activator, r-tPA, which is the standard gold treatment, according to guidelines, as long as the patients are transferred to a stroke unit within 4.5 hours. Thrombectomy, stents, surgery, and other medicines are also used.¹ As stated previously, most strokes occur in middle-aged people. This, along with the fact that Pakistan is a developing country with a development trajectory based on this age demographic, makes the existence of just ten stroke treatment facilities grossly disproportionate to the disease burden, which was 9.1 million stroke victims as of 2015. Only six hospitals in Pakistan provide r-tPA injections. Only four do thrombectomy (the second most successful surgery), with only one public hospital in Lahore offering it for acute stroke.² Thrombectomy has a 24-hour timeframe. And if done correctly, it may reverse stroke damage.³

In Pakistan, most stroke patients are initially missed, and those diagnosed cannot reach a stroke unit (if available) in time. They are typically treated conservatively, mainly with medications, rehabilitative care, and nursing care. An appropriate stroke code must be developed, starting with the first responder, who will assess and contact a stroke unit, thereby initiating a stroke code and ensuring the presence and readiness of an on-ground team to receive the patient. It is imperative to educate the public about stroke symptoms and indicators through simple seminars and campaigns. Once completed, the door-to-needle time will be considerably reduced, resulting in fewer delays and better decision-making,

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eventually enhancing the patient's prognosis.⁴

Pakistan trails behind in several areas of health care. The most concerning issue is the scarcity of stroke units and interventional neurologists.⁵ There is only one neurologist per million persons; these numbers are substantially lower for interventional neurologists.⁵ Furthermore, only one public teaching hospital provides fellowships in neuro intervention and mechanical thrombectomy throughout the nation. Moreover, since 2009, just one institution in the nation has offered a one-year stroke fellowship. The government of a growing country, such as Pakistan, plays a vital role in directing progress by allocating a predetermined budget. Therefore, there is an imperative need for policies and plans to establish more stroke units, Cath labs, and training programmes/fellowships in neuro interventions to meet the population's requirements. Furthermore, the government and concerned departments should conduct campaigns, sensitization programmes, and considerations to establish a "National stroke hotline" so that affected individuals know who and where to contact with a minimal amount of inconvenience. Implementing the programmes mentioned above may allow health care practitioners to treat stroke patients better per international guidelines/standards, thus improving patient outcomes.

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