Brain Attack and Stroke Team Concept in Thrombolysis for Acute Ischaemic Stroke

Dear Editor,

Acute ischaemic stroke (AIS) is a medical emergency. Stroke is the third commonest cause of death and the leading cause of adult disability. Its burden is set to increase because of an ageing population. Recombinant tissue plasminogen activator (rtPA) was licensed more than a decade back for the treatment of AIS [1]. It has the potential to radically change the early management of AIS and reduce resultant disability.

However, its successful implementation poses a number of important challenges. The safe introduction of thrombolytic therapy can take place against the backdrop of an organized, efficient and integrated stroke service. "Time is brain" is a useful phrase to help persuade the health professionals identify suitable patients quickly. Emergency triage should be an appropriate "fast track" protocol to activate the acute stroke team [2,3]. Organized stroke unit care has been shown to offer benefit. The sooner the treatment is given to suitable stroke patients the greater the benefit. There is a strong association between rapid treatment and favourable outcome. Meeting the required timeframe is only achievable alongside the promotion of rapid recognition of stroke symptoms by the public at large, public education about "brain attack" and a recognition that such patients require urgent transfer to hospital as quickly as possible and prompt access to specialized acute stroke units [2,3].

Although many patients do arrive in hospital within three hours of onset, unless they are triaged as high priority (much in the same way as those with acute heart attacks) and managed quickly, thrombolysis is unlikely to have a major impact on outcome. The same is true of most service hospitals where the doctors as well as the paramedics need to be sensitised to rapid diagnosis of AIS and early institution of thrombolytic therapy. Clearly, we have a long way to go before "brain attack" is given the same degree of priority and urgency as "heart attack" [2].

Given the burden of stroke that is managed at tertiary care service hospitals, it is time we formally introduce early and safe

implementation of thrombolysis in acute stroke of less than three hours. At a peripheral level, medical officers can educate the soldiers and their families on early stroke identification and consultation at the nearest hospital equipped with neurology services. The concerned administrative authorities can organize lectures on stroke awareness and posters highlighting the salient aspects of brain attack management can be useful. At the tertiary care level, establishing stroke team and stroke care units to manage brain attack will go a long way in reducing the morbidity and mortality related to stroke. A stroke protocol for the armed forces needs to be considered so that patients of AIS reaching a neurologist in the stipulated window period of three hours, are subjected to the approved mode of intravenous therapy with rtPA only. Patients who are out of the time window can be subjected to other modalities of neuroimaging and intraarterial rtPA as per the emerging guidelines [4]. Violation of thrombolysis protocol in AIS management can be hazardous.

References

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