

Thrombolytic and Interventional Therapy for Acute Ischaemic Stroke — Are We Ready in Hong Kong?

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Background

Stroke is the second leading cause of death in China and many parts of the world. Stroke is also a very common cause of neurologic disability. Advances in acute stroke therapy include intravenous and intra-arterial thrombolysis, acute stroke unit, and imaging of ischaemic penumbra. Acute thrombolysis is only a component of acute stroke care, as few stroke patients are eligible. Haemorrhagic transformation of infarction (HTI) remains a major concern.

Methods

In collaboration with the Accident and Emergency Department and Department of Radiology at the Queen Mary Hospital, stroke patients were screened for immediate computed tomography (CT) of the head and eligibility for intravenous or intra-arterial thrombolysis, or for recruitment into ongoing trials of neuroprotectants since November 1997. Owing to lack of supporting manpower and resources, screening was performed only during office hours.

Results

Quite a number of patients were identified at the Accident and Emergency Department as suffering from hyperacute stroke. The diagnosis was not stroke in some, many were ineligible because they had intracerebral haemorrhage or the treatment time window was exceeded, and some patients or their relatives did not accept the potential risk of acute thrombolysis. Altogether 19 patients were treated with acute thrombolysis, and another 19 patients participated in clinical trials on neuroprotectants. Five patients received intra-arterial thrombolysis, and 14 received intravenous thrombolysis. For the latter, the mean door-to-CT time was 56 min, and the mean door-to-needle time was 107 min. HTI occurred in 2 patients with intravenous thrombolysis and in 4 patients with intra-arterial thrombolysis.

Conclusions

Reorganization of acute stroke service with allocation of supporting manpower and resources will allow round-the-clock screening of stroke patients for acute thrombolysis. More experience with acute thrombolysis will shorten the door-to-CT time and door-to-needle time and provide more reliable information on local rate of HTI.