

MANAGEMENT OF ACUTE ISCHAEMIC STROKE FOR INPATIENTS AT A NON-PRIMARY STROKE CENTER

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Introduction

Patients in Institut Jantung Negara are at high risk for ischaemic stroke due to similar risk profile with ischaemic heart disease. As a cardiac hospital, majority of patients are admitted for heart-related disease. However, data showed there were several patients who developed acute stroke during admission.

Objectives

Objectives of this study was to develop a process for management of acute ischaemic stroke for inpatients and to study the clinical outcomes.

Methods

A multidisciplinary team developed a new work process to manage inpatient acute ischaemic stroke with assistance from Neurology team, Hospital Kuala Lumpur. The process includes early identification of a possible stroke using BE FAST acronym, early activation of doctor and immediate CT brain by activation of a 'Stroke Code'. 'Stroke Code' activates the Radiographer and Radiologist for CT Brain, CT Angiogram, CT Perfusion with image interpretation. When intracranial bleed is ruled out, Neurology team is activated to review patients and determine treatment modality, either thrombolysis, thrombectomy or conservative. Data was collected from 1/10/2023 to 31/5/2024 on patient demographics, National Institutes of Health Stroke Score (NIHSS) score, risk factors and outcomes.

Results

21 patients were included in the study. 62% (n=13) were male and 38% (n=8) were female. Age ranged from 33 years to 85 years, highest in the 61-70 age range. 11 patients developed symptoms after surgery or procedure where 9 were post Coronary Artery Bypass Graft (CABG), 1 post angiogram and 1 after pacemaker insertion. 8 out of 9 CABG patients had atrial fibrillation. Average time from Stroke Code

activation to CT interpretation was 1 hour and 45 minutes. Out of 14 patients who had NIHSS, 6 scored 0-4 (minor stroke), 6 scored 5-15 (moderate stroke) and 2 scored over 15 (moderate to severe stroke). 2 patients received thrombolysis within 4.5 hours of stroke onset and survived to discharge, both with Cerebral Performance Category 3. Only 1 patient died during admission.

Conclusion

Having a process for Acute Stroke management for inpatients in a non-neurology hospital has benefits for at risk patients. Thrombolysis is a viable option for patients who fulfil treatment requirements with good outcomes.

Keywords

Stroke, thrombolysis, NIHSS