

INTRODUCTION

Globally, stroke has been one of the leading causes of morbidity and mortality over the years. A study reported that the largest increase of stroke incidence in Malaysia was seen in age group of 35-39 years, 53.3% in men and 50.4% in women. Cervical artery dissection (CAD) is responsible up to 25% of young stroke despite its rare entity. This reported case raised suspicion of CAD in a patient presented with post-traumatic neurological deficit.

CASE DESCRIPTION

A 37-year-old gentleman was allegedly assaulted by two people. Mechanism and time of injury were unknown. Patient presented to emergency department with a Glasgow Coma Scale of E4V1M5 and pupils were 2/2 reactive. Patient was aphasic, had facial asymmetry and dense hemiplegia on right side. Computed tomography angiography (CTA) of brain/carotids and contrast-enhanced computed tomography (CECT) of brain revealed no evidence of carotid artery dissection, with a partially occluded M2 segment of left middle cerebral artery (MCA) causing left MCA territory infarction. Patient was diagnosed as acute ischaemic young stroke secondary to left MCA infarct with National Institutes of Health Stroke Scale (NIHSS) of 24. Patient was started on aspirin and admitted for further workup of young stroke. Intravenous thrombolysis was not performed as patient was out of the golden period.

DISCUSSION

CAD is associated with different forms of trauma, including as simple as sneezing. CTA, with a sensitivity and specificity ranging between 65% and 100%, is one of the diagnostic modalities of CAD, where it reveals eccentric or crescent-shaped vessel wall thickening¹. CTA with normal vessel caliber does not always exclude arterial dissection. Further imaging with magnetic resonance angiography (MRA) is needed if clinical suspicion is high, where its sensitivity in diagnosing carotid artery dissection is 95%, but lower for vertebral artery dissection (60%)². Antithrombotic treatment with either antiplatelet or anticoagulant is the treatment of choice for CAD-related ischaemic stroke, with neither regimen is superior one to the other. Endovascular treatment provides 66.7% of patients a good functional outcome at 90 days despite the risk of intracranial haemorrhage³.

CONCLUSION

As comprehensive evaluation of young stroke is essential, traumatic CAD cannot be ignored in this reported case, despite being a rare diagnosis. In cases of post-traumatic neurological deficit, timely diagnosis with CTA is crucial for neurointervention to be commenced.

Keywords: young stroke, ischaemic stroke, cervical artery dissection

References:

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