The penumbra of fleeting neurological symptoms: a case of thrombectomy over 6 hours after symptom onset

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ORAL PRESENTATION

Introduction: Short-term episodes of neurological dysfunction resulting from focal cerebral ischemia are classically defined as transient ischemic attacks (TIA), while a new infarct on imaging defines stroke. Plain head CT is still the modality of choice in the hyper-acute phase, while advanced imaging - CT-angiography and CT-perfusion - are performed in select centres. We report a case of stroke which highlights the usefulness of advanced imaging.

Case Report: A 69-year-old woman with hypertension, dyslipidaemia and colic adenocarcinoma in remission presented at another institution complaining of dysarthria and left hemiparesis, which had lasted for 2 hours. Upon evaluation, her neurological exam was reportedly normal, and the brain CT was unremarkable. She was discharged after 12 hours of surveillance without symptom recurrence. Eight hours later, symptoms recurred; she scored 5 on the NIHSS due to dysarthria, hemihypesthesia and left hemiparesis (G4/5). CT-angiography showed a right M2 occlusion and she was transferred for mechanical thrombectomy. Repeat CT ASPECTS was 10. CT-perfusion showed no ischaemic core and a hypoperfused area, centred in the Rolandic region, corresponding to an area of ischaemic penumbra. Mechanical thrombectomy was performed 9 hours after symptom onset. She scored 0 on the NIHSS 24h after the procedure, and the inpatient follow-up was uneventful. No definite stroke aetiology was found, despite comprehensive investigation.

Conclusion: This case illustrates the TIA-stroke continuum and the importance of early advanced imaging in the setting of the recently published stroke guidelines.