

Case of the Week

MECHANICAL THROMBECTOMY IN ACUTE ISCHEMIC STROKE

Acute stroke, also called as "brain attack" is a common neurological emergency.

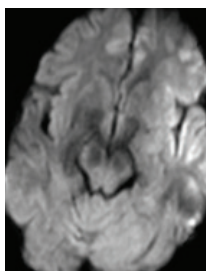
Treatment of acute ischemic stroke is possible in a short window period (time from onset of symptoms to presentation to hospital). Intravenous thrombolysis can be done upto 4.5 hours.

Mechanical thrombectomy is indicated for patients with acute ischemic stroke due to a large artery occlusion and who can be treated within 24 hours from symptom onset. In this procedure, catheter is placed inside the blocked artery through groin. Blocked artery can be opened with the help of stent-retrievers or suction catheters. It is not open surgery and can be done with local anaesthesia. Eligible patients can receive standard treatment with intravenous tissue plasminogen activator (tPA) if they present to hospital where thrombectomy is not an option, and can then be transferred to tertiary stroke centres where Mechanical thrombectomy is available - a strategy called "drip and ship".

Case report: A 54-year-old male, a known case of HTN developed acute onset right hemiplegia, aphasia and presented with high NIH stroke score - NIHSS (22). Magnetic resonance angiography (MRA) brain showed evolving left middle cerebral artery (MCA) ischemic stroke with left MCA occlusion.

Patient was started with intravenous thrombolysis and immediately shifted for mechanical thrombectomy. Onset to groin puncture time was 3.5 hours. Mechanical thrombectomy was done using stent retriever and multiple clots were removed from occluded left MCA with TIC1 3 flow in first pass. CT brain after 24 hours showed no large infarct or bleed. Post the treatment, patient's condition improved and was discharged on day 4.

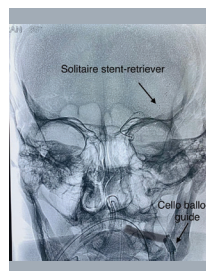
Conclusion: Acute ischemic stroke is a treatable neurological emergency. Timely done intravenous thrombolysis and Mechanical thrombectomy improve clinical outcomes dramatically. Treatment of stroke should not be delayed because "Time is Brain".



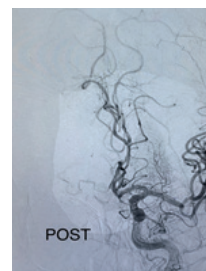
MRI Brain



Occlusion MCA on DSA



Intra-OP



TIC1-III flow in MCA



Patient's condition improved on POD-4

CLINICAL TEAM

Dr. Vishal A Chafale

Consultant, Interventional Neurology
Apollo Hospitals, Navi Mumbai

Dr. Shekhar Patil

Consultant, Neurology
Apollo Hospitals, Navi Mumbai