Intravenous and intraarterial thrombolysis: can we do it together?

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Abstract

A 38 years old woman, with no relevant past medical history, was admitted to the Emergency Department with dysarthria, left flattened nasolabial fold and left hemiparesis (NIHSS: 8). Brain computed tomography (CT) revealed spontaneous hyperdensity in the M1 and M2 portions of the right middle cerebral artery (MCA), with early signs of ischemia (ASPECTS 8/9). Intravenous (IV) recombinant tissue plasminogen activator (rt-PA) (0.9 mg/kg) within 3 and half hours of onset of the symptoms was performed and referral to a tertiary center for mechanical thrombectomy. At arrival, five hours later, she underwent brain CT that showed ischemic lesion on the right temporal-insular region, lenticular and caudate nucleus (ASPECTS 6/7) and angio-CT revealed probable M2/M3 portions of the right MCA occlusion. Cerebral angiographic confirmed M3 (frontal-parietal branch) portion of the right MCA occlusion and intra-arterial (IA) rt-PA was performed with TICI 2c. Control brain CT showed infarcts of right temporal-insular, lenticular and caudate nucleus, with slight mass effect, with no hemorrhagic transformation. Transesophageal echocardiography study revealed an interauricular septal defect with patent foramen ovale and right-left shunt. The remain study was normal. She was discharged after 7 days with minor dysarthria, left facial central palsy and left hemiparesis – NIHSS 6. This case illustrates that, although the role of IA thrombolysis is not consensual, there may be a clinical benefit in patients with distal occlusions.