Challenges of acute stroke treatment: when treating the brain is not enough

Miguel Quintas-Neves, Sofia Xavier, Carla Ferreira, Jaime Rocha, and José Manuel Amorim

From the Lisbon Stroke Summit, Lisbon, Portugal. 5–6 April 2019.

Abstract

A 51-year-old male was admitted in the emergency department with 6-hour evolution of left arm paraesthesia and left hemifacial palsy. Neurological examination revealed left visual and sensitive hemiextinction, left central facial paralysis and mild paresis of the upper left limb. Brain computed tomography (CT) and CT–angiography showed a subacute right frontoparietal hypodensity and right internal carotid proximal occlusion. Unsuccessful attempts were made to pass the occlusion with microguidewire and microcatheter. Left carotid angiogram showed contra-lateral compensation by a functional anterior communicating artery, despite delayed filling of the right middle cerebral artery. Severe stenosis of the left carotid cavernous segment was also found, for which best medical treatment was done. Brain CT at 24 hours confirmed a right peri-Rolandic infarct and excluded other complications. On the stroke unit, the patient developed a persistent anaemia, that was found to be associated with an active duodenal ulcer, partially treated by endoscopy due to its chronic nature. After a post-procedure period of severe agitation handled with sedation, the patient fully recovered to an unremarkable neurological state. However, sudden aggravation of the anaemia followed due to duodenal re-bleeding. Patient became comatose and brain CT showed bilateral ischemic lesions on multiple territories, leading to patient's demise. The development of persistent hemorrhage due to refractory duodenal ulcer most probably led to brain hypoperfusion, inefficacious collateralization and severe brain ischemia. This case stresses the importance of effectively treating co-morbidities after an ischemic stroke and the potential burden of stenting in a patient with contraindication to antiplatelet therapy.