The egg or the chicken: bilateral deep venous thrombosis and left thalamic stroke

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Abstract

Background: Thalamus is a transition nucleus, fundamental in several neuronal activities, including memory, language and mental alertness. It may be involved by vascular and inflammatory disorders, trauma, tumours and infections.

Case report: 41-year old man with an unremarkable medical history started experiencing intense abdominal pain; nephrolithiasis was identified and opioid analgesics prescribed. Five days later, his wife notices speech slowness, disorientation, mood change and inappropriate behaviour and laughing. Despite arriving with his sister in law, he was unable to recognize her. Neurological examination disclosed a scarce speech with precipitate often wrong answers; working and recent memory, attention and abstraction were frankly compromised. He had no insight for his condition. Brain Computed Tomography scan revealed a left anterior thalamic lesion, with third ventricle moulding and no contrast enhancement; diffusion restriction pattern on brain magnetic resonance imaging identified it as a recent ischemic lesion. Six days after admission, he complained of intense bilateral calf pain which enabled him to walk. Bilateral leg deep venous thrombosis (DVT) was diagnosed and anticoagulation started. Both transoesophageal echocardiography and transcranial Doppler ultrasonography revealed a patent foramen ovale (PFO) with a significant right-left shunt. Autoimmune study was negative and a paraneoplastic cause was excluded. Thrombophilia screen is currently underway.

Conclusions: PFO is frequently implicated in the aetiology of stroke, particularly in young patients with an apparent cryptogenic stroke. The suspicion about a paradoxical embolism mechanism was raised in this patient given the absence of vascular risk factors and concomitant unusual bilateral leg DVT.