Recurrent stroke in a young adult: a difficult case

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Abstract

Introduction: Stroke aetiology more often remains undetermined in younger than in older adults. Incomplete investigation and a wider variety of aetiologies could be contributors.

Case Report: A 26-year-old female, with history of Raynaud phenomenon, chronic anaemia, hormonal contraceptive use and vegetarian diet, presented with sudden onset of visual difficulties and transitory right upper arm paraesthesia. On examination, there was evidence of right superior homonymous quadrantanopia. Brain MRI showed acute ischaemic lesion of the left posterior cerebral artery territory with occlusion of the P2 segment on MR angiography.

Further investigation revealed: severe iron deficiency, protein S deficiency, positive anti-nuclear and anti-ribonucleoprotein antibodies, bilateral pulmonary thromboembolism and alpha-galactosidase A low activity. Exams were negative for right-to-left shunt, cardiac disorder, vasculopathy, neoplastic or infectious aetiology. A diagnosis of undifferentiated connective tissue disease was established.

On the 8th day of hospitalization, there was sudden clinical deterioration with slight aphasia, right-sided mild paresis and hypoesthesia. Brain MRI revealed another acute cortical ischaemic lesion of the left medial cerebral artery territory.

The patient was discharged under anticoagulation treatment with pending genetic results (protein S deficiency and Fabry disease).

Conclusion: We present a challenging case of recurrent stroke in a young adult female with concomitant pulmonary thromboembolism without right-to-left shunt. Several factors could be contributing to the aetiology (hormonal contraceptive use, protein S and iron deficiencies, connective tissue disease). This case illustrates the complexity of determining the cause of stroke in young adults and the need of extensive diagnostic workup to best direct the treatment.