

## **Abstract**

Ischaemic stroke has aetiologies that are broadly categorized in the TOAST Classification. While atherosclerotic diseases predominate in the elderly population, other pathologies become important in the younger stroke population. Hypercoagulable states are an important such entity and hyperhomocysteinaemia is gaining interest. Homocysteine is a four carbon amino acid formed from the amino acid methionine, which is toxic to the endothelial cells. Its clearance needs vitamin B6, B12 and folic acid the deficiency of which, causes supra physiological levels of homocysteine leading to thrombotic occlusion of vessels in the brain, heart and the peripheries. We report of a 15 year old boy who came with right sided arm weakness of acute onset. He had no past medical history of note and there was no family history of young cardiovascular morbidity or mortality. The MRI brain showed an infarction of posterior half of left lentiform nucleus with extension to corona radiata. A diagnosis of left sided ischaemic stroke was made. The usual risk factor assessment was conducted and as these were negative, possibility of a hypercoagulable state was actively investigated, which led to the identification of an elevated fasting homocysteine level. A genetic analysis confirmed a heterozygous defect in the MTHFR. The young boy made an early clinical recovery with physiotherapy. He was started on vitamin B12 and folate replacement along with routine secondary stroke prevention treatment.