

THE IVY SIGN IN ADULT MOYAMOYA DISEASE

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A 30 years old gentleman with no known medical illness presented with headache and vomiting associated with right hemiparesis. Neurological examination revealed reduced power of both lower limbs (4/5). The patient's condition deteriorated, and he subsequently passed away.

"Ivy sign" was first described in 1995, so called because of its resemblance to 'ivy creeping on stone'(1) noted in post contrast MR images of approximately 70% of Moyamoya patients (2). It appears as continuous or discontinuous linear leptomeningeal enhancement due to

accumulation of gadolinium in engorged pial vascular network formation that causes leptomeningeal collateral development (1, 2).

It can also be depicted on FLAIR image since fluid signal is effectively suppressed in this sequence; appears as high signal intensities along the cortical sulci and subarachnoid spaces (3). Recognizing Ivy sign as part of Moyamoya disease will avoid misdiagnosis, confusion with other differential diagnosis and eliminate potential unnecessary investigations.

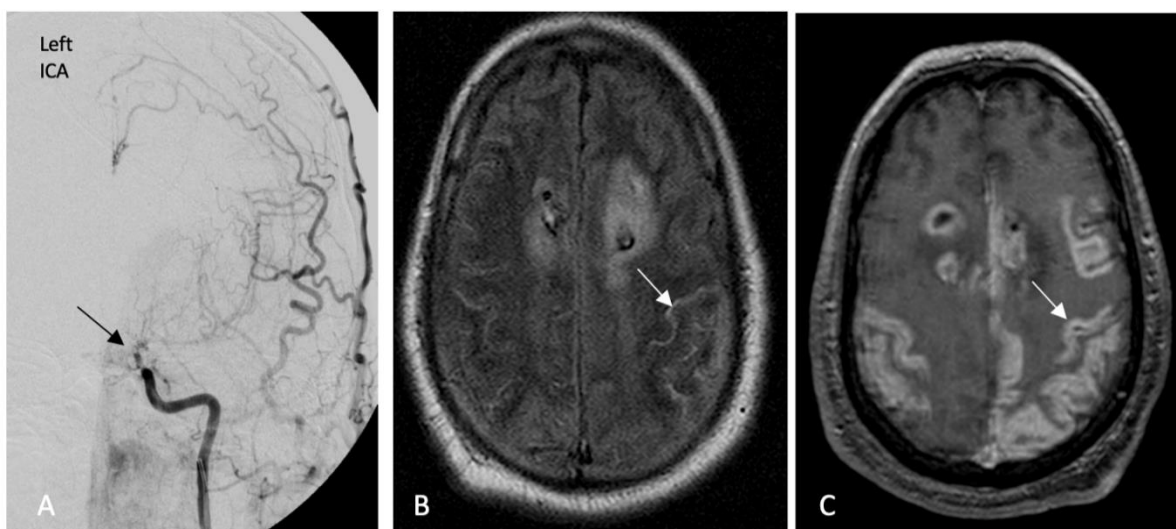


Figure 1: (A) Selective left ICA DSA shows steno-occlusion of distal left ICA, A1 segment of left ACA and M1 segment of left MCA with associated collateral vessels that gives the appearance of puff of smoke (black arrow) in a Moyamoya disease. (B) Axial T2 FLAIR shows hyperintensity in bilateral cerebral sulci and (C)

axial post gadolinium T1 weighted demonstrates marked leptomeningeal enhancement suggestive of Ivy sign (white arrows) in a Moyamoya disease.

Abbreviation: DSA - *digital subtraction angiography*

CONFLICTS OF INTEREST

I have no potential conflicts of interest to report with regards to this presentation

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