



# Clinical and Imaging Correlation in a Patient Series with Migrainous Infarction (MI) and Ischemic Stroke Related to Migraine (ISRM)

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## OBJECTIVE

MI is a rare migraine complication. As ISRM we characterize the ischemic stroke that does not fulfill the strict MI criteria but is temporally related to a migraine attack. The objective is clinical and imaging correlation of a patient series with MI and ISRM aiming to expand current knowledge.

## METHODS

We describe seven patients with history of migraine with aura, who exhibited a migraine attack with/without aura with neuroimaging demonstrating ischemic infarction in a relevant area, while diagnosis was not better attributed to another ICHD-3 diagnosis. Medical history and clinical examination were recorded, complete stroke work up was done and magnetic resonance imaging was performed.

## RESULTS

The patients' median age was 41 years, there was a 7:3 female to male ratio, while 28,6% smoked and had patent foramen ovale. 57,1% exhibited visual aura followed by sensory and dysphasic abnormalities in 28,6% and basilar aura symptoms 14,3%. On neuroimaging, ischemic lesions were located on one vascular territory, 71,4% posteriorly, 28,6% anteriorly, 57,1% being isolated, 42,9% multiple (Fig.1). Clinically, all patients exhibited mild neurological deficit and there was an overall reduction of migraine attack severity and frequency, following the ischemic episode.

## CONCLUSION

Current theories separate mechanisms generating migraine related ischemia from thrombotic generated classic ischemia. This study does not provide data favouring one particular theory, but studying more cases of MI and ISRM will elucidate the pathophysiological basis and determine risk factors, prognosis and treatment

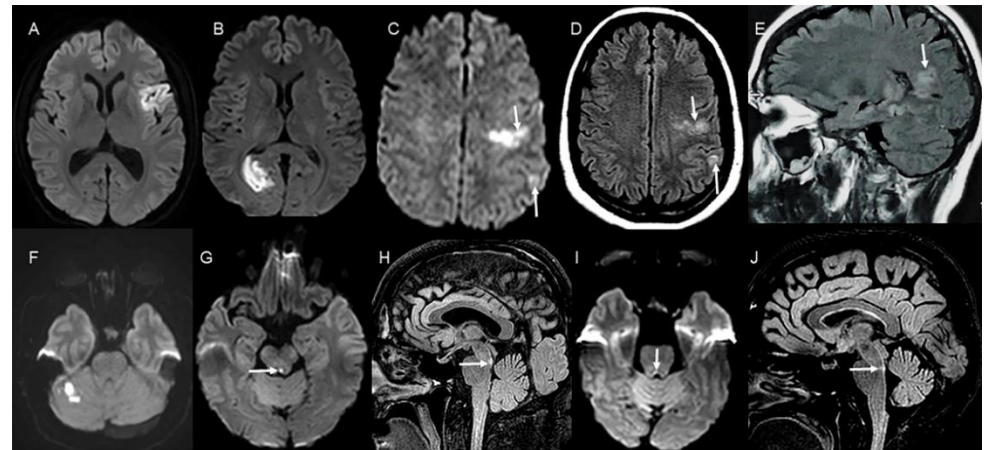


Fig.1

MRI Findings in FLAIR/DWI Weighted Imaging

## References:

Vinciguerra L et al; Migrainous Infarction And Cerebral Vasospasm: Case Report And Literature Review. J Pain Res. 2019 Øie LR, Kurth T, Gulati S, et al; Migraine and risk of stroke, Journal of Neurology, Neurosurgery & Psychiatry 2020