

# Migrainous Infarction: Case series in a neurological center of Buenos Aires

Wainberg F (1), Castiglione JI (1), Burdet L (2), Rodriguez Perez MS (3), Goicochea MT(4)

- 1. Neurology department. FLENI.
- 2. Diagnostic imaging department. FLENI.
- 3. Vascular Neurology. Neurology department. FLENI.
- 4. Headache clinic. Neurology department. FLENI.

## Background and objectives

Migrainous infarction (MI) is a rare complication of migraine with aura (MwA) that must be considered in patients that present with aura episodes lasting more than 60 minutes. According to ICHDIII criteria, one or more migraine aura symptoms associated with an ischaemic brain lesion in the appropriate territory demonstrated by neuroimaging, confirm the diagnosis. The objective of this series is to describe our experience related to patients with MI.

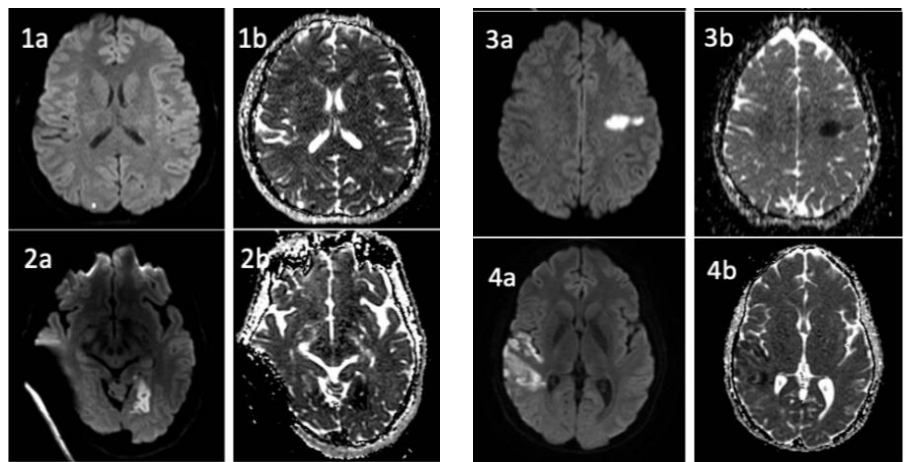
## Materials and methods

Clinical records of adult patients with MI diagnosed at our institution from June/2006 to June/2020 were retrospectively reviewed. Demographic data, neuroimages findings, treatment and long-term evolution were analyzed.

## Results

**Table 1: general information**

Patient number	Sex	Age	CV risk factors	Years since MwA diagnosis	Type of habitual aura	Ergotamine derivatives/ triptans use	Duration of aura symptoms	NIHSS at first evaluation	Stroke volume on MRI (cm3)	Vascular territory affected	NIHSS at discharge
1	F	28	Smoker	> 5	Visual + sensory	X	3 hs	0	0.5	MCA	0
2	F	27	No	> 5	Visual + motor	X	5 hs	1	1.45	MCA	0
3	M	64	Hipertension / previous smoker	> 5	Visual + language	X	4 hs	2	0.3	MCA	0
4	F	26	Smoker	> 5	Visual	X	4 hs	0	0.65	PCA	0
5	M	25	No	> 5	Visual + sensory	✓	24 hs	0	0.155	PCA	0
6	F	35	Previous smoker	> 5	Visual	✓	24 hs	0	0.175	PCA	0
7	F	94	High cholesterol	> 5	Visual	X	30 min	0	0.15	PCA	0
8	F	29	Smoker	> 5	Visual	✓	24 hs	0	19.1	MCA-PCA	0
9	M	25	No	> 5	Visual	X	4 hs	1	0.732	MCA-PCA	0
10	F	50	No	> 5	Visual	✓	1.30 hs	0	3.293	PCA	0
<b>Median</b>	-	<b>28.5</b>	-	-	-	-	<b>9.4</b>	-	<b>0.575</b>	-	<b>0</b>



**Images 1-4**

Brain MRI shows punctiform right occipital restrictive image in diffusion sequences (1 a-b: patient 7). Cortical left occipital restrictive image with embolic resemblance (2 a-b: patient 10). Subcortical left frontal restrictive image (3 a-b: patient 2). Cortical right parieto temporal restrictive image (4a-b: patient 8)

## Conclusion

We observed MI in young patients with low prevalence of common stroke risk factors. Unlike previous reports that showed higher incidence of MI during the first year of MwA, all of our patients declared an evolution of 5 years or longer at diagnosis. We found no differences in territory prevalence. After discharge, all patients initiated preventive migraine treatment, with no neurological deficit and no recurrence of MI (last follow up June 2020)

CV: Cardiovascular, MRI: magnetic resonance imaging, MCA: medial cerebral artery, PCA: posterior cerebral artery, ICA: internal carotid artery