



## Diagnostic challenges in sporadic hemiplegic migraine: a case report

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### Case presentation

Female, 62 years old, history previous of hypertension and multiple cavernomatosis, admitted to our service emergency room with hypothesis of stroke. The patient presented headache associated with nausea and phosphenes in the right eye, with evolution for right hemiplegia. However, she showed complete and spontaneous reversal of symptoms, in a few minutes. The patient presented similar symptoms with annual recurrence since 2019, always following migraine attack. She denied familiar history of migraine. Brain MRI showed multiple cavernomatosis, with no signs of old or recent ischemia. Brain and cervical CT angiography and laboratorial tests were normal. She was then diagnosed with sporadic hemiplegic migraine, with no family report of the disease. She received treatment with amitriptyline 50 mg per day, without further recurrences.

### Discussion

Hemiplegic migraine (HM) is a rare form of migraine with motor aura, which includes fully reversible motor weakness. The aura of HM is most probably caused by cortical spreading depression, a self-propagating wave of neuronal and glial depolarization that spreads across the cerebral cortex. Patients who are the first member of their family to have hemiplegic migraine are classified as having sporadic hemiplegic migraine. Some cases of sporadic hemiplegic migraine are caused by one of the genetic variants that cause familial hemiplegic migraine. The treatment of HM is empirical and mainly relies on principles of management of the common types of migraine, except for triptans use, medication historically contraindicated because of vasoconstrictor properties.

### Final comments

Hemiplegic migraine is an important differential diagnosis with stroke in patients with migraine. Correct recognition of this condition can be a crucial factor in the treatment and prognosis of the patient in the emergency room.

**Keywords:** Hemiplegic migraine, Motor aura, Stroke mimics.