▪ Headache Medicine 2026, Supplement ▪ p-ISSN 2178-7468, e-ISSN 2763-6178

Headache Medicine

ID: 152

Migraine as a differential diagnosis of CADASIL in young individuals

Wagner Gonçalves Horta[1], Mauro Souza Horta[2], Mariana Adelle da Rocha Santos[3], Daniel Rodrigues Lemos Neto[1]

[1]University of Pernambuco, Recife, Pernambuco, Brazil
[2]São Lourenço Clinic, São Lourenço, Minas Gerais, Brazil
[3]Pernambuco College of Health Sciences, Recife, Pernambuco, Brazil

Wagner Gonçalves Horta
wghorta@gmail.com

Introduction
The most prevalent hereditary cerebral angiopathy is autosomal dominant cerebral arteriopathy with subcortical infarcts and leukoencephalopathy, known worldwide as CADASIL. This disease is caused by a mutation in the NOTCH3 gene on chromosome 19, which encodes a protein whose main function is to maintain vascular structural and functional stability. There are no universally accepted diagnostic criteria for CADASIL, as the presenting symptoms, age of onset, and disease progression are variable. Although cerebrovascular lesions are the most frequent clinical manifestations, migraine is the manifestation that begins earliest, and may already be present in early adolescence.

Objective
To identify migraine as an initial symptom of CADASIL.

Methods
Patients diagnosed with CADASIL.

Results
The proportion of migraine in patients with CADASIL is 5 times higher than in the general population. The first symptoms usually occur before the age of 20, with the average age of onset being 30 years, and in women, symptoms occur earlier than in men. Migraine precedes other symptoms by many years, and MRI images may still be normal, leading to delays and diagnostic errors. The relationship between migraine and CADASIL can be explained by the identification of genetic anomalies occurring on chromosome 19, the same chromosome as familial hemiplegic migraine. The characteristic of CADASIL migraine is the presence of aura symptoms, with visual symptoms being the most prevalent, followed by sensory, aphasic, and motor symptoms. Some individuals present with atypical auras. A possible mechanism for the increased prevalence of aura in patients with CADASIL is increased susceptibility to cortical spreading depression. The precipitating factors for migraine with aura are similar to those in the general population.

Conclusion
Migraine, especially if accompanied by aura, can be an initial symptom of CADASIL disease and should be considered as a differential diagnosis, particularly in younger individuals.

Keywords:
Migraine
Headache
CADASIL

© Copyright 2025