



## Editorial

# State-of-the-art in the acute and preventive treatments of migraine from children to adults - a Special Collection

Marcelo Moraes Valença 

Federal University of Pernambuco, Recife, Pernambuco, Brazil



mmvalenca@yahoo.com.br

### Edited by:

Juliana Ramos de Andrade

Pain is a companion of human beings and is part of a system of protection and alarm of possible failures or risks to the organism's normal functioning. In some situations, there is a failure in this system, and pain arises inappropriately, causing great suffering. This occurs in cases of primary headaches, particularly when we consider migraine.

In this Special Collection of articles directed to address the treatment of migraineurs from childhood to adult life, we will address different aspects of preventive and abortive treatment when dealing with an individual who suffers from migraine; particularly worrying is dealing with patients with chronic migraine, medication-overuse headache, or the association of these two conditions.

Raimundo Pereira Silva-Néto and coworkers, in a didactic and complete way, bring us everything necessary in practice for preventive and abortive treatment of migraine with traditional drugs, including beta-blockers, tricyclic antidepressants, antagonists or calcium channel blockers, and anticonvulsant neuromodulators. A comparative analysis of the effectiveness and adverse effects is also made. These authors reviewed the substances used for the acute treatment of migraine attacks, from simple analgesics (dipyron and paracetamol), non-steroidal anti-inflammatory drugs (NSAIDs), triptans, and ergotamine to the new drugs that are emerging for the treatment of migraine attacks - ditans and gepants.

Abouch Krymchantowski and colleagues broadly commented on migraine treatment with biological therapies, analyzing data from different studies of episodic and chronic migraines concerning the preventive treatment using anti-CGRP monoclonal antibodies (mAbs). They also comment on onabotulinum toxin A (Botox) for chronic migraine.

Through a narrative review, Carla C. Jevoux and associates present insights, recent knowledge, and guidance regarding the approach and treatments for patients with co-occurring disorders of chronic migraine and medication-overuse headache. The types of overused acute medications are extensively commented on. Traditional risk factors for medication-overuse headache are mentioned as well. An interesting statement about bio-behavioral and personality disorders in patients with medication-overuse headache is discussed since comorbid psychiatric disorders are more prevailing in medication-overuse headache than in control headache conditions and may precede the onset of medication-overuse headache. The authors advise that medication-overuse headache is a preventable disorder and emphasize that since patients may overuse prescribed medications, the initiative should focus on educating physicians and patients about the importance of imposing limits on prescription and intake of symptomatic medication.

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Jevoux and coworkers discussed well the importance of withdrawal from overused drugs and detailed several nonpharmacologic therapies, such as counseling and education, relaxation techniques, aerobic exercise, cognitive behavioral therapy, and biofeedback. Among them psychological and behavioral therapies (cognitive behavioral therapy, biofeedback, relaxation therapy, stress management, and meditation techniques such as mindfulness). Neuromodulation (transcutaneous supraorbital stimulation, transcutaneous electrical vagus nerve stimulation, invasive electrical stimulation of the occipital nerves, and transcranial magnetic stimulation) is also a tool that can be used as an adjunctive treatment in these difficult-to-treat patients. For patients with comorbidities or relapse after initially successful medication withdrawal, Jevoux and colleagues recommend that multimodal approaches should be utilized, involving physicians, psychologists, and physical therapists in an individual or group setting over several sessions. They agreed that preventive treatment with available drugs of proven efficacy is limited in chronic migraine prophylaxis; among them stand out onabotulinumtoxin A, topiramate, and mAb. They concluded that it is frequently recommended rational combinations. Still, they always considered costs, independence from professionals, health plans, and the overload of bureaucratic requirements, initiating with two or three agents, such as a tricyclic antidepressant plus a neuromodulator and possibly a mAb, specifically for those with a history of failures in detoxification, or not responding to monotherapy. The authors consider it a practical suggestion that in patients with chronic migraines not overusing symptomatic medications, a trial with a beta-blocker and a tricyclic antidepressant would rate better than either in isolation. Yet, a less expensive treatment scheme with Botox, like the "follow the sutures"

approach or using a mAb in subjects who do not tolerate traditional oral agents and never reasonably respond to previous treatment attempts, may be valid alternatives. Renato Arruda and Marco Antônio Arruda fully address the treatment of migraine in children and adolescents. They comment in a formidable way on several aspects that must be remembered when dealing with a child with migraine, especially the non-pharmacological ones. They also report data on all drugs used in treating these children and adolescents, including doses. Indeed, the article will serve as a "practical manual" that should be followed by everyone who deals with headaches in this age group.

## References

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