

MEETING ABSTRACTS

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INVITED SPEAKER PRESENTATIONS

A1

Kynurenine pathway metabolites in migraine

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Kynurenine pathway (KP), the quantitatively main branch of tryptophan metabolism, has long been considered a source of nicotinamide adenine dinucleotide, although several of its products, the so-called kynurenines, are endowed with the capacity to activate glutamate receptors, thus potentially influencing a large group of functions in the central nervous system (CNS). In fact, Kynurenic Acid and Quinolinic Acid are able to interact with ionotropic glutamate receptors and Cinnabarinic Acid has been reported as an orthosteric agonist of metabotropic glutamate receptors (mGlu4), and Xanthurenic Acid has been recently demonstrated to be a putative agonist of metabotropic glutamate receptors 2/3 (mGlu2/3). Moreover, 3-HK and 3-HANA have mainly been studied, since they have been shown to induce neurotoxic effects by increasing oxidative stress and the production of free radicals or through excitotoxicity. Migraine has a complex pathophysiology in which both central and peripheral components of the trigeminal pain pathway play a central role. The trigemino-vascular activation during the attack has largely been described, and recently the brainstem nuclei, called "migraine generators", have been reported to be involved in migraine. Moreover, a series of destabilizing events within the brain trigger a cortical spreading depression (CSD), responsible for the aura phenomena and for trigeminal activation. The role of glutamate is heavily supported both in the trigemino-vascular as well as in brainstem nuclei activation, and furthermore in the CSD initiation and propagation. Some of the KP metabolites able to interact both with ionotropic and metabotropic glutamate receptors might be involved in migraine pathophysiology. Despite the large number of studies conducted on migraine etiology, the KP has only been recently linked to this disease. Nonetheless, some evidence suggests an intriguing role for some kynurenines, and an exploratory study on the serum kynurenine levels has been helpful to better understand possible alterations of the kynurenine pathway in patients suffering from migraine.

A2

Disability, ICF biopsychosocial model and burden of migraine

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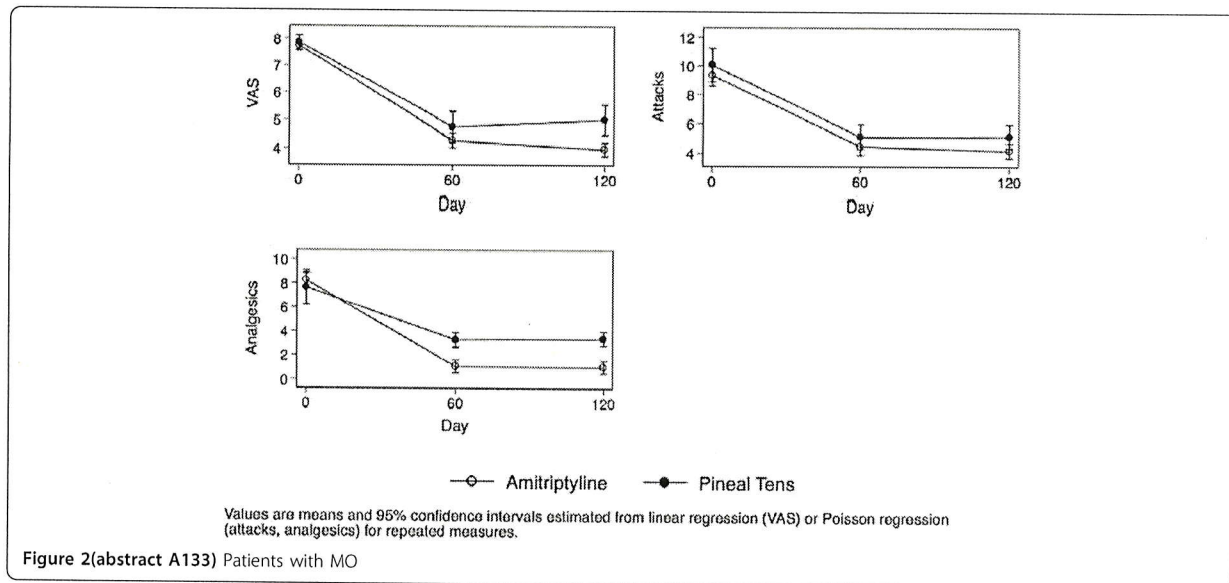
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When defining the burden of migraine it is important to consider patients' disability and clinical and public health perspectives. Migraine sufferers often have severe under recognized and underdiagnosed health burden and reductions in social activities and work capacity. Health professionals focus on diagnosis as a key element to effective treatments, however the majority of clinicians still tend to perceive migraine, and headache disorders in general, as minor complaints. Ten years ago a possible way to increase awareness and diminish the burden was described[1]. However epidemiological data of headache disorders, despite the international Lifting the Burden Campaign, is still scarce in many parts of the world and inconsistent because of the sampling frames and of how prevalence rates are defined and the physical, emotional, social and economic burdens of headaches are still poorly acknowledged. Uncertainty about the prevalence distribution reflects that there is still need of instruments for classifying migraine in a comparable manner across populations and that more studies must be undertaken to classify the disability due to the disorder using reliable outcome measures[2]. Estimation of needs for health services, their costs and effectiveness require indicators that go beyond measures of death rates or of diagnosis alone, and include the "functioning" of people. The biopsychosocial model of the WHO Classification of Functioning, Disability and Health (ICF) provides the model, as well as the classification system, that allows to measure all dimensions of functioning and disability[3]. More than ten years of research with ICF in migraine sufferers shows that it allows data comparability and the evaluation of the role of environment. According to ICF construct any health condition, in an unfavourable environment, can cause disability. Environmental barriers for migraine sufferers are lack of health care facilities, of accurate diagnosis, of drugs, but also difficulty in being taken seriously. Steiner[4] drew attention to the high number of people with disability due to headache who do not receive health care. The barriers responsible for this might vary throughout the world, but poor awareness of headache in a context of limited resources generally was still constantly among them. Describing and accounting the burden of migraine worldwide is not enough anymore, we need to change our paradigm again and to move towards new pathways. The opportunity is provided by the biopsychosocial approach of the ICF. To reduce the burden of millions of migraine and headache sufferers once we cannot change the disease, we should change the environment and global efforts should focus on the new development of drugs but mainly on improving the response of health care systems.

Conflict of interests: The authors certify that there is no actual or potential conflict of interest in relation to this article.

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A134

O006. Efficacy of prophylactic therapy in chronic primary headache with use of biofeedback

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Introduction: Retrospective study of patients with chronic tension headache (CTH) and chronic migraine (CM).

Objective: To compare the efficacy of biofeedback (BFB) compared to only prophylactic therapy in these primary headaches [1-4].

Materials and methods: We evaluated a total of 8 patients with CTH and 8 patients with CM. All patients had a history of primary headache and had never undergone prophylactic therapy. The observation period lasted 90 days. Four CTH patients and 4 CM patients underwent only prophylactic therapy (amitriptyline 20 mg daily), the remaining 4 CTH and 4 CM prophylactic therapy and BFB training sessions. Assessment tools outcome measures were:

- Headache diary to assess days per month with headache;
- Analgesic consumption and/or triptans;
- Score of the visual analogue pain scale (VAS);
- SEMG parameter for patients who carried out BFB training.

Results: At the end of the 90 day observational period there was a significant improvement (reduction in headache days per month, in VAS score, in analgesic consumption and in SEMG parameter) in CTH and CM patients that had undergone both BFB training and prophylactic therapy

when compared to the group of patients treated only with prophylactic therapy drug.

Discussion and conclusions: The overall data confirmed the efficacy of the BFB training in the prophylaxis of primary headaches, further supporting the benefits already possible with the therapy of only pharmacological prophylaxis (Table 1). The data also showed a clear dominance of efficacy, especially in the forms of chronic tension headache (Table 2).

Written informed consent to publication was obtained from the patient(s).

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POSTER PRESENTATIONS

A135

P067. Multimodal therapy in the management of MOH: a 3-year experience

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Table 1(abstract A134) Overall differences between the two groups after 90 days of therapy

	Frequency	VAS	Analgesic consumption	Triptan consumption	SEMG
CTH	-58%	-37%	-62%		
CTH BFB	-75%	-67%	-86%		-54%
CM	-53%	-34%	-60%	-50%	
CM BFB	-61%	-43%	-75%	-63%	-54%