

Preventive Treatment of Migraine: Which Drugs to Choose. Own Experience

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Abstract

Migraine prophylaxis is a demonstrated viable therapeutic option, providing positive results through the use of drugs, more and more safe and effective. These drugs are anticonvulsant, antidepressant, calcium channel blockers, beta blockers, making a notable contribution according to studies reported in the literature. But they also have side effects, usually less than their efficacy. In this study we report our series of migraineurs with and without aura, treated with prophylactic drugs. In the study we used the drugs of first choice and we used VAS scale to assess pain intensity, checking patients for 8 months, with good results, in some cases excellent. Data from literature show that these new nutraceutical substances, besides to those already in use, are utilized successfully, opening new therapeutic perspectives. Do not resort to symptomatic drugs, it is very important, being rich in adverse, potentially harmful effects, so migraine prophylaxis remains a useful instrument of defense in these patients.

Keywords: Migraine prophylaxis; Calcium channel blocker; Antidepressant; Valproate; Topiramate

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Introduction

The prophylactic treatment of migraine is still a matter for discussion, as to the choice of appropriate medication, as regards the drug to be used, taking into account the effectiveness and adverse effects, which make the prophylaxis a tailored process to each migraine patient [1]. A number of drugs have been used over time, including antidepressants such as amitriptyline, anticonvulsant such as valproate and topiramate, calcium channel blockers such as flunarizine, beta blockers. The results are variable, in terms of effectiveness, according to studies reported in the literature, demonstrating the efficacy and safety of anti-migraine prophylactic drugs in some subjects, less in others. In our study, we report a case series of 200 patients with migraine, including 180 without aura and 20 with aura, 160 females and 40 males. We used sodium valproate, topiramate, beta blockers and flunarizine, experiencing good results, in some cases excellent, with little or no adverse effects. In a high percentage of cases the effectiveness of the pharmacological prophylaxis migraine therapy was demonstrated.

Materials and Methods

The cases cover 200 migraine patients, 180 without aura and 20

with aura, 160 females and 40 males, aged 22-51 years, mean 36.5, observed at the Neurophysiopathology Unit of Catanzaro University Hospital, in a period of about 10 years. All patients had a family history of migraine, used painkillers and/or triptans, no one had practiced prophylactic therapy of migraine, with no benefit for pain and reduced quality of life, referring improvement in pain only during the attack. Causes of secondary headache have been excluded by neuroimaging and ultrasound examinations for vascular disorders. Prophylactic therapy was set, by administering the following drugs: valproate, topiramate, flunarizine, beta blockers, each for a group of 50 patients. IHS guidelines were observed for pharmacologic doses and associated comorbidities. It was considered greater inclusion criterion the rate of more than 2-3 attacks per month with worsening in quality of life.

Therefore, drugs were administered according to the following scheme: metoprolol 100 mg daily oral dose, sodium valproate 600

mg daily oral dose, topiramate 100 mg daily oral dose, flunarizine 10 mg daily oral dose. In addition, each patient was subjected to the VAS (Visual Analogic Scale), an algometric test which allows the subject to locate on a colored bar numbered from 0 to 10 pain intensity. The patients were monitored for a period of 8 months. The results were as follows: 25 of the 50 patients treated with metoprolol suspended therapy, for the appearance of marked bradycardia; 13 of the remaining subjects, after the first month of therapy, reported a slight improvement on pain (VAS9), 12 did not report any improvement.

After the second month of therapy, 13 to 25 reported further improvement (VAS 6), while 12 slightly (VAS 9), in the following months control all 25 patients reported stabilization of pain (VAS 5), frequency attacks 1 every 2 months. At successive controls, the clinical picture did not change. The administration of valproate gave the following results: an oral dose of 600 mg per day, after a month, causing a slight improvement in pain (VAS 8), but after the second month, the improvement was greater (VAS 5), until the eighth month, further improvement (VAS 4), frequency attack, 1 every 3 months. Topiramate was administered at a 100 mg daily oral dose, with the following results: already after the first month, significant improvement in pain (VAS 5), further after the second month (VAS 4). At the eighth month, VAS 2, frequency attack, 1 every 4-5 months. Flunarizine at a dose of 10 mg daily was administered, showing the following results: after the first month, significant improvement in pain (VAS 4), further after second month (VAS 2), subsequently progressive improvement, at eighth month VAS 0, absence of attacks. None of the used drugs caused adverse effects, except some slight sedation in the early days of treatment by topiramate and valproate.

Discussion

Primary migraine headaches usually affect one half of the head, presenting pulsatile pain, nausea, vomiting, phonophobia, photophobia, lasting 24-72 hours. 10-15% people have a progressive course [2]. Migraine headache is divided into migraine without aura, previously described as common migraine, and migraine with aura, mostly characterized by visual disturbance, before onset of pain. Migraine without aura is more frequent than

migraine aura, 80% versus 20% [3]. Pathophysiology of migraine, at present, involves neurovascular mechanisms regarding cortical spreading depression and activation of trigeminal-vascular system [4,5]. A problem relating to migraine is its chronic course, influencing quality of life of these subjects. So, it is necessary to find an effective therapy, even being safe, about adverse effects. Drugs used in migraine are symptomatic, pain relievers and triptans, helpful during attack phase, but not in chronic course. Therefore, migraine prophylaxis is very important, including several drugs, used in other diseases, such calcium channel blockers, antiepileptic drugs, betablockers, antidepressant drugs and others [6]. Preventive treatment is recommended more than 2 days a week to those patients who do not tolerate medications for acute attack, following the IHS criteria [7]. Migraine prophylaxis is effective if frequency and intensity of migraine attacks is reduced by at least 50%. According to data, the drugs of choice, deemed useful in the preventive treatment of migraine, are now fully entered successfully in the various protocols. On the other hand adverse effects, sometimes mild, sometimes severe, are also known. Most studies recognize the validity of migraine drugs [6]. Recently, some studies have suggested prophylaxis nutraceutical substances such as endogenous lipids, with interesting results, opening new therapeutic perspectives [8,9]. Our study highlights the efficacy and safety of prophylactic drugs used. The results obtained from the tested drugs, firstly flunarizine, proved to be the most effective.

Conclusion

Migraine prophylaxis is a key measure to prevent migraine headaches, showing that prophylactic drugs are effective and safe. Our study deals with the literature data on the effectiveness of the treatment of the migraine. Calcium channel blockers, beta blockers, topiramate, valproate are all drugs considered in the first choice. In our study we have found the effectiveness and safety of these drugs, noting that beta blockers are effective but with significant adverse effects in approximately 50% of treated patients, good results from valproate and topiramate, excellent from flunarizine. At present, migraine prophylaxis remains the type of treatment to follow, able to give relief to these patients.

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