



Treatment for Migraine in Neurological Patients

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Introduction

Migraine is considered the third most disabling disease in the world and, with it, acts to decrease the quality of life of many people. It can be classified, according to its frequency of occurrence, into episodic (MS) and chronic (CM). Existing treatments for migraine or migraine can be both pharmacological and non-pharmacological (involving changes in lifestyle habits). In addition, there are already drugs used for prophylactic treatment, especially in the adult population where there is no placebo effect typical of the pediatric population.

Objectives

To present a synthesis of existing pharmacological treatments for migraine in neurological patients. This was done via a critical and up-to-date analysis of the existing data in the literature.

Methods

This is an integrative literature review, searching for articles published between 2018 and 2023 in the PubMed and Science direct databases, using the DeCS/MeSH descriptors "Nervous System Diseases", "Headache Disorders", "Drug Therapy". 2463 articles were found, according to the inclusion criteria used, these being works in Portuguese and English. Of the total, 20 articles were analyzed, of which 8 were chosen to compose this work.

Results

The pathogenesis of migraine is important to understand the mechanisms of treatment. It can involve 4 phases. In the first phase, the appearance of non-painful symptoms occurs. These symptoms may include yawning, mood swings, difficulty concentrating, neck stiffness, fatigue, and thirst. The aura phase is a temporary state of neurological dysfunction that may or may not occur and predominates in women. The headache phase itself is caused by the activation of the trigeminal sensory pathways that generate the typical throbbing of migraine. The intensity of the headache may increase progressively or is explosive (acute). At this stage, the pain is usually associated with nausea and vomiting. Finally, in the postdrome phase, there is tiredness, drowsiness, difficulty concentrating and hypersensitivity to noise. Migraine treatments are primarily aimed at decreasing the intensity and duration of attacks. After the analysis of the studies, it was verified that the non-specific acute treatment for migraine, which can control the aura and pain phases, is carried out with the use of acetaminophen and non-steroidal anti-inflammatory drugs, such as Acetylsalicylic Acid and Ibuprofen. Acetaminophen is less effective, but it is recommended in cases of pregnant women and pediatric patients, and lower intensity attacks. In the acute treatment, it is recommended to use tryptophans (such as Sumatriptan, Rizatriptan, Zolmitriptan), which act by reversing steps of activation of the trigeminovascular pathway. The use of Ergot Alkaloids is also done, such as Dihydroergotamine, a selective agonist of 5-HT_{1D} receptors. In recent years, new groups of drugs have been approved for use in acute specific treatment: 5HT_{1F} receptor agonists, such as Lasmiditan, and gepants, such as Ubrogepant and Rimegepant. Prophylactic treatment aims to make it easier to be controlled by acute treatment. The drugs used in prophylaxis can be: antidepressants, antiepileptics and antihypertensives. Propranolol is an example of an antihypertensive used, it is the drug that has more evidence of effectiveness for prophylaxis. It is noteworthy that many approvals for the treatment of migraine have been given to repurposed drugs that were initially approved for other indications, that is, many pharmacological treatments are off label.

Conclusion

To conclude, there is a variety of migraine treatments available. In addition, it is perceived that drugs for the pharmacological treatment of migraine are a heterogeneous group of therapeutic agents characterized by several mechanisms of action. In addition, it is noted that these drugs remain in constant evolution, with the emergence of new groups of drugs that can help, even more, in raising the quality of life of the patient.

Keywords: Nervous System Diseases; Headache Disorders; Drug Therapy.