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Pharmacological Management of Acute Migraine: A Systematic Review Comparing NSAIDs, Triptans, Gepants, and Opioids

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Abstract Background. Migraine is a complex neurobiological disorder associated with the activation of the trigeminovascular system. Many new publications about new drugs appear, but not all of them assign the drug to the most appropriate group of patients. **Materials and Methods.** We used PubMed to search for studies published between 2016 and 2026. We searched meta-analyses, original clinical trials, and clinical guidelines. Studies were assessed for efficacy and side effects of individual therapeutic substances.

Aim: The aim is to compare pharmacological methods used in the acute treatment of migraine attacks (NSAIDs, triptans, ditans, gepants, and opioids), with a particular emphasis on safety profiles and target patient populations.

Results: Modern NSAID formulations optimize absorption speed and treatment tolerability. Triptans are the gold standard, but their bothersome side effects frequently lead to therapy discontinuation. An effective alternative for patients with cardiovascular contraindications or insufficient response to triptans (TIR) are new drugs -- ditans (lasmiditan) and gepants (e.g. ubrogepant). Lasmiditan demonstrates high efficacy, although, unfortunately, it causes central nervous system symptoms (including dizziness). Gepants, which block the CGRP receptor, offer a favorable tolerability profile and consequently result in high patient satisfaction. Furthermore, the review outlines the issue of opioid use in the pediatric population and emergency departments, bringing out its lack of effectiveness and the associated risk of pain chronification. **Conclusions.** New drug classes, such as gepants and ditans, are changing migraine management by bypassing the vascular component and

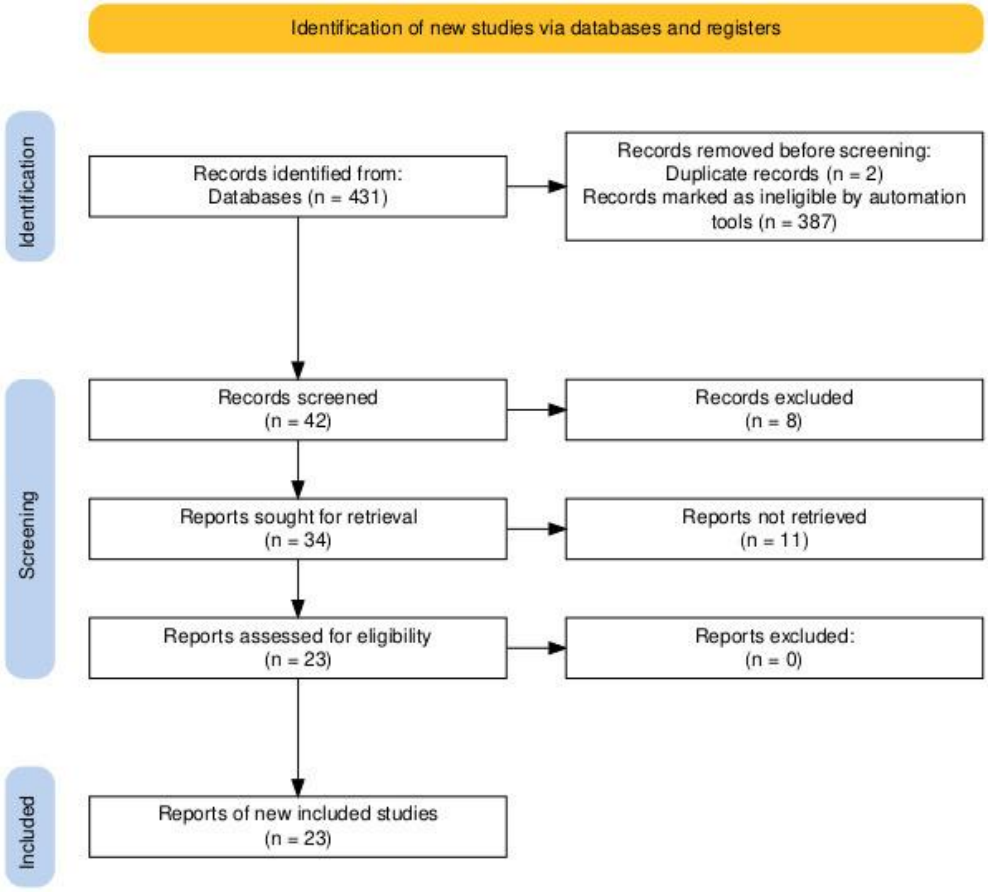
enabling better therapy personalization. **Keywords.** migraine disorders, acute treatment, abortive therapy

1. Introduction

Migraine is a complex neurobiological disorder whose pathophysiology is based on impaired activation of the trigeminovascular system. One element of this process is, for instance, the release of calcitonin gene-related peptide (CGRP). This peptide induces vasodilation of the meningeal vessels, plasma protein extravasation, and sensitization of pain neurons 17. Understanding this and many other mechanisms allows for a transition from symptomatic treatment to targeted therapy. Historically, first-line therapy was based on non-steroidal anti-inflammatory drugs (NSAIDs). Their target point is the inhibition of cyclooxygenase (COX). Currently, modern formulations are used, such as celecoxib oral solution (DFN-15), which allow for the maximization of the speed of action while decreasing possible side effects. Due to this pharmaceutical form, DFN-15 exhibits faster absorption and the achievement of therapeutic concentrations, which translates into high efficacy (32.7% pain freedom after 2h) while simultaneously reducing gastrointestinal adverse effects 19. The introduction of triptans in the 1990s revolutionized migraine treatment. Triptans have their target point at the 5-HT1B/1D receptors. Their action involves inhibiting the release of neuropeptides and direct vasoconstriction 9. It is this latter mechanism, although effective, that constitutes the main limitation to using drugs from this group. Triptans do not act selectively on cerebral vessels and are therefore contraindicated in patients struggling with cardiovascular diseases (CAD, prior strokes). Furthermore, they can cause bothersome adverse symptoms, such as chest tightness or paresthesia. Their occurrence is associated with the fact that as many as 51.8% of patients discontinue triptan therapy 4. Modern pharmacotherapy must focus on selective neuronal modulation to bypass this vascular component. Lasmiditan targets the 5-HT1F receptor, which is not present in blood vessels, eliminating the risk of vasoconstriction 16. Lasmiditan has a rapid onset of action (30--60 min). But the high lipophilicity and ease of crossing the blood-brain barrier of this substance can cause neurological symptoms such as dizziness 12,15. Gepants (e.g., ubrogepant) act by directly blocking the CGRP receptor, as mentioned earlier. Gepants have significantly fewer adverse side effects than lasmiditan. They are the preferred option for patients who, on the one hand, cannot use triptans (or have an inadequate response to them) and, on the other hand, do not tolerate the side effects associated with lasmiditan 2,17. In the context of evaluating the efficacy of modern therapies, such as gepants or innovative forms of NSAIDs, increasing importance is attributed to achieving freedom from the so-called MBS (Most Bothersome

Symptom), which is the symptom accompanying the migraine that is most distressing to the patient (e.g., photophobia, phonophobia, or nausea). Clinical studies prove that preparations such as ubrogepant or celecoxib oral solution (DFN-15) allow for a statistically significant resolution of MBS within 2 hours of administration 17,19. The aim of this study is to summarize the latest advances in neurology regarding the pharmacotherapy of migraine attacks. The review focuses on assigning patients to target groups for treatment with a given medication, taking into account side effects, contraindications, and drug potency and pharmacokinetics.

2. **Review methods** This review was based on the available PubMed database. We searched for studies on the treatment of migraine headache episodes that addressed topics such as the use of medications in specific patient groups or the comparison of substances among themselves, for example, in terms of potency. We considered studies from the last 10 years, specifically studies published between January 2016 and March 2026. We focused on identifying studies concerning migraine in which researchers analyzed pharmacological methods for aborting migraine attacks. For this purpose, we analyzed studies with particular attention to safety profile, target patient group, contraindications, and adverse effects. The keywords used in the search were „migraine disorders", „acute treatment", „abortive therapy", „gepants", „triptans", „NSAIDs", and „opioids". The inclusion criteria comprised only full-text articles published in English, conducted in humans between 2016 and 2026, with the main focus of the study being the analysis of a therapeutic substance or its comparison with other substances. The exclusion criteria involved studies without full-text online access and those whose scope differed from the topic analyzed in our review. We included original clinical studies, meta-analyses, and guidelines (Table 1, Table 2, Table 3). First, we applied the automatic filtering methods available in our database, and subsequently manually screened articles that met our criteria. We also considered the possibility of duplicate records within the databases. The process of selecting studies for review is presented in the PRISMA flow diagram. (Figure 1).



Source: https://www.prisma-statement.org/prisma-2020-flow-diagram

Figure 1. (PRISMA flow diagram)

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Table 1. Table 1.

Author, Year	Study group and size (N)	Compared/Tested substances	Main conclusions
Ashina et al., 2025	Adults with migraine (4–14 days/month) in whom triptans are contraindicated or ineffective (N=177)	Rimegepant 75 mg vs Placebo	Pain freedom at 2h: Rimegepant 21.4% vs placebo 8.4% (OR: 3.1; 95% CI: 1.3–7.5; p=0.011). MBS freedom at 2h: 41.7% vs 22.5% (OR: 2.5; 95% CI: 1.3–4.8; p=0.005).

Author, Year	Study group and size (N)	Compared/Tested substances	Main conclusions
Tepper et al., 2025	(N=19 818)	Rimegepant 75 mg vs Oral Triptans	Rimegepant 75.8% vs Triptans 48.2%. Risk of treatment discontinuation 65% lower for rimegepant (OR: 0.35; 95% CI 0.33–0.37).
Iannone et al. „GAINER", 2025	General population (N=164)	Rimegepant 75 mg	Efficacy in 2 hours: Pain reduction by ≥50% in 52.4% of patients. Reduction in the mean number of migraine days (MMD) by 2.7 days/month ($p<0.001$) after 3 months of on-demand use only.
Croop et al., 2024	Analysis of substance safety in healthy individuals (N=1806)	Rimegepant 75 mg	Adverse events occurred in <2% of subjects. No hepatotoxicity was observed – ALT/AST >3xULN in <1%, a level equivalent to placebo. The study confirmed the high safety of rimegepant.
Ailani et al., 2025	Patients with a history of ≥2 triptan failures (N=1806)	Rimegepant 75 mg	Significant improvement in the MSQ v2.1 quality of life scale. Efficacy and benefits are consistent regardless of prior response to triptans.
Bertz et al., 2023	Analysis of substance safety in healthy individuals (N=176)	Rimegepant (25-1500 mg) vs Placebo	No clinically significant effect on blood pressure and heart rate, even at 20 times the therapeutic dose.
Komori et al., 2024	Migraine patients (N=445)	Lasmiditan (doses 50 mg, 100 mg, 200 mg)	47% of patients remained on the 100 mg dose throughout the study. The 100 mg group experienced the greatest improvement on the PGIC-MHC scale

Author, Year	Study group and size (N)	Compared/Tested substances	Main conclusions
			(56.5% vs. 33.4%-52.2% in the other groups). The incidence of adverse events decreased with subsequent doses. The 100 mg dose proved optimal for satisfaction.
Reuter et al., 2022	Triptan Inadequate Responder (TIR) Patients (N=633) (from a total sample of 1471)	Lasmiditan (100 mg, 200 mg) vs placebo	Lasmiditan was more effective than placebo in the TIR population in pain relief at 2 hours – for 100 mg the OR was 3.3, and for 200 mg the OR was 3.6. The efficacy of lasmiditan was independent of the patient's previous response to triptan therapy.
Lipton et al., 2026	Migraine Buddy app users switching from a triptan to a new medication (N=211) (100 switched to a triptan, 111 to ubrogepant)	Ubrogepant vs other oral triptan	Users switching to ubrogepant were significantly more likely to report satisfaction with pain relief (69.4% vs 42.0%, OR=3.22) and MBS (69.4% vs 42.0%, OR=3.10) than those switching to another triptan. 75.7% of patients on ubrogepant preferred it over their previous triptan.
Lipton et al., 2020	Adults with migraine (N=567)	DFN-15 (celcoxib oral solution 120 mg, 25 mg/mL) vs placebo	DFN-15 was significantly more effective in reducing pain at 2 hours (35.6% vs 21.7%, $p<0.001$, OR=2.00) and in achieving MBS relief (57.8% vs 44.8%, $p=0.007$, OR=1.68). Adverse events were reported in 13.3% of DFN-15 patients and 8.9% of placebo patients (most common: dysgeusia in 4.2% and nausea in 3.2% for DFN-

Author, Year	Study group and size (N)	Compared/Tested substances	Main conclusions
			15).
Munjal et al., 2017	Migraine patients (N=167)	DFN-02 (intranasal sumatriptan 10 mg + DDM penetration promoter 0.2%)	The drug was safe and tolerable in long-term use. The most common adverse events were injection site pain (30.5%) and taste disturbance (21%). The early discontinuation rate was 22.5%.

Source: A table prepared especially for the review purposes

Table 2.

Author, Year	Program names / data sources	Group characteristics / Analysis type and sample size (N)	Compared/Tested substances	Main conclusions
Puledda et al., 2023	SAMURAI, SPARTAN, CENTURION, Study 302, Study 303, ACHIEVE I & II	Network meta-analysis (NMA), adults with migraine (N=12,859)	Lasmiditan (50/100/200), Rimegepant (75), Ubrogepant (50/100)	Highest efficacy (Pain Freedom 2h): Lasmiditan 200 mg (OR: 2.88; 95% CI: 2.39–3.47). Fewest side effects: Rimegepant 75 mg (OR: 1.01).
Laohapiboolrattana et al., 2024	Data from RCTs on Triptan-	Network meta-analysis (NMA) of triptan-	Lasmiditan, Rimegepant, Ubrogepant	Highest effectiveness (Pain Freedom 2h): Lasmiditan 200 mg

	Insufficient Responders (TIR) patients	resistant patients		ranks 1st (SUCRA: 0.9). MBS elimination ranking: Rimegepant 75 mg ranks 1st (SUCRA: 0.7).
Knievel et al., 2020	SAMURAI & SPARTAN (Integrated Analysis)	Migraine patients stratified by history of response to triptans (N=3,905)	Lasmiditan 50, 100, 200 mg vs Placebo	Lasmiditan 200 mg achieved Pain Freedom 2h in 28.5% of patients vs 15.1% of placebo ($p<0.01$). The efficacy of lasmiditan is independent of prior triptan use.
Polavieja et al., 2022	Phase II-IV clinical trials for ditans and gepants	Network meta-analysis (NMA) focused on drug speed of action	Lasmiditan vs Rimegepant vs Ubrogepant	Lasmiditan 200 mg shows statistical superiority over rimegepant and ubrogepant in pain relief already at 30 and 60 minutes (OR for lasmiditan vs. gepant ranges between 1.6 and 1.8).
Khoo et al., 2024	26 RCTs on Menstrual Migraine (MM)	Women with MM	Triptans, Lasmiditan	Sumatriptan and Lasmiditan are most effective in MM (OR: 4.62 for pain freedom).

Karlsson et al., 2024	Systematic review and network meta-analysis (NMA)	Adults with migraine, total n=89,445	17 oral active substances (triptans, ditans, gepants, NSAIDs, antipyretics) vs placebo	Eletriptan (40 mg) was the most effective drug in achieving 2-hour pain freedom (OR 1.46 to 3.01 versus other drugs). Eletriptan, rizatriptan, sumatriptan, and zolmitriptan had the best efficacy-tolerability ratio.
Blumenfeld et al., 2021	Post hoc analysis of pooled data from two phase 3 studies (ACHIEVE I and II)	Adult migraine patients: triptan responders (N=682), triptan inadequate responders (TIR) (N=451), and triptan naive (N=666)	Ubrogepant 50 mg vs placebo	Ubrogepant demonstrated efficacy and good tolerability regardless of prior triptan use. In the TIR group, 15% of patients on ubrogepant achieved pain freedom after 2 hours compared to 6% on placebo (p=0.011).

Source: A table prepared especially for the review purposes

Table 3.

Author, Year	Group characteristics / Analysis type and sample size (N)	Main conclusions

Young et al., 2017	Adults in Emergency Departments (ER) N=1222	On average, 35.8% of visits resulted in the administration of an opioid. In community hospitals, this figure rose to 68.6%. Opioid-dependent patients were more likely to require rescue medication (36.0% vs. 25.1%) and had a 30% longer ED stay.
Seng et al., 2019	Pediatrics (children and adolescents 6–17 years old), data from health systems (EHR), 38,926 patients / 1,617 physicians	Only 41.5% of children receive treatment consistent with guidelines. 15.6% of children receive opioids or barbiturates as first-line medications. An ED visit increases the risk of receiving an opioid (OR: 0.78).
Ornello et al., 2021	Systematic review and meta-analysis	Opioid use is associated with a lower Pain Freedom rate compared to migraine medications and a significantly higher risk of pain recurrence and transformation into chronic migraine.
Oskoui et al., 2019	AAN/AHS Guidelines for the Treatment of Migraine in Children and Adolescents	Ibuprofen (Level A) and intranasal triptans (for adolescents) are standard. Strongly discourage the use of opioids due to lack of efficacy and the risk of chronicity.
Robblee et al., 2020	Analysis of emergency department protocols	He points to gepants and ditans as an alternative to opioids in emergency departments, due to their vascular safety and lack of risk of abuse.

Source: A table prepared especially for the review purposes

3. Results and Discussion:

3.1. First-Line Therapy. Triptans are the gold standard for migraine treatment. They are the first-line therapy for the majority of the population without cardiovascular contraindications.25 The most effective oral medication currently available for migraine pain management is eletriptan (40 mg). Eletriptan demonstrated higher efficacy among all primary endpoints, including an Odds Ratio (OR = 1.46) for 2-hour pain freedom compared to the

previously standard sumatriptan (100 mg). Furthermore, eletriptan's potency in offering sustained (24-hour) pain relief was also high, with an OR of 1.63 compared to sumatriptan. Eletriptan (40 mg) has the highest SUCRA (Surface Under the Cumulative Ranking) scores among the tested substances. This shows that it is the most effective drug 9. Eletriptan has also been shown to be more potent than gepants and ditans. Which are achieving odds ratios (ORs) ranging from 0.6 to 0.9 compared to eletriptan 9. However, the clinical utility of triptans is often limited by adverse effects, such as chest tightness, paresthesia, and dizziness (which may be related to the effect of triptans on 5-HT1B/1D serotonin receptors, as triptans exhibit vasoconstrictive properties) 24,25. For this reason, as many as 51.8% of patients discontinue triptan therapy within approximately one year of initiating treatment 4. In such cases, it is necessary to identify alternatives. Specifically, the next step is to determine which medications should be taken by patients who, for whatever reason, discontinue triptans. In such patients, oral celecoxib solution (DFN-15), administered at a dose of 120 mg, may be effective as it has proven to be a fast-acting alternative to triptans 24. In clinical trials, DFN-15 achieved 2-hour pain relief in 32.7% of patients, compared to only 18.2% in the placebo group ($p < 0.001$) 19. It is worth noting that the most bothersome symptom (MBS) also resolved within 2 hours of celecoxib solution administration in 58.1% of patients 19. The liquid form of DFN-15 is absorbed more quickly than traditional solid NSAIDs, maximizing the likelihood of successful pain relief. The use of a selective cyclooxygenase-2 (COX-2) inhibitor reduces the incidence of gastrointestinal side effects. This makes celecoxib a good first-line treatment for patients who do not require or cannot tolerate triptans, even despite their higher efficacy.

3.2. Second-Line Therapy. Second-line treatments are usually ditans and gepants. They are used in patients who, due to side effects or an inadequate clinical response, are not good candidates for triptans. A specific example of a drug that we should consider next is lasmiditan. The CENTURION study showed that regardless of whether the patient had previously used triptans, the effectiveness of lasmiditan is high. In TIR patients, the use of lasmiditan at doses of 200mg and 100mg was associated with significantly higher efficacy in achieving 2-hour pain relief than the placebo group. The odds ratio values are as follows: OR = 3.6 for the 200 mg dose and OR = 3.3 for the 100 mg dose 16. The highest SUCRA value (0.9) in the TIR patient population was achieved by lasmiditan at a dose of 200 mg 8. Despite its high efficacy and relatively rapid onset of action---typically within 30 to 60 minutes 15 - it is associated (similarly to triptans) with bothersome treatment-emergent adverse events (TEAEs). In this case, however, they involve the central nervous system

(CNS), as lasmiditan easily crosses the blood-brain barrier. Long-term analyses indicate dizziness as the most common adverse effect occurring during treatment. However, observations optimistically suggest that their frequency tends to decrease with subsequent doses of the medication 12. Gepants, such as ubrogepant, represent a vital alternative for TIR patients, particularly those for whom a favorable tolerability profile (low incidence of side effects) is a priority. Analysis of the ACHIEVE I and II trials showed that ubrogepant at a dose of 50mg was more effective than placebo in patients with a history of insufficient triptan response, permitting 2-hour pain freedom in 15,3% of patients compared to 6,1% in the placebo group ($p = 0.011$) 17. The clinical benefits of ubrogepant are further confirmed by real-world long-term data from the UNIVERSE II study. An interesting study was conducted to assess satisfaction with switching from a triptan to another medication. The first group, whose participants switched from a triptan to another triptan, reported lower satisfaction with the switch than the second group, whose triptan switched to ubrogepant. In the first group, the satisfaction level after switching to another triptan was 42%, while in the second group, the satisfaction rate was 69.4% (OR = 3.22). Due to the lower number of side effects associated with ubrogepant compared to triptans and its overall better tolerability, 75.7% of patients preferred ubrogepant 2.

3.3 Special Patient Groups.

3.3.1 Patients with Cardiovascular Risk. Caution should be exercised in patients with a history of cardiovascular events, ischemic stroke, or uncontrolled hypertension. In this group, traditional triptans are strictly contraindicated due to their vasoconstrictive effects on, among others, coronary and cerebral arteries, primarily mediated through the 5-HT1B receptor 13. For these patients, gepants---specifically rimegepant and ubrogepant---have become the preferred first-line therapy because they do not exhibit vasoconstrictive properties. This is particularly important because up to 20% of patients requiring treatment for acute migraine have cardiovascular risk 27. As previously mentioned, one of the medications safe for use in this group of patients is rimegepant at a dose of 75 mg. Trials have been conducted to determine safety of rimegepant. It has not demonstrated a statistically significant effect on heart rate or blood pressure (mean changes < 1.0 mmHg). Furthermore, even supratherapeutic doses up to 300 mg did not increase the risk 13. In the same study, the incidence of cardiovascular adverse events for rimegepant was comparable to placebo (< 2%) 13. Furthermore, rimegepant administered prophylactically every other day reduces the number of monthly migraine days (MMD) by an average of 2.7 days, compared to a 1.2-day reduction in the placebo group---allowing it to be classified among medications with preventive action 7.

Ubrogepant at doses of 50 mg and 100 mg provided 2-hour pain relief in approximately 19--21% of patients, which markedly outperformed placebo 7.

3.3.2 Menstruating Patients. In the late postovulatory phase of the menstrual cycle, estrogen levels physiologically decline. This may likely trigger migraine attacks in patients with chronic migraines. Migraines occurring during this phase of the menstrual cycle are characterized by more severe pain, longer duration, and a high risk of recurrence. 6,10,26. The drugs considered best for aborting menstrual migraine (MM) attacks caused by hormonal changes are sumatriptan and lasmiditan 10. Of these two substances, sumatriptan is considered the more effective. For patients suffering from both menstrual migraine and the previously mentioned cardiovascular diseases, lasmiditan is the better choice. 10,13. It would be remiss not to mention the prevention of migraine attacks in patients experiencing predictable MM. A highly effective drug that can be used for preventive purposes is Frovatriptan (of course, one should remember the limitations related to the contraindications to the use of triptans mentioned earlier) 6. The preventive effect of frovatriptan is due to its relatively long half-life of up to 26 hours. Thanks to these properties, frovatriptan maintains its therapeutic concentration in the blood during the period of increased risk of MM 6,26. Frovatriptan is administered at a dose of 2.5 mg twice daily. Pharmacotherapy begins two days before the expected onset of menstruation and is then continued for five to seven days 6.

3.3.3 Pediatric Patients. In the pediatric population, the primary therapeutic goal is to give priority to safety. Despite clear clinical guidelines, opioids and barbiturates are still inappropriately prescribed in approximately 15.6% of childhood migraine cases 21. The use of these substances is strongly discouraged, as they are not only ineffective in treating the underlying pathophysiological mechanism of migraine but also notably increase the risk of the disease transforming into a chronic form. First-line pharmacological treatment in children should consist of administering ibuprofen at a weight-based dose of 10 mg/kg. This treatment has provided strong scientific data supporting its ability to achieve 2-hour pain freedom in children and adolescents 20. The timing of NSAID administration is necessary: to maximize the probability of success, rapid intervention is necessary, with the drug administered at the very onset of the migraine attack. For patients who do not respond to NSAIDs or those experiencing more severe attacks, triptans are the next step, particularly in nasal spray formulations. Nasal sprays, such as sumatriptan (5--20 mg) or zolmitriptan (5 mg), are especially effective in this patient group, as pediatric migraines are often accompanied by severe nausea, abdominal pain, or even vomiting, which can lead to the premature removal of

oral medication formulations 20. Furthermore, for children aged 12--17, the combination of sumatriptan and naproxen sodium has been recognized as a highly effective option 20.

3.4. Acute Treatment of Severe Migraine Pain in the Emergency Department Current practice in many emergency departments is, unfortunately, inconsistent with the latest scientific developments due to the excessive use of opioids. Evidence suggests that opioids are associated with a 30% longer hospital stay and a 36% recurrence rate, compared to 25% for migraine-specific therapies 22. Prochlorperazine is a dopaminergic receptor antagonist. It is a relatively old drug that can be used for its antiemetic properties, but also for terminating migraine attacks. According to the updated guidelines of the American Headache Society (AHS), the appropriate first-line treatment in the emergency department should be intravenous prochlorperazine or a greater occipital nerve block (GONB) with lidocaine/bupivacaine - both methods received the highest strength of recommendation (Level A) 1. The use of intravenous hydromorphone is strongly discouraged due to its lack of effectiveness in treating migraine and the high risk of disease chronification 1. **4. Conclusions** Modern treatment of migraine attacks requires a careful review of the patient's medical history and elimination of contraindications to specific drug classes. Treatment and side effects should also be monitored, and adjustments should be made to pharmacotherapy if they occur. Eletriptan (40 mg) remains the gold standard for oral medications, generally in terms of both the duration and persistence of the analgesic response. For individuals with gastrointestinal hypersensitivity, Celecoxib (DFN-15) is an alternative. In cases of insufficient response to triptans, Lasmiditan (200 mg) offers the highest efficacy, although it requires monitoring for CNS side effects. Gepants (Rimegepant, Ubrogepant) is safe for patients with cardiovascular contraindications. For the acute treatment of severe menstrual migraine, the most effective options are Sumatriptan and Lasmiditan, with the latter representing a safe alternative for patients with cardiovascular contraindications. Furthermore, short-term prophylaxis with oral Frovatriptan is a highly recommended strategy due to its exceptionally long half-life. Therapy in children and adolescents should be based solely on Ibuprofen and intranasal triptans (Sumatriptan, Zolmitriptan). The use of opioids and barbiturates in this age group is strictly prohibited. Effective migraine attack termination in emergency departments should focus on the use of Prochlorperazine and greater occipital nerve blocks (GONB). The use of opioids, such as Hydromorphone, is a therapeutic option that prolongs hospitalization, increases the risk of relapses, and promotes chronicity of the disease. *Research Gaps and Future Directions* Current knowledge about migraine and the available range of medications allows for the treatment of migraine recurrences with relatively good results. However, it is

worth continuing further research to deepen our knowledge and discover increasingly better medications. There are areas whose exploration would allow for better therapy selection for individual patients. It is important to search for biomarkers whose identification would lead to a more personalized selection of therapeutic agents. It also seems important to conduct further research in the pediatric population, e.g., on the optimal dosage of gepants or determining the safety profiles of available drugs.

Disclosure

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