

Treatment of acute migraine attacks

Migraine Foundation Aotearoa New Zealand

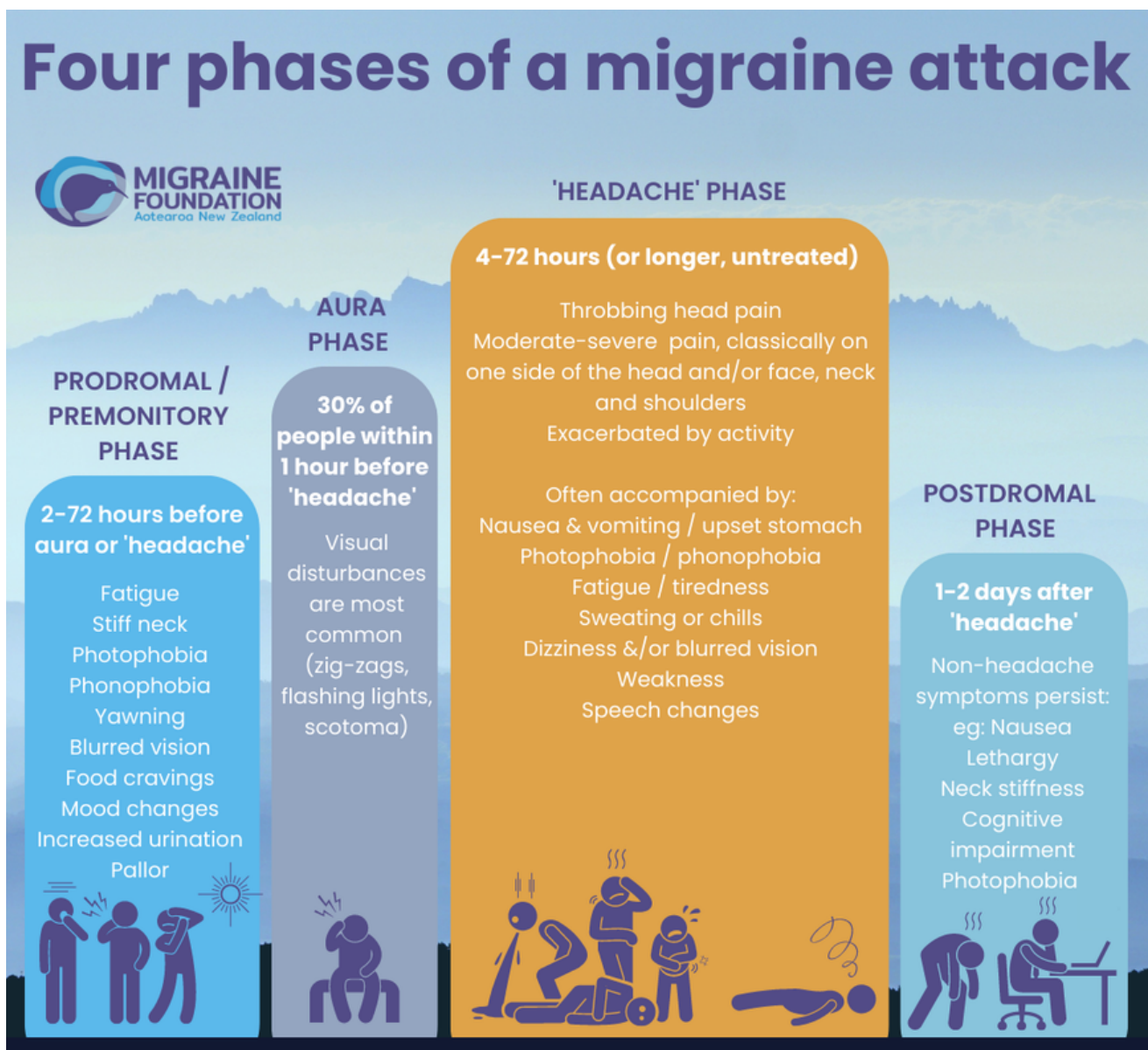
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Acute treatment of migraine attacks

Migraine is a genetic neurological disorder, characterised by acute attacks that usually include headache and other symptoms. Migraine attacks occur in four phases (see figure below).

Migraine is commonly under-treated and mis-treated, with relatively low use of migraine-specific treatments for attacks (triptans) and use of inappropriate treatments (opioids). Suboptimal treatment of acute attacks can lead to chronic migraine (headache on 15 days or more per month, with at least 8 of these typical of migraine).



Treatment options for acute migraine attacks

Opioids (e.g. codeine, tramadol) are not recommended as they may exacerbate gastroparesis and have a significant risk of addiction.

Medication options

Simple analgesics

- Aspirin 600–1000mg
- Ibuprofen 400–600mg
- Diclofenac 25-50mg
- Naproxen 250mg
- Paracetamol 1000mg¹

Triptans²

- Rizatriptan 10mg (max 20mg in 24 hours)
- Sumatriptan 50–100mg (max 300mg in 24 hours)
- Sumatriptan subcutaneous injection 6mg (max 12mg in 24 hours)

Antiemetics³

- Domperidone 10mg
- Prochlorperazine 10mg (oral) or 3mg (buccal)
- Metoclopramide 10mg
- Ondansetron 8mg

Medication for patients with severe nausea and vomiting

- Sumatriptan subcutaneous injection (orodispersible rizatriptan may be tolerated)
- Diclofenac suppositories
- Buccal prochlorperazine (or orodispersible ondansetron)

Non-medication options

- Neuromodulation devices (external trigeminal nerve stimulation devices available in New Zealand)
- Occipital nerve blocks (injection of the greater occipital nerve with local anaesthetic)⁴

1. Paracetamol can be appropriate for women who are pregnant or breastfeeding or if NSAIDs are contraindicated, but is not a first-line monotherapy for migraine due to lower efficacy.

2. Triptans are contraindicated in ischemic heart disease, peripheral vascular disease and uncontrolled hypertension.

3. In general, dopamine antagonists are recommended because they improve gastric motility and counter the gastroparesis associated with migraine attacks.

4. Pain relief may last several weeks.

Optimising treatment effectiveness

- Use triptans for moderate-severe attacks and when attacks do not respond adequately to non-steroidal anti-inflammatory drugs (NSAIDs).
- Take medications within 30 minutes of the headache phase. Triptans are not as effective if taken during the aura phase. Treatments are considered effective if symptoms reduce within 2 hours after administration and patients can resume normal activities.
- Take anti-emetics with analgesic medications for nausea and vomiting and to help absorption of pain medications.
- If treatment is ineffective after at least two trials, review reasons for treatment failure (e.g. taking too low a dose, taking too late within an attack, route of administration not optimal) before trying a different medication. Triptans have slightly different mechanisms of action so if one triptan is not effective, try another.
- If treatment is ineffective after two hours, repeating the dose (for that attack) is unlikely to work and an alternative or combination treatment should be considered. If the treatment initially worked and the migraine recurs within 48 hours, another dose can be taken.
- Combining an NSAID with a triptan can be successful for people who do not find sufficient relief with either agent alone.

Migraine triggers

In migraine disease, the brain over-reacts to environmental and homeostatic changes, e.g. from weather, hormones (causing menstrual migraine), lack of/too much sleep, dehydration, fasting/skipped meals, stress, strenuous exercise. Avoiding migraine triggers and exacerbating factors can reduce the number and impact of attacks.

Advise patients to maintain regular sleeping and eating patterns, engage in graded exercise and stress management activities. Moderate aerobic exercise can be helpful in preventing migraine and alleviating stress. The evidence for dietary interventions is limited although a healthy diet, avoiding highly processed and sugary food, and maintaining a healthy weight is recommended.

Some foods commonly perceived to trigger migraine attacks, such as chocolate, have not been found to cause attacks in experimental studies. Food cravings in the prodromal phase may explain much of the association of specific foods with attacks. However, alcohol and caffeine can trigger attacks and may best be avoided (or limit coffee to two cups a day).

Medication overuse

Frequent use of acute migraine treatments can lead to chronic migraine and/or medication-induced headache. Patients are at risk of medication-induced headache if they have headache for 15 days or more a month and have used (for at least three months):

- Simple analgesics on ≥ 15 days a month (including combination analgesics and caffeine), or
- Opioids or triptans on ≥ 10 days a month.

Medication-induced headache can occur in patients with migraine even if they are taking analgesics for another condition (e.g. back pain or arthritis). Managing medication-induced headache requires the reduction or withdrawal of the acute treatment and/or initiation of preventive therapy. Calcitonin gene-related peptide (CGRP) monoclonal antibody medications can reduce the number of headaches in patients with migraine and medication-induced headache (galcanezumab and erenumab are available in New Zealand but not funded).

References

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