

HEADACHE

(2) NON-MIGRAINE HEADACHE

By Andrew J. Dowson, MB, BS, MRCP

This article looks at acute muscle contraction headache, "ice-cream" headache, chronic daily headache and cluster headache. Sinister headache is also considered

Headache is a common problem; approximately 70 per cent of people have on average, one headache every month but most people with headache will have a benign condition. Headaches may be divided into acute or chronic and intermittent or continuous.

The majority of the population who suffer headache will have an acute intermittent headache which will fall broadly into two major diagnostic categories: acute muscle contraction headache (MCH) and migraine headache. Other forms of acute headache do occur but are rare. In some people, short sharp intense pains can be triggered by cold and this condition has become known as "ice-cream" or "ice-pick" headache.

Patients with chronic headache are defined as those who suffer from headache on a daily or near daily basis. If the headache lasts for less than four hours, it is likely to fall into the category of cluster-type headache whereas, if the headache persists for more than four hours, the patient is more likely to be suffering from chronic daily headache (CDH) with or without analgesic dependence.

ACUTE MUSCLE CONTRACTION HEADACHE

Acute MCH (also known as acute tension headache) occurs in perhaps 50 per cent of the population on a monthly basis but it usually has low impact and is easily managed. It is therefore a relatively rare presentation to doctors, even at primary care level. A problem arises when patients who are actually suffering from migraine are misdiagnosed as having acute MCH and, therefore, do not receive appropriate management. Migraine is commonly diagnosed using the International Headache Society (IHS) classification and additional questioning relating to the disruption of normal activities and quality of life. The symptoms of acute MCH are the inverse of migraine and normal activities are much less affected (see Panel 1). Patients often describe the pain as a "feeling of tightness or squeezing".

PANEL 1: DIAGNOSTIC POINTERS FOR MIGRAINE AND ACUTE MCH¹**Migraine**

- 1 Attacks last from 4 to 72 hours
- 1 Headache is at least two of the following: unilateral; pulsating; of moderate to severe intensity; aggravated by routine activities
- 1 Accompanying symptoms may include photophobia, phonophobia and nausea, with or without vomiting
- 1 Patients are usually symptom-free between attacks

Acute MCH

- 1 May persist for longer periods than migraine
- 1 Headache is at least two of the following: bilateral; non-pulsating; of mild to moderate intensity; not aggravated by routine activities
- 1 Any features of sensory sensitivity (nausea, photophobia, phonophobia) are more likely to suggest migraine, not MCH



Management The cause of MCH is not known, although soft tissues are the most likely source of pain. Management of acute MCH tends to include the use of OTC analgesics such as aspirin, paracetamol or ibuprofen, as well as non-drug approaches such as relaxation, hot baths, massage etc. These treatments are usually effective and further intervention is rarely necessary.

"ICE-CREAM" / "ICE-PICK" HEADACHE

In a recent audit of the King's Headache Service,² it was identified that up to 5 per cent of those referred had "ice-cream" or "ice-pick" headache. Patients are often young to middle-aged adults and describe a short piercing pain which is severe and often said to be "like a flash of lightning". It lasts from seconds to minutes (usually 15 to 30 seconds), and can occur several times a day. Usually centred on one eye, patients often feel slightly bruised after the pain has cleared and sometimes there may be further episodes of the high intensity symptom. Some patients find cold foods trigger this pain. A clinical problem arises if the symptoms occur without any identifiable trigger and the patient suffers from multiple attacks on a daily basis.

Management Treatment for "ice-cream" headache includes reassurance that the attacks are not a result of sinister underlying disease and various prescription prophylactic agents can be tried. Acute therapies tend to be ineffective because, by the time the drug is taken, the pain has usually disappeared. However, non-steroidal anti-inflammatory drugs taken daily have been shown to be helpful. My own preference is to try one with a moderate risk of gastrointestinal side effects first, such as diclofenac modified release 100mg, but there is no doubt that the gold standard is still indomethacin in divided doses. The use of anti-epileptic agents, such as sodium valproate and tricyclic antidepressants can also be effective, although evidence for this is scant. It is possible for symptoms to last longer than the usual half minute and pain lasting for more than three minutes and diffusely affecting one side of the head is termed chronic paroxysmal hemicrania. This can be difficult to manage (tricyclic antidepressants being first line) and may require specialist intervention.

Dr Dowson is director of King's Headache Service, London

CHRONIC DAILY HEADACHE

In primary care, approximately 50 per cent of patients attending the surgery with headache as the major presenting symptom will have CDH and this condition also accounts for more than 50 per cent of patients seen in specialist headache centres.² CDH is a descriptive rather than a diagnostic term for a headache that occurs for more than four hours on more than 15 days in a month.³ CDH can occur at any age, having been reported in patients as young as 5 and those in their 80s.⁴ It is twice as common in men as in women. The persistence of symptoms can continue for many decades, although it is typical for patients to have suffered for up to five years before presenting to a specialist centre.²

Many different classifications have been used to describe CDH, including transformed migraine, medication misuse headache and hemicrania continua. This is of interest to the specialist but, in primary care, identifying the group as a whole is of clinical value. My own rule of thumb is to consider CDH as headache that is present on the majority of days, typically over a six-month period or longer, and characterised by a background of low grade muscle contraction-type symptoms, often with neck stiffness, superimposed with migraine-type symptoms. Figure 1 shows a profile of CDH.⁵ The balance between background symptoms and high grade migraine-type symptoms varies from patient to patient. At one extreme, patients will have constant low grade stiffness in the neck and shoulders with a migraine-type exacerbation only about once every two or three months. At the other extreme, patients will have migraine-type symptoms every single day.

Whatever theories there may be to account for the development of CDH, there seems to be two distinct groups of sufferers, those with analgesic dependence and those without. Migraine, or a difficult patch of acute high frequency headache, may prompt an increase in intake of analgesics. An analgesic will initially have some effect on a headache but, as it wears off, rebound occurs, encouraging the patient to take more. Essentially, the analgesic is fuelling the headache and analgesic dependence develops. This new headache pattern becomes far more disabling than straightforward migraine. Codeine is the most commonly implicated drug in the UK but it is known from work around the world that other analgesics can also cause problems. Risk factors appear to include not only a past history of migraine and high analgesic intake but also previous head and neck injuries.

A decade ago, the most resistant cases of medication misuse headache would have been found in patients taking regular ergotamine but these drugs are now rarely prescribed. It has been suggested recently that the condition may also be caused by the inappropriate use of triptan drugs (5-HT₁ agonists) and further data about triptan use in open studies over a period of six months would be valuable to assess the actual rate of headache upgrade. However, an informed look at existing data suggests that the upgrade rate is low and patients in studies are in any case CDH prone, especially because they average four migraine attacks per month. Some patients may even have been misdiagnosed with migraine, ie, they already have CDH. It could be that a triptan is being used effectively to treat the migraine-type symptoms within CDH but, because it does not break the cycle, a return of symptoms occurs and the patient merely takes the effective treatment again. Therefore, the triptans are not causing CDH but rather, it is the consequence of this headache which encourages their use. The debate around this topic continues but, in my opinion, if there is indeed such a condition as triptan-induced headache, it is uncommon.

Management The aim of management is to return patients to their original acute headache pattern and may involve three lines of attack:

- 1 Physical measures, such as physiotherapy to the neck
- 1 Avoidance of analgesics and ergotamine (breaking the cycle)
- 1 Use of effective regular medication

Many patients with CDH have restricted neck movement, sometimes because of a previous injury such as whiplash, and routine exercises can be tried at home, morning and evening, to relax the neck muscles. These include:

- 1 Putting the chin on the chest and slowly moving the head back to look at the ceiling, then returning to the normal position
- 1 Slowly tilting the head from side to side, putting the left ear and then the right ear on the equivalent shoulder
- 1 Slowly turning the head to look as far to the left as possible, then turning slowly through 180° to look as far to the right as possible
- 1 Hot and cold treatments to the neck muscles using an ice pack or hot water bottle both before and after the above exercises

It is extremely important to identify any element of analgesic dependence. The aim of treatment is to break the cycle but this can be quite difficult because of withdrawal symptoms. In extreme cases, hospital admission may be necessary. Panel 2 shows factors affecting success or failure in treating medication misuse CDH.

There are two commonly used groups of regular medication; tricyclic antidepressants (prothiaden, amitriptyline) and anti-epileptics (sodium valproate, gabapentin, topiramate). These were found by chance to be effective in patients with headache and are now accepted as good treatments. They would generally be introduced at a lower dose than those used for other conditions and gradually increased as necessary. There have also been reports of selective serotonin reuptake inhibitors being effective but more evidence is needed.

Although the use of the above formula of management restores most patients to episodic headache (50–75 per cent of sufferers return to their original headache type⁷), there is a high relapse rate unless continued support is given⁸ (in the long term, 40 per cent of patients show relapse within 5 years⁹). Management is clearly different from that required for straightforward migraine and it is therefore critical that CDH is not misdiagnosed. It should be borne in mind that approximately 2 per cent of the population may have CDH at any time and 4 per cent at some time in their lives — this is not a small problem.

CLUSTER HEADACHE

Cluster headache is a rare but excruciating syndrome which is more prevalent in men than women. The exact prevalence of cluster headache in the general population is unknown but it has been estimated to be around 0.24 per cent. Cluster headache is characterised by intermittent attacks of excruciatingly severe unilateral headache, accompanied by symptoms such as conjunctival injection (red eye), lacrimation, nasal congestion, rhinorrhoea, forehead and facial sweating, miosis (small pupil), ptosis (droopy eye lid) and eyelid oedema. The headache is sudden in onset, frequently occurs around the eyes and is often described as a boring sensation. Headaches last between 15 and 180 minutes (with an average duration of 45 minutes) and can occur from once every other day to eight times daily.¹

PANEL 2: PREDICTORS OF SUCCESS OR FAILURE IN WITHDRAWAL OF MISUSED MEDICATION FROM PATIENTS WITH MEDICATION MISUSE HEADACHE⁶

Patients more likely to be successfully withdrawn

- 1 Those with migraine as the primary headache
- 1 Those who have had daily headache for less than 5 years
- 1 Those misusing ergotamine or dihydroergotamine only

Patients predicted for failure

- 1 Those who lack insight into their condition or have little family support
- 1 Those who have had daily headaches for more than 5 years
- 1 Those who combine analgesic intake with benzodiazepines
- 1 Those who have tried to withdraw unsuccessfully in the past

There are two forms of cluster headache: episodic and chronic. Episodic cluster headache is more common (80–90 per cent of patients) and is characterised by periods of headache lasting from weeks to months, interspersed by months to years of remission. In contrast, the 10–20 per cent of patients who experience chronic cluster headache have symptoms for more than one year with pain-free periods of less than 14 days.

The mainstay of cluster headache management is prophylaxis; most experts suggest the introduction of drugs at the beginning of the first attack in a new cluster. The most commonly used treatment worldwide is verapamil (starting at 80mg *tds* and increasing to a maximum of 1g per day), although sodium valproate is popular in the UK (starting at 200mg *bd* and increasing to a maximum of 1.2g per day). The old fashioned combination of lithium and methysergide is less often used now. Gabapentin is another drug for which there is anecdotal evidence of great success. An interesting approach is to use a course of prednisolone, 30mg daily for 7 days, either to “buy” a good week for a patient or to cover the introduction of medication at the beginning of a cluster.

Prophylaxis aims to break up the pattern of symptoms, but it is also important to give patients some rescue medication. Since cluster headaches are of short duration, abortive treatment must be rapid in onset. Oxygen is effective in around 70 per cent of patients, usually providing relief within 5–10 minutes. However, the equipment needed renders this treatment impractical, especially if the attack occurs away from home. Codeine-containing drugs and ergotamine have also been used successfully. Intravenous dihydroergotamine is effective but the intranasal route of administration, which would be more convenient for patients, has been shown in one study to decrease pain intensity but not attack duration.¹⁰ In recent years, subcutaneous sumatriptan has been shown to be effective.¹¹ However, patients may require multiple doses to treat repeat headaches and the maximum recommended dose of two injections per day is often insufficient for those suffering high frequency attacks. To date, there have been no published controlled trials to assess the efficacy of oral triptans in the acute treatment of cluster headache.

SINISTER HEADACHE

Sinister headaches are quite rare, but a worry for patients and professionals is that a sinister cause for headache may be missed. The main question, therefore, is how sinister headache can be recognised. If the patient has noticed a change in the headache pattern, or perhaps it is the first or worst headache, then further close questioning is required. The major “red flag” is age. Three-quarters of migraine sufferers have had their first migraine by the age of 30 and it is increasingly uncommon for the first attack to occur as one becomes older. Age alone can, therefore, be an indicator for referral or investigation. Other reasons for suspicion include additional symptoms or signs, particularly in between headaches, and acute onset, especially when associated with vomiting (see Panel 3 for possible sinister causes and accompanying signs).

CONCLUSION

Although migraine has a high impact on the sufferer and affects a large number of the population, often on a monthly basis, the preva-

lence of acute MCH is far greater. The various other forms of headache are relatively uncommon. However, pharmacists should be aware of the possibility of CDH, with or without analgesic dependence, because this condition can be deeply disruptive. Cluster headache is rare but devastating when it does occur, sometimes known as “suicide headache”. Sinister headache is a cause for concern, but it is an extremely rare situation. Pharmacists do, nevertheless, need to be on their guard for “red flag” symptoms. With 96 per cent of the population suffering from headache at some time in life, the pharmacy is a likely port of call.

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PANEL 3: POSSIBLE SINISTER CAUSES OF HEADACHE AND ACCOMPANYING SIGNS

1. Meningitis should be suspected in a patient who presents with acute headache accompanied by a rash for the first time
1. Subarachnoid haemorrhage should be suspected in a patient presenting with acute headache associated with vomiting and photophobia for the first time
1. Cranial arteritis should be suspected in a patient presenting with headache associated with jaw pain, scalp tenderness, muscle tenderness and general malaise for the first time. This is an illness which particularly occurs in Caucasians over the age of 60 and in Afro-Caribbeans over the age of 50