Medication overuse headache

Medication overuse headache (MOH) develops and gets worse with frequent use of any medication treatment for headache or migraine. It is also known as 'rebound headache'. This information sheet from Great Ormond Street Hospital (GOSH) explains the causes, symptoms and treatment of medication overuse headache and where to get help.

What is medication overuse headache (MOH)?

Medication overuse headache (MOH) is a type of headache that develops and gets worse with frequent use of any medication treatment for pain in people who have tension-type headache or migraine. It is also known as rebound headache. It occurs for more than 15 days each month and can be very painful. It is a common cause of chronic daily headache, often without specific features, but can be a serious and disabling problem. Reports suggest it occurs in one to two per cent of the general population.

What causes MOH?

MOH occurs when a child or young person has been using painkiller medications for three months or more, leading to worsening chronic headaches. Certain medications such as triptans, opioids and ergots are known to be associated with MOH. The pain relief medications (including parcetamol or non-steroidal anti-inflammatory drugs such as ibuprofen) need to have been used alone or in any combination at least 10 days per month or more.

The underlying mechanism leading to this condition is still unknown. Lots of factors such as genetic predisposition or behavioural/environmental factors have been reported to trigger and maintain these headaches. Children with a predisposition to headaches are thought to have a great sensitivity to pain when they use medications frequently and this increases their tendency to MOH. According to the literature, the risk of developing MOH varies with different treatments:

- Highest with opioids and triptans
- Intermediate with paracetamol and aspirin
- Lowest with non-steroidal anti-inflammatory drugs such as ibuprofen

How do we treat MOH?

MOH is a treatable condition and requires that the child affected stops using the medications for the headache to resolve. Abrupt withdrawal of the drugs and starting preventative (prophylactic) therapy (ideally after one to two months from stopping medications) seems to be the best way forward according to clinical data. It is important to warn the child or young person and their parents that discontinuing overused medicines may at first lead to worsening of the headache and some withdrawal symptoms. However, it is important to persist, as symptoms will improve within two months of stopping all medications.

In some cases, more gradual reduction of the medication is necessary when physical dependence or a rebound effect occur. A long-acting analgesic/anti-inflammatory medicine, such as naproxen (500mg twice a day), can be used to ease headaches during the withdrawal

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period. Two months after the completion of medication withdrawal, people suffering from MOH typically notice a marked reduction in headache frequency and intensity.

What happens when the medications are stopped?

During medication withdrawal, there may be associated symptoms such as nausea, vomiting, low blood pressure, sleep disturbances, restlessness, anxiety, tummy upset, diarrhoea, and nervousness. These typically settle within seven days but may take up to three weeks to fully resolve. It is important to provide close follow up and support for the child or young person during the initial period of stopping all medications. The choice of prophylactic treatment will depend on the underlying primary headache disorder. If there is no improvement in the headaches after stopping the medications, then the diagnosis of MOH may need to be reconsidered.

How do we prevent MOH?

It is recommended that patients follow the 'two days a week' rule, in essence, not taking any of the painkillers or triptans for more than two days a week.

In general, any patient who has frequent headaches or migraine attacks should be considered as a potential candidate for preventive medications instead of being encouraged to take more and more painkillers or other rebound-causing medications. Preventive medications are taken on a daily basis. Some patients may require preventive medications for many years; others may require them for only a relatively short period of time such as six months. Many medications such as anticonvulsants, antidepressants, antihypertensives and antihistamines have been shown to be effective preventitive medications.

The headache clinic at GOSH

There is a headache clinic at GOSH, which aims to help children and young people when the diagnosis of headache is not certain and treatment has failed. Referrals need to be made by your local paediatrician to Dr Prabhakar – Consultant in Paediatric Neurology. We encourage family doctors (GPs) to make referrals via their local paediatric team. If you would like to know more about the headache clinic at GOSH, please http://www.gosh.nhs.uk/medical-information/clinical-specialties/neurology-information-parents-and-visitors/clinics-and-wards/headache-clinic or call us on 020 7405 9200 ext 0182.

Further information and support

The Migraine Trust offers support and advice to anyone affected by migraine or headaches. Call them on 020 7462 6602 or visit their website at www.migrainetrust.org. They offer specific information for children and young people.

Migraine Action also offers support and advice, and also has separate sections for children and young people. Their helpline number is 0116 275 8317 and their main website is as www.migraine.org.uk . The section for 8 to 10 year olds is at www.migraineadventure.org.uk, the section for 11 to 13 year olds at www.migraineexplorers.org.uk and the section for young people aged 14 to 17 years is at www.migrainenetwork.org.uk.

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