

*Perspective***Diagnosis of migraine and its prevention**

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Received: 22-Feb-2022, Manuscript No. IJMMS-22-62145; Editor assigned: 24-Feb-2022, PreQC No. IJMMS-22-62145 (PQ); Reviewed: 08-Mar-2022, QC No. IJMMS-22-62145; Revised: 14-Mar-2022, Manuscript No. IJMMS-22-62145 (R); Published: 24-Mar-2022

DESCRIPTION

Diabetes Migraine is a multifaceted neurovascular condition with a strong genetic component. Migraine (/miren/ in the UK, /ma-/ in the US) is a primary headache disorder characterised by recurrent moderate to severe headaches. The episodes usually affect one side of the head, are pulsating, and last anywhere from a few hours to three days. Nausea, vomiting, and sensitivity to light, sound, or smell are all possible side effects. Physical activity tends to aggravate the pain, though regular exercise may have preventative benefits. Up to one-third of those affected experience an aura, this is a brief period of visual disturbance that precedes the onset of a headache. Aura can occasionally occur with little or no headache, but this is not a common symptom (Goadsby, et al. 2017). Migraine is thought to be caused by a combination of genetic and environmental factors. Migraine impacts slightly more boys than girls before puberty and two to three times more women than men, so changing hormone levels could be a factor (Noseda, et al. 2013). Migraine risk is usually lower during pregnancy and after menopause. The underlying mechanisms aren't completely understood. However, the nerves and blood vessels of the brain are thought to be involved. For headaches, simple pain relievers such as ibuprofen and paracetamol (acetaminophen) are recommended, as well as nausea medication and avoidance of triggers. When simple pain relievers are ineffective, specific medications such as triptans or ergotamines may be used (Ferrari, et al. 2015). Caffeine is safe and effective in the treatment of acute migraine headaches when combined with other analgesics. Metoprolol, valproate, and topiramate are among the medications that can help prevent attacks. Migraine affects approximately 15% of the world's population (Messlinger, et al. 2011). It was ranked as the world's third most prevalent disorder in the 2010 Global Burden of Disease Study. It usually begins during puberty and peaks in middle age. It is one of the most common causes of disability as of 2016. The Ebers papyrus, written around 1500 BC in ancient Egypt, contains an early description of migraines

that is consistent with migraines (Levy, 2012).

Medication, nutritional supplements, lifestyle changes, and surgery are all options for migraine prevention. Those who have headaches more than twice a week, cannot tolerate the medications used to treat acute attacks, or have severe attacks that are difficult to control should consider prevention. Stopping smoking and reducing sleep-disrupting behaviours are among the recommended lifestyle changes (Burstein, et al. 2011). The goal is to reduce the frequency, severity, and duration of migraine attacks while also improving the efficacy of abortive therapy. Another reason for prevention is to avoid headaches caused by the overuse of medications. This is a common issue that can lead to a daily headache (Dodick, et al. 2018). Prevention and control of migraine medications are considered effective if they reduce migraine attacks by at least 50% in frequency or severity (Kramer, et al. 2016). Because few medications are approved specifically for the prevention of migraine headaches, many medications like beta-blockers, anticonvulsive agents like topiramate or sodium valproate, antidepressants like amitriptyline, and calcium channel blockers like flunarizine are used off label for migraine headache prevention. The anticonvulsants topiramate and Divalproex/sodium valproate, as well as the beta-blockers propranolol and metoprolol, have the highest level of evidence for first-line migraine prophylaxis in adults, according to most guidelines. In children, the best evidence is for propranolol and topiramate; however, evidence only supports a short-term benefit as of 2020.

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