Information on Migraine and MythBusters

Migraine is an inherited disorder of the brain in which the brain is hypersensitive to the changes in the environment, as well as, changes that occur within the body. **Changes in sleep, stress level, activity level, hormones, and any traumas or other medical conditions that the body is experiencing can be common triggers**. And triggers are usually partial and additive.

The foundation of migraine management is **lifestyle modifications**. Specific strategies to create a regular and predictable schedule and environment that can be helpful for migraine. It is imperative that the patient keep a regular sleep schedule and meal schedule. Studies show that 20 minutes of daily aerobic exercise can decrease migraine frequency and severity.

The term "migraine" refers to a COLLECTION of symptoms that can include head pain (moderate to severe), light or sound sensitivity, nausea, vomiting, cognitive slowing. About 20-30% of people with migraine have visual (seeing lights, shapes, colors and other positive visual phenomenon), sensory, or motor aura. When a person experiences a "migraine," he or she can be experiencing any combination of the above symptoms.

"Chronic" migraine means >3 months of >15 headache days/month, with >8 of those days being moderate to severe days with migrainous features

"Concussion": Most important thing for post concussive headache/syndrome to get better **is over time and avoiding repeat head injuries**. The foundation of post concussive headache management is **lifestyle modifications**. Specific strategies to create a regular and predictable schedule and environment that can be helpful for headaches. It is imperative that the patient keep a regular sleep schedule and regular meal schedule. **Gradually building up to 20 minutes of daily aerobic exercise,** such as stationary bikes or swimming. Emphasize on **pacing, taking breaks and focus on non-pharmacological therapy.**

"Vestibular Migraine": Patients are often referred to headache clinics because it is suspected that "vestibular migraine" is the cause of dizziness or disequilibrium. It is important to note that "vestibular migraine" is still considered a research diagnosis that is only found in the appendix of the International Classification of Headache Disorders.

From the International Classification of Headache Disorders III (ICHD III)

A1.6.5 Vestibular migraine

Previously used terms:
Migraine-associated vertigo/dizziness; migraine-related vestibulopathy; migrainous vertigo.

Diagnostic criteria:
A. At least 5 episodes fulfilling criteria C and D
B. A current or past history of 1.1 Migraine without aura or 1.2 Migraine with aura
C. Vestibular symptoms of moderate or severe intensity, lasting between 5 minutes and 72 hours.
D. At least 50% of episodes are associated with at least one of the following 3 migrainous features:

1. Headache with at least 2 of the following 4 characteristics:
    a) unilateral location

b) pulsating quality
c) moderate or severe intensity
d) aggravation by routine physical activity
2. Photophobia and phonophobia
3. Visual aura

E. Not better accounted for by another ICHD-3 diagnosis or by another vestibular disorder.

Whether or not the vertigo and the migraine are associated is unclear. If the treatment of the migraine helps the vertigo improve, then it is possible that the vertigo and migraine are associated.

Risk of strokes with migraine: with migraine with aura and oral contraceptives are only clinically relevant if:

- Oral contraceptive pills (OCPs) greater than 50ug estrogen.
- Age >35 **AND** Smoker

Review article: Calhoun, A. Hormonal Contraceptives and Migraine with Aura---Is There Still a Risk? Headache. 2017;57:184-193. PMID: 27774589

Unnecessary confusion still surrounds the use of combined hormonal contraceptives (CHCs) in the setting of migraine with aura (MwA). Clearing this confusion is a key issue for headache specialists, since most women with migraine have menstrual-related migraine (MRM), and some CHCs can prevent this particularly severe migraine. Their use, however, is still restricted by current guidelines due to concerns of increased stroke risk – concerns that originated over half a century ago in the era of high dose contraceptives. Yet studies consistently show that stroke risk is NOT INCREASED with today's very low dose CHCs containing 20-25 µg ethinyl estradiol (EE), and continuous ultra-low-dose formulations (10-15 µg EE) may even reduce aura frequency, thereby potentially decreasing stroke risk.

This article clarifies the stroke risk of CHCs and examines their impact on migraine. It also examines how stroke risk is altered by the estrogen content of the CHC, by contributing factors such as smoking, age and hypertension, and by aura frequency. And finally, it puts these risks into a meaningful context with a risk/benefit assessment.
Cannabis: We have limited evidence on cannabis for headache disorders, but we advised to use <10 days per month since we are unsure if it can contribute to medication overuse.

Risk of serotonin syndrome:
Risk is extremely low with concurrent use of SSRI/SNRI and triptans. They act at different serotonin receptors. Triptans act on 5HT1b/d/f predominantly.

Medication overuse headache:
Studies have shown that greater than 10-15 days of analgesic use each month can lead to medication overuse headaches.

Caffeine Use: Caffeine is a drug, and like many other drugs, it can cause problems when overused. -Caffeine can be useful when used infrequently but using it daily can lead to medication overuse headaches, which are also known as “rebound” headaches.
-Using more than 100 mg of caffeine (either in medicines or in beverages) daily (about the amount in one 8oz cup of coffee) is a known risk factor for developing daily headaches. The amount of caffeine in different brands and types of coffee varies widely, from 133mg of caffeine

in a large McDonald's brew to 415mg in a venti Starbucks. The same is true for different medicines. Consider using an online calculator
-Patients with daily headaches should consider avoiding caffeine completely.
-Limit use of caffeine containing medications to no more than 1-2 days a week.
-Reduce caffeine intake slowly, by 25% each week, to reduce caffeine withdrawal symptoms.
-Caffeine is usually not the only cause of frequent migraines, but reducing caffeine will often help improve headache.

Risk of dementia with migraine: Not increased risk **(Migraine Headache and Risk of Dementia in the Atherosclerosis Risk in Communities Neurocognitive Study - Headache 2020 May): Analysis include**d 12,495 White and African American participants ages 51-70 with a median follow-up time of 21 years. Prevalence of dementia was 18.5% (1821/9955) among those with no migraine history, 15.8% (196/1243) among those with severe non-migraine heading, and 16.7% (233/1397) among migraineurs. There was no association between migraine and incident dementia [hazard ratio: 1.04 (0.91, 1.20)]. There was also no statistically significant interaction between sex and migraine status on risk of dementia.

Opioids/Opiates - Medications to AVOID:
These medications can make migraines worse and should be avoided if possible.
* Opiates (hydrocodone-acetaminophen/norco or vicodin, oxycodone-acetaminophen/percocet, hydromorphone/dilaudid, morphine/MS contin and roxanol, meperidine/demerol, tramadol/ultram, fentanyl/duragesic, codeine-acetaminophen/tylenol #3)
* Butalbital containing products (Fioricet, Fiorinal, butalbital/caffeine, codeine)

Opioid use in chronic nonmalignant pain is controversial. Their use has been shown to actually be counterproductive in several chronic pain conditions and they are associated with hypogonadism (including sexual dysfunction), worsened mood, exacerbation of depression and/or anxiety, tolerance, diminished efficacy, osteoporosis, and opioid-induced hyperalgesia. There is a risk of opioid medications including risk of severe life-threatening respiratory depression when mixed with other sedatives, muscle relaxants, antihistamines, or alcohol. Last year there were nearly 10,000 deaths in the USA from prescription opioids. Patients should be aware of the risk of addiction and that the risk is particularly increased not only in patients with a higher history of addiction to alcohol or other drugs, but also those with psychological distress such as depression and anxiety. As such, we do not recommend the use of opiates in this patient chronically except for a short period for acute severe pain.