USANA Technical Bulletin

Migraine Headache

Description

- The International Headache Society devised a classification for migraine headaches in 1988 which distinguishes between headaches with aura (vision affected) and those without aura. Migraine headaches are intermittent and may vary in frequency from year to year, and therefore are difficult to measure.[1]

Causes

- The causes of migraines are unknown, but there may be a disturbance of intracranial and extracranial circulation. The disturbance in blood flow is believed to accompany the migraine attack and possibly cause it.

Types

- The classical migraine attack includes a visual aura, usually described as broken zigzag lines, blind spots, flashing lights or double vision, followed by a headache which may vary in severity but rarely lasting more than one hour. Such "full blown" attacks account for only ten percent of migraines, the remainder being migraine headaches with the absence of an aura.[1]

At Risk

- Women have a higher risk of having migraine headaches than men. Most studies list a 2-3 times greater prevalence in women compared to men in the 10-30 year age range.

Prevention and Management

- The goal of treatment of migraines is to reduce the frequency of attacks and to reduce the severity of the attacks when they occur. There is no known way to completely prevent migraines from occurring.
- There are several types of medications available to decrease symptoms.
- It has been suggested that food sensitivities may precipitate attacks. Frequent offenders are chocolate, cheese, wines, and foods with nitrites in them such as hot dogs and cured meats[2].
- High caffeine intakes are correlated with headache prevalence,[3] but withdrawal from caffeine increases migraine headaches in those who customarily drink large quantities[4].
- Magnesium supplements (600 mg) decreased migraine attacks.[5,6]
- Fish oils may decrease migraine attacks through their vasodilation effects,[7] though no clinical trials have looked at this.

Abstracts

McCarty MF. Magnesium taurate and fish oil for prevention of migraine. Med Hypotheses 1996; 47:461-6. Although the pathogenesis of migraine is still poorly understood, various clinical investigations, as well as consideration of the characteristic activities of the wide range of drugs known to reduce migraine incidence, suggest that such phenomena as neuronal hyperexcitation, cortical spreading depression, vasospasm, platelet activation and sympathetic hyperactivity often play a part in this syndrome. Increased tissue levels of taurine, as well as increased extracellular magnesium, could be expected to dampen neuronal hyperexcitation, counteract vasospasm, increase tolerance to focal hypoxia and stabilize platelets; taurine may also lessen sympathetic outflow. Thus it is reasonable to speculate that supplemental magnesium taurate will have preventive value in the treatment of migraine. Fish oil, owing to its platelet-stabilizing and antivasospastic actions, may also be useful in this regard, as suggested by a few clinical reports. Although many drugs have value for migraine prophylaxis, the two nutritional measures suggested here may have particular merit owing to the versatility of their actions, their safety and lack of side-effects and their long-term favorable impact on vascular health.

Peikert A, Wilimzig C, Kohne-Volland R. Prophylaxis of migraine with oral magnesium: results from a prospective, multi-center, placebo-controlled and double-blind randomized study. Cephalalgia 1996 Jun;16(4):257-63. In order to evaluate the prophylactic effect of oral magnesium, 81 patients aged 18-65 years with migraine according to the International Headache Society (IHS) criteria (mean attack frequency 3.6 per month) were examined. After a prospective baseline period of 4 weeks they received oral 600 mg (24 mmol) magnesium (trimagnesium dicitrate) daily for 12 weeks or placebo. In weeks 9-12 the attack frequency was reduced by 41.6% in the magnesium group and by 15.8% in the placebo group compared to the baseline ($p < 0.05$). The number of days with migraine and the drug consumption for symptomatic treatment per patient also decreased significantly in the magnesium group. Duration and intensity of the attacks and the drug consumption per attack also tended to decrease compared to placebo but failed to be significant. Adverse events were diarrhea (18.6%) and gastric irritation (4.7%). High-dose oral magnesium appears to be effective in migraine prophylaxis.

References

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[6] Mauskop A, Altura BM. Role of magnesium in the pathogenesis and treatment of migraines. Clin Neurosci. 1998;5(1):24-7. Review.

[7] McCarty MF. Magnesium taurate and fish oil for prevention of migraine. Med Hypotheses 1996;47:461-6.