

Migraine Update
July, 2005

Stephen S. Flitman, MD
Medical Director
21st Century Neurology
3100 North Third Ave Suite 100, Phoenix, Arizona 85013
(602) 265-6500
www.neurozone.org

Migraines are truly awful. If one has never had migraines, it is difficult to conceive of the pain and discomfort they entail. Migraine has been known since the dawn of civilization, with references in the Bible as well as early Roman medical texts. It has affected art through the centuries, as seen in the poetry and art of William Blake, the malady suffered by the family of Poe's House of Usher, and the dizzy scintillations of Gustav Klimt. It is only in the opening years of this new century that we have learned why migraines happen, as well as achieved a better understanding of how to diagnose and treat them.

- I. Types of headache
 - a. Migraine without aura (common)
 - b. Migraine with aura (classical)
 - c. Secondary headache (sinus, brain tumor, ICP, orgasmic, exertional)
 - d. Cluster headache

- II. Diagnostic workup
 - a. History
 - i. Frequency
 - ii. Location
 - iii. Prodrome
 - iv. Nausea and vomiting
 - v. Provocations
 1. Position
 2. Action
 3. Photophobia
 4. Phonophobia
 5. Osmophobia
 6. Food triggers
 - b. Physical examination
 - c. Neurological examination
 - d. CT or MRI
 - e. Blood work
 - f. Genetics
 - i. Episodic Ataxia, Type 2 (CACNA1A gene)
 - ii. Familial Hemiplegic Migraine (FHM1=CACNA1A, FHM2=ATP1A2)
 - iii. CADASIL (Notch-3)
 - iv. ATP1 gene may also be responsible for common migraine.

III. Abortive therapies

- a. NSAIDs
- b. Butalbital
- c. Dopamine antagonists
- d. Non-specific serotonergic vasoconstrictors
 - i. Isometheptene
 - ii. Ergots
- e. Triptans (specific serotonergic vasoconstrictors)
 - i. Imitrex (sumatriptan)
 - ii. Axert (almotriptan)
 - iii. Maxalt (rizatriptan)
 - iv. Zomig (zolmitriptan)
 - v. Amerge (naratriptan)
 - vi. Frova (frovatriptan)
- f. Adenosine antagonists (experimental)

IV. Preventive therapies

- a. Beta blockers
- b. Calcium channel blockers
- c. Tricyclic antidepressants
 - i. Nortriptyline
 - ii. Amitriptyline
 - iii. Doxepin
- d. Serotonin-Noradrenalin Reuptake Inhibitors
 - i. Effexor XR (Venlafaxine)
- e. Anticonvulsants
 - i. Topamax (Topiramate) – FDA approved for this use
 - ii. Depakote (Valproic acid) – FDA approved for this use
 - iii. Tegretol (Carbamazepine)
 - iv. Trileptal (Oxcarbazepine)
 - v. Zonegran (Zonisamide)
 - vi. Keppra (Levetiracetam)
- f. Miscellaneous
 - i. Seroquel (Quetiapine)
 - ii. Diamox (Acetazolamide)
 - iii. Frova (Frovatriptan)
 - iv. Aricept (Donepezil)