

headache and HIV

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Headaches are common in the general population. People with HIV may experience headaches at the time of seroconversion, while using medications to treat HIV or viral hepatitis, and in late-stage HIV disease with CD4 cell counts below 100 cells/mm³.

People with HIV who experience headaches are often concerned that an infection of the air sinuses or the brain has been overlooked. Like their HIV negative counterparts, individuals with HIV may also be concerned that allergy, vision problems, or cervical (neck) spine disease is the cause of their headaches.

With a careful medical history and exam, at times followed by an MRI brain scan, infection and tumors can be excluded as the cause. A CSF exam may be done to exclude infection or inflammation due to medications, such as pegylated interferon-alpha (Pegasys, Peg-Intron) for hepatitis C. After these likely causes have been excluded, the HIV positive person will generally be diagnosed with a vascular headache, especially the common migraine, as in the general population. Migraine refers to a severe recurring headache, typically on one side of the head, or more broadly defined as any severe headache associated with nausea or photophobia (abnormal sensitivity to light) and phonophobia (abnormal sensitivity to sound).

Headaches in people with HIV might have several origins. Migraine headaches are generally believed to arise from the dilation (expansion) of arteries in the brain and scalp and the release of nerve chemicals that cause pain. Some headaches may reflect chemical pathway dysfunction of the glial cells that support neurons. Michael Moskowitz, MD, of Harvard Medical School reports that when macrophages that line the blood vessels in the brain become activated or degranulate (release chemical messengers from vesicles called lysosomes), inflammation develops around the blood vessels, resulting in headaches. In HIV disease, macrophage dysfunction and activation are associated with abnormal levels of cytokines (hormones that coordinate and regulate immune response).

Headaches can be triggered by various conditions, including sleep irregularities, stress, tobacco smoke, bright light, noise, perfumes or odors, fasting, eating certain foods, or hormonal imbalances, such as excessive estrogen from birth control pills or due to metabolism of excessive testosterone supplements. Some people are likely to be genetically predisposed to migraines, and females are more likely to experience them than males.

Migraine treatments are divided into those used for preventing headaches and those used for stopping the headaches as they recur. People with HIV should consult with a clinician before taking any headache medication. Headache prevention therapies include blood pressure medications (calcium channel blockers, or beta blockers such as propranolol [Inderal]) and tricyclic antidepressants (such as amitriptyline [Elavil]). A combination of both blood pressure drugs and tricyclic antidepressants is more effective than either drug used alone. Other preventive medications include antiepileptic drugs, such as valproic acid (Depakote) or topiramate (Topamax). Topiramate may be preferred since it will not interfere with anti-HIV drugs that depend on liver metabolism. Side effects from topiramate may be reduced by taking the entire headache preventive dosage (100 mg) at night only. Vitamin B₂ (riboflavin) 400 mg per day is also reported to be effective in preventing headache.

Therapies that stop headaches as they recur include triptan drugs such as sumatriptan (Imitrex). Drugs known as ergot alkaloids, such as ergotamine tartrate (Ergomar) and dihydroergotamine (Migranal), should be avoided due to increased side effects with HAART. Over-the-counter analgesics (pain relievers), such as acetaminophen (e.g., Tylenol), aspirin, ibuprofen (e.g., Advil), and naproxen (e.g., Aleve), are helpful in stopping migraine headaches. However, overuse may lead to analgesic rebound headaches.

Smoking cessation, adequate sleep, acupuncture, and biofeedback (the use of monitoring devices to train a person to consciously control involuntary functions, such as heart rate) might also be helpful.