Dynamic Chiropractic

HEADACHES & MIGRAINES

The Headache Diagnosis for the Chiropractor - Part VII

(This is the seventh article in my series on headache diagnosis and management, and discusses "sex" hormones and women's headaches. Previous parts of this series may be found on the *DC* website using the *DC Archives* search link at http://www.chiroweb.com/search.

Headache is a common complaint in women of childbearing age. Migraine and tension-type headache affects women much more often than men. A woman's headache often varies in proportion to her reproductive cycle, and all the following can affect this: ovulation; menses; pregnancy; menopause; and exogenous hormone, such as the use of birth-control pills or hormone replacement therapy following hysterectomy.

The rapid shifts of hormone levels, specifically those of estrogen and progesterone. All are thought to play a significant role in menstrual headaches.

Symptoms of Common Sex Hormone Headaches

Menstrual migraine symptoms are similar to migraine. These are unilateral, throbbing headaches, accompanied by nausea, vomiting, or photophobia or phonophobia. *Aura* may precede the menstrual migraine.

PMS headache occurs before menses and is associated with a variety of symptoms that distinguish it from the typical menstrual headache. They include fatigue, brief bouts of acne, arthralgia, urinary retention, and constipation. Other symptoms include: awkwardness; increased appetite; cravings (e.g., for chocolate, salty foods, or alcohol); panic attacks; decreased libido; impaired judgment or memory; sensitivity to rejection; and even paranoia. The symptoms disappear around the time menstruation begins.

The Mechanism of Sex Hormone Headaches

Menstrual migraines are primarily caused by *estrogen*. When levels of estrogen and progesterone *change quickly*, a woman is more vulnerable to headache. Oral contraceptives influence estrogen levels. Consequently, women taking these may experience more menstrual migraines, depending upon the strength of the dosage.

Estrogen is not the only hormonal culprit. *Serotonin* is the primary hormonal trigger in headache for both women and men. It is believed that migraine is a genetic fault that somehow affects the way serotonin is metabolized in the body. Unfortunately for women, migraine is also the way through which serotonin uniquely interacts with female hormones.

In the premenopausal woman, premenstrual syndrome (PMS) headaches and the depressed feeling that commonly goes along with PMS are often thought to be caused by the dramatic rise and fall of

estrogen, progesterone and the pituitary hormone luteotropin. The "monthly headache" seems to occur around the time of high prostaglandin production, which is why PMS headaches are often treated with prostaglandin inhibitors.

In states of low estrogen, such as during menses, peripheral serotonin decreases and migraine tends to occur. During high estrogen states (such as pregnancy), peripheral serotonin increases, which tends to decrease headache episodes.

The neurotransmitters primarily related to the headache mechanism are serotonin, norepinephrine and beta-endorphin. Estrogen is known to raise levels of pain-relieving opioids in the brain and stabilizes certain mood-altering catecholamines (dopamine and serotonin), which may explain why estrogen often eliminates migraines.

In the climacteric woman, menopause is a time of fluctuating estrogen levels that are believed to trigger headaches. When headaches improve during menopause, it is likely due to a drop in estrogen after a period of several days' exposure to high levels of estrogen. The stabilization of estrogen levels by continuous estrogen therapy often helps women who experience continued or accelerated headaches during menopause.

Pregnancy

Pregnancy seems to protect women against migraines. This may be due to female hormones - estrogen and progesterone - that remain fairly constant throughout pregnancy. In other words, the hormonal fluctuations associated with menses do not occur. For those women who suffer migraines during pregnancy, they should expect them to lessen into the second trimester.

Unfortunately, some women do not find relief from migraines during pregnancy. This curious fact remains unexplained, but it might be a reflection of specific differences estrogen receptors.

Oral Contraceptives

Headache is the most common side effect reported by women taking oral contraceptives, and many women stop taking them because the headaches are so problematic. Birth control pills increase the frequency, duration, severity, and complications of headache by intensifying the fluctuations of the sex hormones. This adverse effect, however, diminishes for some women the longer they take the medication.

Estrogen Replacement Therapy

With every passing year, more women enter menopause. Many will undergo hormone replacement therapy (estrogen and progesterone or estrogen alone). These women do so to treat symptoms such as irregular or prolonged menstrual periods, osteoporosis, hot flashes, excessive sweating, vaginal dryness, depression, or to reduce the risk of cardiovascular disease.

Headache may spontaneously increase or worsen during menopause. Again, it is the drop in estrogen that triggers the migraine. For those taking Premarin, they may see worsening of their headaches, as this drug is not a very "clean" form of estrogen replacement. Many practitioners recommend switching to a skin-patch delivery system for those women needing hormone replacement therapy.

Here is an example of what a skin patch request letter to a physician should state:

(Date)
Re:_____
Dear Dr._____,

_____, a mutual patient, is under my care for transformed migraine (or applicable headache). During my examination I noticed that she is taking Premarin.

With these patients, both in my private practice and for those I see at the _____, I often ask the patient to consult with her physician about switching from Premarin to an estradiol skin patch. The basis for this request relates to that greater estrogenic effect of Premarin on promoting the type of headache Ms. Smith suffers from whereas estradiol has a far lesser headache-promoting effect.

I also explained to Ms. _____ that switching over to the skin patch delivery system is not necessarily a simple matter. She is aware that the change in her medication may not be medically feasible.

Ms. _____will be calling your office soon, as I have requested, so that she can follow-up with you on this recommendation.

If I can be of further assistance, please call me at my office.

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