Established Hormonal Therapy in the Prevention of Menstrual Migraine

This recent review article\textsuperscript{1} ignored 40 years of clinical research that identified menstrual migraine as caused by hormonal fluctuation and the hormonal therapies proven more effective than those described therein. Although as a board-certified gynecologist, educator and presenter of multiple occasions at the ASH, the preventive role of danazol\textsuperscript{2} in hundreds of severe menstrual migraines has been consistently ignored by neurologists for 20 years, favoring abortive, expensive triptans and their pharmaceutical money for continued research. Even the republication of a smaller subset of my original work\textsuperscript{3} with leuprolide acetate in migraine by Muse\textsuperscript{4} and the recent absence of this information from the review article in JAMA\textsuperscript{5} puts objectivity, physiology and intent to suppress information at the forefront of my objections to ‘unbiased’ reporting in our peer-reviewed literature.

RM Somerville\textsuperscript{6} (1972) confirmed the precipitating cause of menstrual migraine was the dropped serum estradiol levels below 50pg/ml proximately to menstruation. Greenblatt\textsuperscript{7} (1974) reported more than 10 years of hormonal migraine prevention with estradiol pellets beginning in 1950. Lichten’s\textsuperscript{2} (1991) study of resistant hormonal migraine sufferers found 67 of 81 at 12-months had relief with danazol 200mg taken twice daily for 25 of 28 days per month. Lichten recreated Somerville’s 1972 study in 1996. Studd (1983) and Lichten (1999) confirmed Greenblatt’s work with estradiol pellets in the prevention of women’s hormonal migraines.

The physiology is clear: the fluctuation and drop of estradiol after reaching luteal phase nadir precipitates instability in estrogen receptors in the carotid node. Estradiol pellets stabilizing elevated estradiol levels (Greenblatt) or suppressing estradiol levels (Lichten) offer two effective preventative therapies with unequalled 75\% or greater success rates and profound reduction of pain and migraines.

Treating physicians should review Gender Specific Medicine models of disease observing the incidence of migraine during reproductive years favors women 6:1; yet, before and afterwards, gender ratios are fairly equivalent. As the cause is hormonal, effective preventive treatment is establishing a stable hormonal milieu. In today’s practice, two concurrent estradiol patches may replace pellets and a combination of two anti-estrogenic, non-testosterone anabolics in a weekly injection may replace danazol; proving the effectiveness of similar physiological stable estradiol states. Bilateral oophorectomy has proven effective for some resistant cases.

Women with migraine report the onset coincided with hormonal events: menarche, pregnancy, delivery, hormonal contraception and/or menopausal hormonal replacement. Treatment of hormonal migraine with abortive medications (caffeine, ergot, sumatriptan) converts the episodic migraine into refractory rebound tension-type headaches that may responds well to interrupting the muscle spasm with trigger point injections, BOTOX\textsuperscript{™}, topical muscle relaxers and physical therapy.

Lichten and Lichten\textsuperscript{8} (1996) confirmed that menstrual migraine is an example of an epigenetic disease. Of 28 menopausal women on no hormonal therapy, an injection of depo-estradiol
precipitated migraine in the 16 with a history of menstrual migraine but not in one of the controls. The ‘epi’ factor was the drop induced at day 21 in serum estradiol levels below the 50pg/ml threshold, yet, migraine occurred only in those with a positive (genetic) history of hormonal-induced migraine.

References:


5. JAMA 2017 June 6; 317(21): 2230-1. Editors: Mark Abranowicz,M.D., President; Gianna Zuccotti M.D., M.P.H., Vice-President and Executive Eitor; Jean-Marie Pflomm, Pharm.D. Editor in Chief.


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