Migraine in Women: Inescapable Femaleness?

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The understanding of migraines as neurological conditions has significantly advanced in recent years. However, societal perceptions often attribute migraines, especially in women, to personality traits instead of acknowledging them as complex neurological conditions. Two review papers published in Headache and Pain Research, by Kim and Park¹ and by Seo,² focused on migraines in women and menstrual migraines, highlighting the importance of recognizing the influence of hormonal fluctuations and genetic susceptibility on migraines, beyond the scope of individual characteristics or traits.

The higher incidence of migraines in women has been linked to various hormonal phases and intervals during their reproductive years, including menarche, pregnancy, the postpartum period, breastfeeding, perimenopause, menopause, and the use of oral contraceptives and hormone replacement therapy. Fluctuations in estrogen, in particular, are a key factor in the pathophysiology of migraines, markedly affecting the frequency, severity, and duration of migraine episodes in women.³

Perimenstrual migraine attacks are typically more severe and harder to manage. Research utilizing headache and menstruation diaries has shown that these perimenstrual attacks are more disabling and tend to last longer than those not associated with the menstrual cycle.⁴ Additionally, interictal plasma concentrations of calcitonin gene-related peptide are elevated in women who experience menstrually related migraines during their periods, compared to healthy women.⁵ However, many women often downplay the role of menses when initially asked about a temporal relationship and do not monitor their headaches or hormonal influences. It is essential for healthcare providers to take a comprehensive history of hormonal events during the initial consultation with women who present with headaches. Pharmacological treatments must take into account potential pregnancy-related issues and their effects on fetal development. Concurrently, non-pharmacological strategies such as lifestyle adjustments, stress management, and dietary modifications are equally important, particularly during pregnancy.

Despite advancements in migraine research, significant knowledge gaps persist concerning the gender-specific aspects of its management. Further research is required to elucidate the underlying mechanisms that lead to variations in hormone levels, which in turn affect the prevalence, symptoms, and treatment responses of migraines. Moreover, investigations into the safety and efficacy of migraine treatments during pregnancy remain crucial for informing clinical practice.

In conclusion, migraines in women constitute a complex condition influenced by hormonal fluctuations and various life stages. It is essential to develop tailored management strategies that consider individual needs and potential considerations related to pregnancy in order to
optimize outcomes. Continued research focusing on the gender-specific aspects of migraines is necessary to meet the unmet needs of women who experience this debilitating condition. Recognizing migraines as a biological disease influenced by hormonal changes will hopefully lead to more effective headache treatments that are customized to a patient’s hormonal status.

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