

The Association of Reproductive Hormones During the Menstrual Period with Primary Dysmenorrhea [Letter]

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Dear editor

With great pleasure, we have read a paper by Jiang et al, a case-control study among patients with dysmenorrhea and without dysmenorrhea, regarding the association of reproductive hormones during the menstrual period with primary dysmenorrhea. The study described the relationship of four reproductive hormones with the development of primary dysmenorrhea. The hormones included in the investigation were oxytocin, PGF2 α , vasopressin, estriol, and estradiol collected three to five days after menstruation.¹

Although the study aimed to assess the pure association of reproductive hormones with primary dysmenorrhea, a research question arises here is whether the symptoms themselves for primary dysmenorrhea can differ with other clinically known risk factors like being below 20 years of age, history of dysmenorrhea in primary family members, early menarche, history of menorrhagia and nulliparity, low or high body mass index (BMI<18.5 and BMI>25), low omega 3 intake, tobacco and alcohol use, excessive caffeine consumption, and emotional problems such as stress, anxiety, and depression.¹⁻⁴

We appreciated the authors in the way that they selected the case and control groups, the timing of serum sample collection, the scientific measurement of hormonal levels, and the statistical analysis that followed. But a second question raised here is that the authors included clients after three to four days of their monthly menstrual period in which most of the primary dysmenorrhea is expected to be relieved. Hence most of the symptoms of dysmenorrhea typically occur premenstrually and will subside after the menstrual phase or bleeding phase of the monthly cycle, otherwise we have to suspect anatomical disorders other than the physiological.⁵⁻⁷ This implied that the authors' inclusion term "spasmodic pain or similar to labor pain" could not be valid in this instance.

The authors mentioned the possible associated factors in a descriptive manner, but confusion still exists on the subjective nature of patient-rated spasmodic pain and the sophisticated interdependence of menstrual hormones with the lifestyle of a woman, other non-reproductive biomarkers.⁸ A study with a menstrual pain measuring or rating tool and determinants of these physiological hormones will be needed to clear these research questions.

We appreciate the authors for the detailed investigation of these reproductive hormones in studying its association with primary dysmenorrhea.

Disclosure

The authors report no conflicts of interest in this communication.

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