

Premenstrual symptoms getting on your nerves?

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For some women premenstrual syndrome (PMS) is a minor monthly annoyance, but for others, more severe symptoms seriously disrupt their lives. However despite the number of women affected, science has yet to offer a full explanation or universal treatment. Now intriguing new findings published in the online open access journal *BioPsychoSocial Medicine* suggest not only that PMS is tied to decreased nerve activity each month, but also that those with extreme symptoms may have a permanently depressed nervous system.

A team of Japanese researchers led by Tamaki Matsumoto from the International Buddhist University in Osaka investigated whether the activity of the autonomic nervous system, which plays a vital role in equilibrium within the human body, changed during the menstrual cycle. The team measured heart rate variability and hormone levels and used questionnaires to evaluate physical, emotional and behavioural symptoms accompanying 62 women's menstrual cycles.

For the parameters Matsumoto's team was testing, the control group with little or no menstrual symptoms did not vary during the month. However women suffering from PMS saw results reflecting autonomic and parasympathetic nerve activity decrease significantly in the late luteal phase, which precedes menstruation. Those with the most marked symptoms (known as premenstrual dysphoric disorder) had lower rates of nerve activity than the other groups during the entire menstrual cycle.

“Our findings indicate that the occurrence of premenstrual

symptomatology could be attributable to an altered functioning of the autonomic nervous system in the symptomatic late luteal phase,” says Matsumoto. For women with PMDD, findings indicate that sympathovagal activity was altered even in the follicular phase. Matsumoto asks: “Does this imply that women with lower autonomic function regardless of the menstrual cycle are vulnerable to more severe premenstrual disorders? At the moment, the underlying biomechanisms of PMS remain enigmatic.”

PMS comprises myriad non-specific physical, emotional, behavioural, and cognitive symptoms that occur in the days prior to menstruation and is nearly omnipresent in women of reproductive age from all cultures and socio-economic levels. The most prevalent symptoms include: irritability, mood lability, depression, anxiety, impulsivity, feelings of “loss of control,” fatigue, decreased concentration, abdominal bloating, fluid retention, breast swelling, and general aches.

Source: BioMed Central

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