

Yale Program For
Women's Reproductive
Behavioral Health
(WRBH)

Menstrual Cycle Brain Imaging Studies

Women with experience premenstrual dysphoric disorder (PMDD) undergo brain imaging once in the follicular phase and once in the luteal phase of the menstrual cycle before, during and after treatment with the serotonin reuptake inhibitor fluoxetine (Prozac®).

Up to 9% of menstruating women experience premenstrual dysphoric disorder (PMDD), a condition characterized by moderate to severe mood symptoms in the week leading up to the onset of menstruation. These symptoms remit within a few days of onset of menstrual flow. However, the symptoms return with the same pattern most months out of the year and can cause considerable distress. Typical symptoms of PMDD are irritability, mood fluctuations, sadness, anxiety/tension, fatigue, breast tenderness/bloating, appetite, and sleep changes. Dr. C. Neill Epperson and her staff are investigating how menstrual cycle-related changes in hormones may alter brain chemistry and thus trigger PMDD symptoms. If a woman meets criteria for PMDD, she will undergo a neuroimaging procedure known as proton magnetic resonance spectroscopy (1H-MRS). This brain imaging method does not use radioactive substances and is very safe and well-tolerated. Women are scanned once in the follicular phase and once in the luteal phase of the menstrual cycle before, during and after treatment with the serotonin reuptake inhibitor fluoxetine (Prozac®). Women are paid for completing the 2 months of daily ratings as well as for each scan they complete. This study will further our knowledge of the how medications such as fluoxetine work to treat the symptoms of PMDD (HIC #10098). For more information visit www.research4women.org or call 203-764-9934.