Influence of Menstrual Cycle on 7-Hydroxy Derivatives of Dehydroepiandrosterone Levels

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Introduction: 7-hydroxyl DHEA derivatives are labelled as natural anti-glucocorticoid and neuroprotective substances. Their impact on the production of cytokines, their activation of apoptosis, influence on the migration of macrophages to peripheral tissue, their possible effect on angiogenesis, effect on inflammatory mediators (arachidonic acid metabolites) and their role in the mechanism of oxidative stress have been described.

Methods: In our study we will search changing in these steroid hormones during menstrual cycle in group of 20 healthy women, (age 20-40 years, non-smokers, without hormonal contraception or other medication). In all individuals, we analyzed DHEA, DHEAS, 7-hydroxyl DHEA derivates and their polar conjugates, LH, FSH and SHBG in follicular and luteal phase. Repeated measures ANOVA followed by least significant difference, multiple comparison was used for statistic comparison.

Results: We found a decrease of 7-hydroxyl DHEA derivatives in healthy women in the luteal phase compared to the follicular phase.

Conclusion: This physiological decrease of natural anti-glucocorticoid could play the role during ovulation and embryogenesis. But also they mild be one of the cause of different reaction on some pathologies in women during the menstrual cycle.

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