

P275. Potential immunoprotective role of dheas on endometriosis in premature ovarian insufficiency patients

Z Stojanovic (RS) [1], M Tancic-Gajic (RS) [2], M Ivovic (RS) [3], L Marina (RS) [4], Z Arizanovic (RS) [5], S Vujovic (RS) [6]

INTRODUCTION: Endometriosis is a chronic, lifelong inflammatory disease, characterized by implantation and growth of endometrial tissue outside the uterine cavity. Recently, endometriosis has been considered as autoimmune disease, owing to the presence of autoantibodies and pro-inflammatory cytokines. Dehydroepiandrosterone (DHEA) and its sulfate (DHEAS) are steroids of adrenal origin. Notably, it's concentration in blood declines with age and also is responsible for majority of menopausal symptoms. A growing body of literature has shown that DHEA (S) has significant immune modulatory function, exhibiting both immune stimulatory and anti-glucocorticoid effects. **AIM:** was to investigate the significance of the level of Dehydroepiandrosterone sulfate (DHEAS) in premature ovarian insufficiency (POI) patients with endometriosis. **METHODS:** Sixty POI patients (matched by age, and BMI) were divided in two groups: with or without endometriosis, irrespectively of surgical treatment. Fasting blood samples were obtained for: follicle stimulating hormone (FSH), luteinizing hormone (LH), estradiol (E2), DHEAS, androstendion (ANDRN) and cortisol (COR). **Statistics:** T test, SPSS program. **RESULTS:** The results shown that the level of DHEAS was numerically higher in POI patients without endometriosis, but there was no statistically significant differences in the level of DHEAS between the groups: $t(6.9)$, $p < 0.641$. Likewise, the level of other investigated parameters shown no statistically significant differences among the groups: FSH ($t(23.6)$, $p < 0.51$), LH ($t(4.5)$, $p < 0.44$), E2 ($t(5.1)$, $p < 0.19$), ANDRN ($t(2.3)$, $p < 0.77$), COR ($t(7.1)$, $p < 0.35$). **CONCLUSION:** Immune disruption in POI patient with endometriosis is multifactorial and incompletely revealed. In future comprehensive research are required in order to specify exact effects of DHEA on immunopathology process and reveal the therapeutic potential of this steroid.

[1] Clinic for Endocrinology, Diabetes and Metabolic Disease, Clinic Centre of Serbia, Belgrade, [2] Clinic for Endocrinology, Diabetes and Metabolic Disease, Clinic Centre of Serbia, Belgrade, [3] Clinic for Endocrinology, Diabetes and Metabolic Disease, Clinic Centre of Serbia, Belgrade, [4] Clinic for Endocrinology, Diabetes and Metabolic Disease, Clinic Centre of Serbia, Belgrade, [5] Clinic for Endocrinology, Diabetes and Metabolic Disease, Clinic Centre of Serbia, Belgrade, [6] Clinic for Endocrinology, Diabetes and Metabolic Disease, Clinic Centre of Serbia, Belgrade

