

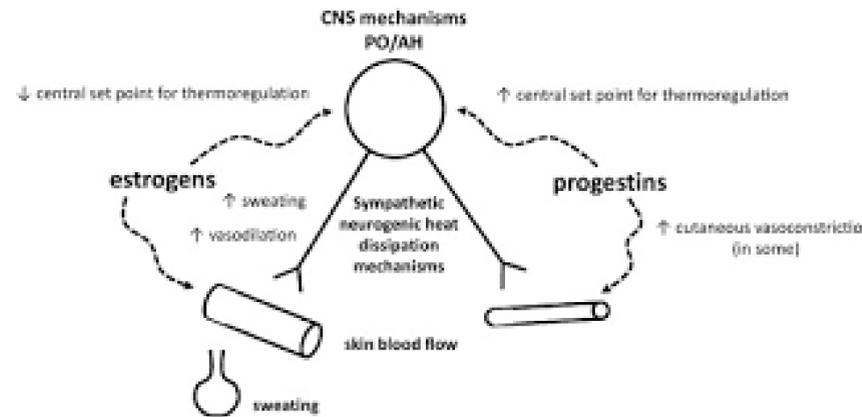
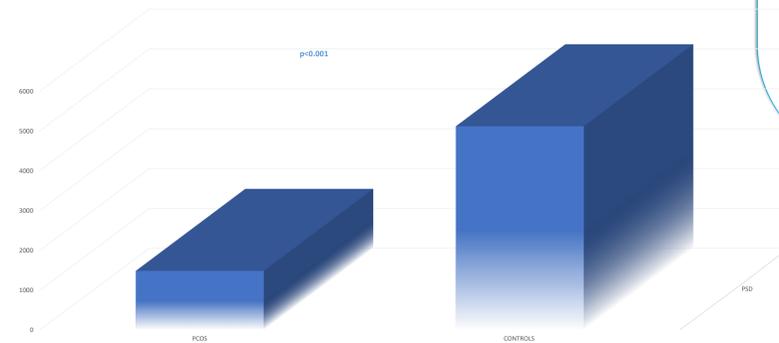
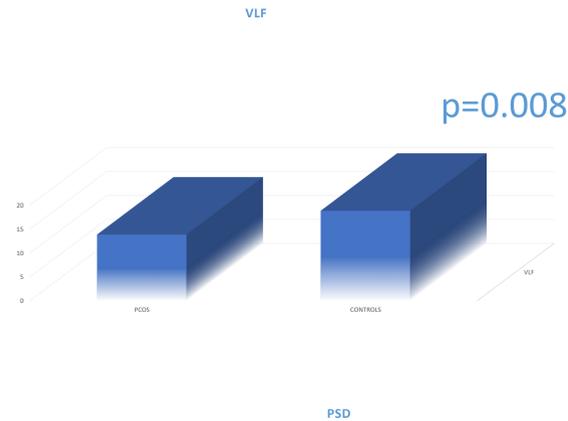
Thermoregulatory delays in Greek PCOS adolescents

Styliani Geronikolou^{1,2}, George Chrousos^{1,2}, Dennis Cokkinos¹, Flora Bacopoulou¹

¹Center for Adolescent Medicine and UNESCO Chair in Adolescent Health Care, First Department of Pediatrics, School of Medicine, National and Kapodistrian University of Athens, Aghia Sophia Children's Hospital, 1 Thivon Street, 11527 Athens, Greece

²Clinical, Translational and Experimental Surgery Research Centre, Biomedical Research Foundation of the Academy of Athens, 4 Soranou Ephessiou Street, 11527 Athens, Greece

This work focused on Polycystic Ovary Syndrome. A case-control study in adolescents was designed. 19 adolescent Greek PCOS patients and 21 non-PCOS controls were enrolled in this study after signing a written informed consent. All participants were measured for their hormonal, anthropometric and autonomic nervous system profile in supine position. The study adhered to the Helsinki Guidelines of Good Clinical Practice. Significant differences were found only in very low frequencies (VLF) ($p=0.008$) and Power Spectral Density (PSD) RR ($p<0.001$) between PCOS patients and controls. PSD was found decreased, when combined with the VLF points to thermoregulatory delays. VLF is related to renin-angiotensin-activity, suggesting early onset of hormonal fluctuations and/or cardiometabolic manifestations related to the syndrome. The fact that no other autonomic nervous system or cardiac marker was disturbed, suggests that in this early stage no cardiovascular disease onset was detected. The findings suggests that future research should focus on the role of cholinergic and vagal innervation in the development and persistence of the disease.



UNESCO Chair on Adolescent Health Care
National and Kapodistrian University of Athens
Greece

