Heart rate variability in adolescent polycystic ovary syndrome Greek patients

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BACKGROUND

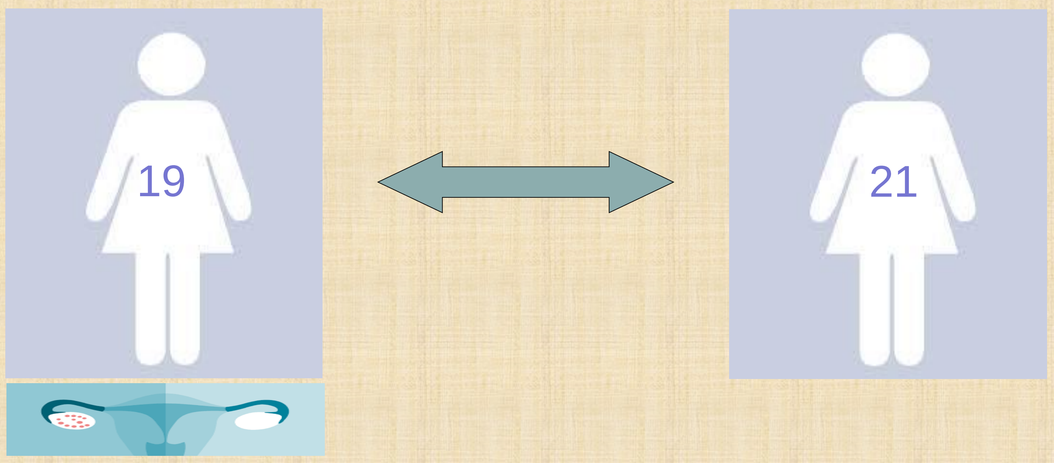
The polycystic ovary syndrome (PCOS) is believed to contribute to adverse cardiovascular effects.

OBJECTIVES & HYPOTHESES

The aim of the present study was to investigate the potential alterations in heart rate variability (HRV) pattern in adolescent patients with PCOS.

METHODS

Nineteen adolescents with PCOS (patient group; mean age 16.8 ± 3.2 years) and twenty one age- and body mass index (BMI)- matched non-patients (control group; mean age 16.9 ± 2.1 years), who presented to the Centre for Adolescent Medicine and UNESCO Chair on Adolescent Health Care of the First Department of Pediatrics, at the Aghia Sophia Children's Hospital, in Athens, Greece, over a period of one year, were enrolled in this study after signing informed consent. HRV was assessed by mean normal-to-normal beats intervals (mNN).

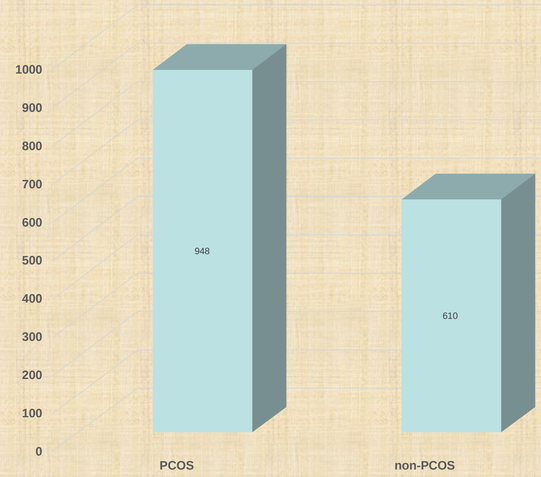


Group	Age mean (SD)	BMI mean (SD)
PCOS	16.8 (3.2)	26.02 (3.2)
Control	16.9 (2.1)	25.1 (4.1)

RESULTS

Significant differences in mNN (p=0.021), between patient and control groups, were detected.

Group	mean	SD
PCOS	948.01	203.7
control	610.2	109.22



CONCLUSIONS

HRV decomposed in mNN reflects the variance in time between consecutive sinoatrial depolarizations. The observed significant increase reflects specific shifts in sympathovagal balance; the observation may be disease specific, due to increased androgen levels in PCOS.

REFERENCES

1. Geronikolou S, Bacopoulou F, Cokkinos D. Bioimpendance measurements in adolescents with PCOS: a pilot study
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There is no conflict of interest

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