Heart rate variability in adolescent polycystic ovary syndrome Greek patients

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OBJECTIVES & HYPOTHESES

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

RESULTS

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

<table>
<thead>
<tr>
<th>Group</th>
<th>mean</th>
<th>SD</th>
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<tbody>
<tr>
<td>PCOS</td>
<td>948.01</td>
<td>203.7</td>
</tr>
<tr>
<td>control</td>
<td>610.2</td>
<td>109.22</td>
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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


There is no conflict of interest  sgeronik@boacademy.gr