Clinical and metabolic characteristics of hyperandrogenic girls with non-classic congenital adrenal hyperplasia and polycystic ovary syndrome

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INTRODUCTION

• Non-classic congenital adrenal hyperplasia (NCAH) and polycystic ovary syndrome (PCOS) present with similar hyperandrogenic signs symptoms in adolescent girls and may be associated with the development of cardiometabolic disorders.

METHODS

A total of 114 girls (mean age 14.7±2.8 years) newly diagnosed with NCAH and PCOS between 2016-2020, were included in the study.

Data was collected about:
• Anthropometrics
• height, weight,
• BMI (the overweight/obesity was defined according to IOTF-scales)
• Physical examination
• Laboratory tests:
• Metabolic parameters (serum lipids, glucose, insulin, CRP)
• Hormonal analysis (total testosterone, 17OHProgestosterone, DHEAS, androstendione, LH, FSH)
• Pelvic ultrasound

AIM

• To evaluate the prevalence and the association between the clinical and biochemical parameters of hyperandrogenism and metabolic disorders in girls with NCAH and PCOS at the time of the initial diagnosis.

RESULTS

<table>
<thead>
<tr>
<th>Parameters</th>
<th>NCAH</th>
<th>PCOS</th>
<th>P-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hirsutism</td>
<td>84.7%</td>
<td>52.7%</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Acne</td>
<td>33.9%</td>
<td>9.1%</td>
<td>0.001</td>
</tr>
<tr>
<td>Alopecia</td>
<td>18.6%</td>
<td>3.6%</td>
<td>0.012</td>
</tr>
<tr>
<td>Overweight/obesity</td>
<td>27.1%</td>
<td>56.4%</td>
<td>0.001</td>
</tr>
<tr>
<td>Menstrual disorders</td>
<td>60%</td>
<td>94.5%</td>
<td>0.02</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameters</th>
<th>NCAH</th>
<th>PCOS</th>
<th>P-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-OH Progesterone ng/ml</td>
<td>2.1±1.8</td>
<td>0.7±1.4</td>
<td>&lt;0.0001</td>
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<tr>
<td>Testosterone nmol/l</td>
<td>1.5±0.8</td>
<td>1.2±0.7</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Androstendione nmol/l</td>
<td>15.96±5.9</td>
<td>12.02±6.7</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>LH IU/l</td>
<td>11.3±11.3</td>
<td>5.8±4.1</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

CONCLUSIONS

The current results suggest that:
• hirsutism and acne are the main clinical symptoms in NCAH girls at diagnosis
• PCOS patients present more often with menstrual disorders and obesity.
• metabolic disorders are not expressed at the diagnosis of both disorders.

REFERENCES


ACKNOWLEDGEMENTS

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CONTACT INFORMATION

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