Referral of patients from Lithuania to determination of dehydroepiandosterone sulphate and no clinical consequences of results


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Introduction

Recently Matulevičius et al. found the case of a thirty-eight-year-old woman with complaints of secondary amenorrhea, hirsutism, decreased sexuality, weight gain and epileptic seizures. This patient also presented with elevated dehydroepiandrosterone sulphate (DHEAS) and testosterone levels. According to these symptoms we performed a retrospective study to see if there were more cases of dehoma (elevation of DHEAS + adrenal tumor).

Methods

\[
\text{DHEAS RATIO} = \frac{\text{DHEAS concentration of the patient}}{\text{DHEAS maximum value of determination kit of age group}}
\]

The results were divided to high and normal according to the DHEAS Ratio (R).

In Lithuania during 2014 1772 patients were referred for the dehydroepiandrosterone sulphate (DHEAS) concentration assessment.

We performed a retrospective analysis of 309 clinical history cases of which 182 presented with normal DHEAS concentration and 147 with elevated one. Clinical history cases were not randomly selected.

Results

From the list of DHEA-S assessment in Lithuania during 1 year (2014) we selected cases with normal and elevated DHEA-S.

In women with high DHEA-S, weight, body mass index and hirsutism were found statistically higher as compared with healthy women. No difference in menstrual cycle disorder was observed. In men, there was a clinical difference: in patients with high DHEAS, higher blood pressure was found as well as frequency of adrenal tumors.

Conclusion

The clinical features of the patients with high DHEAS reveals increase of body weight, BMI and hirsutism in women but increase of elevated blood pressure and frequency of adrenal tumor in men.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>n</th>
<th>Hirsutism</th>
<th>Menstrual cycle disorder</th>
<th>Weight gain</th>
<th>Infertility</th>
<th>Elevated blood pressure</th>
<th>Body weight, kg (Mean±SD)</th>
<th>n (different items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>142</td>
<td>21.7%</td>
<td>32.3%</td>
<td>-</td>
<td>10.6%</td>
<td>8.1%</td>
<td>72.5±22.41</td>
<td>20</td>
</tr>
<tr>
<td>DHEAS</td>
<td>123</td>
<td>39%</td>
<td>23%</td>
<td>8%</td>
<td>-</td>
<td>-</td>
<td>80.7±20.85</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 1. Concentration of DHEAS and testosterone of women.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>n</th>
<th>↑ Blood pressure</th>
<th>Adrenal tumor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy men</td>
<td>20</td>
<td>10%</td>
<td>25%</td>
</tr>
<tr>
<td>DHEAS</td>
<td>24</td>
<td>33%</td>
<td>29.2%</td>
</tr>
</tbody>
</table>

Table 3. The complaints of male patients.

References