ASSESSMENT OF DEPENDENCE OF THE HYPOGLYCEMIC EPISODES FREQUENCY ON GENDER FACTOR

Authors E. Mahlna, Y. Navmenova*, T. Mokhhort**
SI Republican Research Centre for Radiation Medicine and Human Ecology,
Gomel State Medical University*, Belarusan State Medical University**

OBJECTIVES
Assessment of the frequency of hypoglycemic episodes during daily monitoring of glucose in the subcutaneous water of women and men with type 1 diabetes mellitus.

METHODS
The study of daily dynamics of glucose has been performed with continuous glucose monitoring system (CGMS) Medtronic MINIMED company, the USA. The study involved 162 patients with type 1 diabetes mellitus. The patients were divided into 2 groups: group 1 - women with regular menstrual cycle (n = 117), group 2 - men (n = 45). The groups were compared in mean age (29.14 ± 7.56 years) and duration of type 1 diabetes mellitus (10.74 ± 7.67 years).

Clinic and laboratory characteristics of examined patients, Me [25;75]

<table>
<thead>
<tr>
<th></th>
<th>1st group (n = 117)</th>
<th>2nd group (n = 45)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>28.23 [22.76;34.93]</td>
<td>33.30 [24.24;38.76]</td>
<td>0.131</td>
</tr>
<tr>
<td>HbA1c, %</td>
<td>8.80 [7.60;10.40]</td>
<td>9.00 [7.40;10.10]</td>
<td>0.666</td>
</tr>
<tr>
<td>Duration of T1DM, years</td>
<td>8.81 [3.96;14.24]</td>
<td>8.00 [5.00;11.96]</td>
<td>0.311</td>
</tr>
<tr>
<td>Body mass index, kg/m2</td>
<td>23.43 [21.56;26.02]</td>
<td>24.80 [22.20;26.56]</td>
<td>0.200</td>
</tr>
<tr>
<td>Weight, kg</td>
<td>63.00 [57.00;70.00]</td>
<td>77.50 [70.50;83.50]</td>
<td>0.001</td>
</tr>
<tr>
<td>Number of SU per day</td>
<td>16.00 [14.00;19.00]</td>
<td>17.00 [15.00;21.00]</td>
<td>0.072</td>
</tr>
<tr>
<td>Day dose of insulin, IU/day</td>
<td>0.69 [0.59;0.87]</td>
<td>0.68 [0.52;0.88]</td>
<td>0.382</td>
</tr>
</tbody>
</table>

RESULTS
In the first group of women 53%, registered hidden hypoglycemic episodes, and 47% were not observed (p <0.05). In the second group of men 69% has been registered hidden hypoglycemic episodes, and 31% were not observed (p <0.01). As for the incidence of hidden hypoglycemic episodes between the groups, the significant differences were not observed (in the first group - 53%, in the second group - 69%) p > 0.05.

Depending on the time of day, the incidence of hidden hypoglycemic episodes (in the first group, 83% in the second group, 75%) prevailed in comparison with explicit (in the first group, 17%, in the second group, 25%) p <0.001. The daytime incidence of hypoglycemic episodes in the first group was 72%, in the second group was 85% in comparison with the incidence of night hypoglycemic episodes (in the first group 28%, in the second group 15%), p <0.05.

CONCLUSIONS
1. Regardless of gender, the bulk of the cases occurred in hidden hypoglycemic episodes compared with explicit ones.
2. The incidence of hidden day-time hypoglycemic episodes was prevailed over the night incidence of hypoglycemic episodes, regardless of gender.
3. The incidence of hidden hypoglycemic episodes does not depend on gender.