**Objectives:**

The aim of this study has been to estimate efficiency of insulinotherapy in diabetic patients after LH was diagnosed by ultrasonography.

**Material and methods:**

- 50 diabetic patients, who had been under the treatment with insulin a mean 10 years
- Visit: - at the moment of LH diagnostics - after 6 months
- Dianetes compensation criteria:
  - HbA1c level,
  - fasting and postprandial glucose,
  - episodes of hypoglycemia,
  - body mass, body mass index (BMI)
- LH diagnostics:
  - Ultrasonography of subcutaneous fat

**Results:**

LH detected by ultrasonography

**Diabetes compensation criteria**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Control</th>
<th>LH Detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>HbA1c</td>
<td>9.27 ± 2.32</td>
<td>7.43 ± 1.52</td>
</tr>
<tr>
<td>Fasting glucose</td>
<td>9.03 ± 3.98</td>
<td>7.11 ± 2.95</td>
</tr>
<tr>
<td>Postprandial glucose</td>
<td>10.27 ± 3.72</td>
<td>9.34 ± 2.61</td>
</tr>
<tr>
<td>Body mass</td>
<td>72.44 ± 15.75</td>
<td>70.08 ± 15.02</td>
</tr>
<tr>
<td>BMI</td>
<td>26.34 ± 6.07</td>
<td>25.25 ± 4.06</td>
</tr>
<tr>
<td>Hypoglycemia</td>
<td>1.97 ± 2.23</td>
<td>1.10 ± 0.91</td>
</tr>
</tbody>
</table>

* - p < 0.05

**Conclusions:**

There were significant improvement of all estimated parameters which characterized the diabetes compensation after changing injected sites because of detected by ultrasonography LH.

Since ultrasonography of subcutaneous fat is more sensitive than classic LH diagnostics, it might be used in general clinical practice instead of common detection of LH.