Imeglimin, a novel oral anti-diabetic, exhibits good glycemic control in Type 2 diabetic patients

V. Pirags¹, H. Lebovitz², and P. Fouquiery³

Faculty of Medicine, Pauls Stradiņš Clinical University Hospital, Riga, Latvia; Department of Medicine, Duke University of New York, Staten Island, New York, United States; PhD SA Lyon, France.

Background

There is an urgent unmet medical need for new agents that provide sustained efficacy with very good tolerability and safety. Imeglimin is a novel glimisin oral anti-diabetic that targets insulin-resistant organs, addresses β-cell failure (Figure 1) and is expected to meet unmet medical needs.

Aim

To investigate the effects of imeglimin on glycemic control compared with metformin in T2D patients.

Materials and Methods

This phase II study was conducted to investigate the effects of imeglimin on glycemic control.

Oral Glucose Tolerance Test (OGTT) Study

Design: Randomized, double-blind, double-dummy, three-arm parallel group, and multiple doses. Subjects were T2D patients:

- Treatment naïve or previous monotherapy with an oral anti-diabetic,
- Aged 18–65 years
- Treatment naïve or previous monotherapy with an oral anti-diabetic
- Body mass index (BMI) 22 to 40 kg/m²

The OGTT was performed during the wash out/run-in period (after 18 days wash out), and after 20 days of treatment. Imeglimin was administered twice daily (bid) (n=19); metformin 850 mg bid (n=19).

Results

Table 1: Between Treatment Comparisons of OGTT AUC

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Change in AUC (LS Mean)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imeglimin bid vs Metformin bid</td>
<td>-0.518 (0.033)</td>
<td>0.005</td>
</tr>
<tr>
<td>Imeglimin od vs Metformin bid</td>
<td>-0.518 (0.033)</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Conclusions

Imeglimin was as effective as metformin at reducing the AUCOGTT and AUCPG. No safety concerns were identified.

References