Introduction
Neonatal Diabetes Mellitus (NDM) is a rare form of monogenic diabetes that typically presents during the first 6 months of life. Its prevalence is about 1:100,000 live births; however, it may rise up to 1:29,000 in highly consanguineous populations. Mutations in 21 different genes are reported as well as methylation defects at the 6q24 locus; with the most common cause being potassium channel subunit gene (KCNJ11/ABCC8) mutations. Causative mutations among consanguineous populations seem to differ. Studies on NDM in these populations are still limited.

Aim
To identify the genetic causes among a group of Egyptian patients with NDM and to describe their clinical phenotypes.

Results

<table>
<thead>
<tr>
<th>Male/Female, (n)</th>
<th>Mean Age of Onset (months)</th>
<th>Mean Gestational Age (weeks)</th>
<th>Mean Birth Weight (g)</th>
<th>Mean Plasma Glucose Level at Onset (mg/dl)</th>
<th>Mean HbA1C Level (%)</th>
<th>Mean Insulin Dose at onset (U/kg/day)</th>
<th>Positive Family history of DM, n (%)</th>
<th>Consanguinity, n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/6</td>
<td>2.6</td>
<td>37</td>
<td>2500</td>
<td>529</td>
<td>8.2</td>
<td>0.7</td>
<td>9 (56%)</td>
<td>10 (62.5%)</td>
</tr>
</tbody>
</table>

Clinical presentations associated with Neonatal Hyperglycaemia of the study group

Genetic causes of Neonatal Diabetes in the study group

Conclusion
- The genetic causes identified among the studied group were heterogeneous.
- Potassium channel subunit gene mutations were identified in 25% (4/16) of the total studied group, which is less than the reported percentage in European populations.
- A variable spectrum of clinical phenotypes were associated, however diabetic ketoacidosis was the most common presentation.
- Syndromic forms of NDM were more identified in the consanguinous group.

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References

Declaration of interest
None of the authors have any conflict of interest to declare.