Elevated Hemoglobin A1C Levels Correlated With Blood Glucose Elevation in Diabetics After Cortisone Injection

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Study Group

<table>
<thead>
<tr>
<th>Study Group</th>
<th>N</th>
<th>Baseline Blood Glucose (mg/dL) (range)</th>
<th>HbA1c (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDDM</td>
<td>12</td>
<td>113 (87-137)</td>
<td>7.0% (5.6 - 10)</td>
</tr>
<tr>
<td>NIDDM</td>
<td>13</td>
<td>121 (107-160)</td>
<td>6.6% (6 – 8.2)</td>
</tr>
</tbody>
</table>

Table 3. Total average baseline blood glucose and HbA1c Levels for IDDM vs NIDDM diabetes.

RESULTS CONTINUED

• Insulin dependent diabetics had significantly higher post-injection blood glucose levels than non-insulin dependent diabetics (p=0.009).

• There was a significant positive correlation (Pearson correlation coefficient) between high baseline HbA1C levels and the extent to which glucose levels increased post-injection (r=0.76, p=0.0008).

• There was no significant correlation between the HbA1C levels and the duration of the hyperglycemic event (r=0.32, p>0.15).

CONCLUSION

The hyperglycemic response in diabetics following the administration of injected corticosteroids in the hand has long been recognized, but there are no known risk factors identified to predict the intensity of this response. Based on the results of this study, it appears that baseline HbA1C levels correlate strongly with the degree of blood glucose elevation following local administration of corticosteroids in the hand, and may represent an important tool for patient education in this common clinical scenario.

REFERENCES