Impact Of Glucose Control And Its Regimen On Limb Salvage In Patients Undergoing Endo Or Open Interventions For CLTI

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Conflicts of Interest/Disclosures

- No conflicts of interest
- Work by
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Risk Factors

- Age
- Male Gender
- Cigarette smoking
- Diabetes
- Hyperlipidemia
- Hypertension
- Renal insufficiency

Why Should You Care?

Counties with the highest percentage of adults aged 20-74 years with diagnosed diabetes in 2016.

Approximate odds ratios for risk factors for symptomatic peripheral arterial disease.


Importance Of Limb Preservation

Number and Percentage of U.S. Population with Diagnosed Diabetes, 1989–2015

Diabetes trend

IMPORTANCE OF LIMB PRESERVATION

<table>
<thead>
<tr>
<th>Disease measure</th>
<th>No complications</th>
<th>Minor complications</th>
<th>More than minor complications</th>
<th>Amputation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death within 1 year</td>
<td>15.4% (95)</td>
<td>17.0% (95)</td>
<td>19.4% (95)</td>
<td>21.8% (95)</td>
<td>0.04</td>
</tr>
<tr>
<td>Living at year 2000</td>
<td>66.7% (95)</td>
<td>65.4% (95)</td>
<td>64.9% (95)</td>
<td>63.2% (95)</td>
<td>0.65</td>
</tr>
<tr>
<td>Living at year 2015</td>
<td>71.5% (95)</td>
<td>69.9% (95)</td>
<td>67.8% (95)</td>
<td>65.4% (95)</td>
<td>0.10</td>
</tr>
<tr>
<td>Living at year 2016</td>
<td>63.7% (95)</td>
<td>62.1% (95)</td>
<td>59.9% (95)</td>
<td>57.3% (95)</td>
<td>0.10</td>
</tr>
</tbody>
</table>

- Odds ratio (OR): 1.23 (95)
- 95% CI: 1.09 to 1.38
- p-value: 0.001

- Odds ratio (OR): 0.98 (95)
- 95% CI: 0.95 to 1.02
- p-value: 0.46
Study Background

HbA1c, and Lower-Extremity Amputation Risk in Low-Income Patients With Diabetes

Association between glycated haemoglobin and the risk of lower extremity amputation in patients with diabetes mellitus—review and meta-analysis

S. L. Adler, N. Esposito, T. S. S. Elina, 
A. H. D. Bambra

Received: 21 September 2016; Accepted: 15 November 2016; Published online: 1 February 2018

RR of Amputation ↑
1.26 for every 1% Rise in HbA1c

Study Background

Favorable Effects of Insulin Sensitizers Pertinent to Peripheral Arterial Disease in Type 2 Diabetes

In Type 2 Diabetes, Incidence of the composite PAD outcome was significantly lower in the Insulin Sensitizing v Insulin only arm:
16.9 vs. 24.1%, P = 0.001
UAB Study

- Impact of glycemic control (HbA1c) and choice of diabetic control regimen on amputation and amputation free survival (AFS).

Methods

- AMP and/or Death
- Both Endo and Open Revasc
- Baseline demographics
- Co-morbidities

306 limbs

Results

Results – Kaplan-Meier

Results – Logistic Regression

Results - Amputation

Results - Logistic Regression - Amputation Free Survival (diabetic patients)

Summary/Conclusions

- The diagnosis of diabetes:
  - Increased overall mortality
  - Decreased Amputation free survival (AFS)
- In this small cohort of patients:
  - Trend towards higher amputation rate for HbA1c above 7% (p = 0.09).
Summary/Conclusions

- Glycemic control strategy was significantly associated with AFS
  - Most notably: Insulin-only control
- The strongest predictor of poor AFS:
  - History of Diabetes
- The modality of glycemic control impacts outcome
  - Insulin sensitizers important