Significant association between the neurological status on admission and the in-hospital risk of stroke or death after CEA and CAS


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Disclosure

Speaker name: Andreas Kuehnl

I have the following potential conflicts of interest to report:

☐ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

☒ I do not have any potential conflict of interest
Research question:

Neurological status on admission:
- Asymtomatic
- Amaurosis fugax
- TIA
- Minor stroke (mRS <3)
- Major stroke (mRS 3-5)
- Crescendo-TIA
- Stroke-in-evolution

In-hospital risk of stroke or death

Routine conditions in Germany
Methods:

Database: Statutory quality assurance registry on carotid procedures operated by the AQUA-Institute

Coverage: 2009 – 2014
99.1% of all CEA/CAS procedures in Germany

Type of study: Observational (secondary data analysis)

Statistics: Descriptive statistics
Groups: defined by neurologic status on admission
Outcome: any stroke or death until discharge

Included: 144,347 CEA and 14,794 CAS
Results: Characteristics

Distribution: Symptoms

- Symptomatic
- Asymptomatic
- AFX
- TIA
- Minor stroke
- Major stroke
- cTIA
- SIE

Distribution: Sex

Distribution: Age
Results: Side of treatment

**CEA: Side of treatment**

- Asymptomatic: 43614 left, 5267 right
- AFX: 4602 left, 10025 right
- TIA: 7000 left, 3980 right
- Minor stroke: 1011 left, 1441 right
- Major stroke: 1112 left, 1735 right

**CAS: Side of treatment**

- Asymptomatic: 4239 left, 421 right
- AFX: 377 left, 637 right
- TIA: 699 left, 652 right
- Minor stroke: 439 left, 350 right
- Major stroke: 134 left, 972 right
Results: Outcome

In-hospital risk of stroke or death
(crude risk, 95% CI)

<table>
<thead>
<tr>
<th>Condition</th>
<th>CEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptomatic</td>
<td>1.4%</td>
</tr>
<tr>
<td>AFX</td>
<td>1.2%</td>
</tr>
<tr>
<td>TIA</td>
<td>2.3%</td>
</tr>
<tr>
<td>Minor stroke</td>
<td>2.8%</td>
</tr>
<tr>
<td>Major stroke</td>
<td>4.4%</td>
</tr>
<tr>
<td>cTIA</td>
<td>4.8%</td>
</tr>
<tr>
<td>SIE</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

In-hospital risk of stroke or death
(crude risk, 95% CI)

<table>
<thead>
<tr>
<th>Condition</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptomatic</td>
<td>1.7%</td>
</tr>
<tr>
<td>AFX</td>
<td>1.0%</td>
</tr>
<tr>
<td>TIA</td>
<td>4.1%</td>
</tr>
<tr>
<td>Minor stroke</td>
<td>4.1%</td>
</tr>
<tr>
<td>Major stroke</td>
<td>5.4%</td>
</tr>
<tr>
<td>cTIA</td>
<td>5.2%</td>
</tr>
<tr>
<td>SIE</td>
<td>11.7%</td>
</tr>
</tbody>
</table>
Conclusion:

In Germany, under everyday conditions, more severe neurological symptoms on admission are associated with higher in-hospital risk of stroke or death after CEA or CAS.

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