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Systematic review of stroke/death after CEA/CAS in administrative dataset Registries: Outcomes not as good as in RCTs

I have no conflicts of interest

 strokes prevented per 1000 CEAs @ 5 years

 strokes prevented per 1000 CEAs @ 5 years

 Stroke/Death Rates Following Carotid Artery Stenting and Carotid Endarterectomy in Contemporary Administrative Dataset Registries: A Systematic Review

2007 – 2014
21 Registries published CEA and CAS outcomes
>1.5 million CEA/CAS procedures

Paraskevas EJVES 2016:51:3-12

Paraskevas EJVES 2016:51:3-12
death/stroke after CEA/CAS in ‘average risk’ asymptomatic patients

Paraskevas EJVES 2016.51:3-12

‘average risk’ symptomatic patients

CEA risks >6% in 1/18 Registries (11%)

CAS risks >6% in 13/18 Registries (72%)
CAS risks >10% in 5/18 Registries (28%)

Paraskevas EJVES 2016.51:3-12

in the ‘real world’, CAS is being performed with significantly higher procedural that are well in excess of AHA guidelines, especially in symptomatic patients

"While this is an obviously weak conclusion with regard to statistics, taking into account the doubtful usefulness of registries, it is also yet another annoying effort to bad mouth carotid artery stenting."
volume:outcome and CEA

Holt EJVES 2007;33:645

procedural risk after urgent CEA

<table>
<thead>
<tr>
<th>30-day death/stroke</th>
<th>n=</th>
<th>0-48 hrs</th>
<th>3-7 days</th>
<th>8-14 days</th>
<th>&gt;14 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden (Stroke 2012)</td>
<td>2,596</td>
<td>11.5%</td>
<td>3.6%</td>
<td>4.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>UK (2015)</td>
<td>23,235</td>
<td>3.7%</td>
<td>2.5%</td>
<td>2.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Germany (Stroke 2016)</td>
<td>56,279</td>
<td>3.0%</td>
<td>2.5%</td>
<td>2.8%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Early Outcomes After Carotid Artery Stenting Compared With Endarterectomy for Asymptomatic Carotid Stenosis

Jay Chul Cino, MD, E. Claudio Schubert, MD, PhD, Anthony S. Kim, MD, MAJ

21,678 asymptomatic patients undergoing CAS
Vascular surgeons 25% 4.1% death/stroke
Cardiologists 23% 2.6% death/stroke
Neurosurgeons 16% 3.5% death/stroke
Radiologists 12% 6.0% death/stroke
General Surgeons 7% 6.3% death/stroke
Neurologists 6% 5.8% death/stroke
median annual physician CAS volume = 1.5 (IQR 1-3)
median annual hospital CAS volume = 4