DEBATE:
Patients With High Risk ACS – Even If Elderly – Should Undergo Invasive Treatment, Usually CEA

What Percentage Of ACS Patients Should Get CEA:
It Is At Least 20%

Bruce A. Perler, MD, MBA

FINANCIAL DISCLOSURE

I Have No Financial Relationships to Disclose

Results of CEA: Axial Stenosis

<table>
<thead>
<tr>
<th>Year</th>
<th># Patients</th>
<th>% CVA/Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACAS</td>
<td>1995</td>
<td>724</td>
</tr>
<tr>
<td>ACST</td>
<td>2004</td>
<td>1,348</td>
</tr>
<tr>
<td>CREST (Ax)</td>
<td>2011</td>
<td>1,196</td>
</tr>
<tr>
<td>NIS</td>
<td>2008</td>
<td>111,684</td>
</tr>
<tr>
<td>VSGNE</td>
<td>2008</td>
<td>1,732</td>
</tr>
<tr>
<td>NSQIP</td>
<td>2009</td>
<td>5,009</td>
</tr>
</tbody>
</table>

Vascular Surgeons 1.1%

30-DAY RESULTS

<table>
<thead>
<tr>
<th>STATINS</th>
<th>NO STATINS</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>STROKE</td>
<td>1.2%</td>
<td>4.5%</td>
</tr>
<tr>
<td>MORTALITY</td>
<td>0.3%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

STATINS:
- Reduced the odds of Stroke: 3-Fold (p=.015)
- Reduced the odds of Death: 5-Fold (p=.049)


Patients: 115
- Strokes: 86%
- MIs: 99%
- Arteries: 96%
- TIs: 96%
- No procedures: 5%
- FU: 2 – 90 (mean, 64) months

Ischemic Events: 31 Patients
- 74% Within 1 Year
- CVA: 45%
- TIA: 55%
**Stroke Without Prior TIAs**

<table>
<thead>
<tr>
<th>Source</th>
<th>Prior TIAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rochester, MN</td>
<td>10%</td>
</tr>
<tr>
<td>Ontario</td>
<td>12%</td>
</tr>
<tr>
<td>Australia</td>
<td>22%</td>
</tr>
<tr>
<td>Mayo Clinic</td>
<td>35%</td>
</tr>
<tr>
<td>Oxfordshire Community Stroke Project</td>
<td>15%</td>
</tr>
<tr>
<td>UK TIA Aspirin Trial</td>
<td>23%</td>
</tr>
<tr>
<td>ECST</td>
<td>26%</td>
</tr>
</tbody>
</table>

**Cognitive Impairment**

Silent strokes linked to memory loss in elderly

Stroke, 2008

Eur J Vasc Surg, 2018

**Editorial**

*World Stroke Day 2008*

“Little Strokes, Big Trouble”

Vascular Research, MD, PhD, Editor-in-Chief

World Stroke Day is an annual event (on every year 27 October) organized by the World Stroke Organization. It is a day to raise awareness of stroke as a major global health threat.

Subclinical (silent) strokes occur five times as often as clinical (obvious) strokes and may affect thinking, mood, and personality.

CEA may be considered in fit patients with > 5 yrs. Life Expectancy & clinical or imaging features that may make them “higher risk for stroke”

- Hx contralateral TIA or CVA
- Silent Infarction of CT/MRI
- Stenosis Progression
- Large plaque area
- Large juxta-luminal plaque area
- Plaque lucency
- Intraplaque hemorrhage on MRI
- Spontaneous embolization on TCD
- Impaired cerebrovascular reserve

Asx Patients

What Percentage Of ACS Patients Should Get CEA: It Is At Least 20%

J Vasc Surg, 2010

5-Year Stroke Risk Asx Patients

Patient: 1:25

50–59% Stenosis

F/U: 6–96 (Mean, 46) Months

CORS: 130 Patients
Patients: 1,121
50–99% Stenosis
F/U: 6-96 (Mean, 48) Months
CORI: 130 Events

923 Patients: ≥ 70% ICA Stenosis

Predicted 5-Year Stroke Risk

< 5% ................. 495
5-9.9% ............... 202
10-19.9% (2-4%/yr)..... 142
≥ 20% (> 4%/yr) .... 84

226 / 923 = 25%

CONCLUSION

Identification of Vulnerable/Unstable Plaque Morphology
Will Allow Us to Select the Appropriate Patients for Intervention