WHAT IS THE ROLE OF THE VASCULAR SURGEON IN THE TREATMENT OF ACUTE STROKE

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DISCLOSURE

No financial conflict of interest to disclose

Open questions

Which is the role of the vascular specialist?

- To perform CEA!!!
- To perform CAS?
- To help in making an etiologic diagnosis/carotid plaque characterization?
- To take part in brain revascularization?
- To take part in timely decision making?

CEA IN STROKE PATIENTS

When?

Summary of Evidence on Early Carotid Intervention for Recently Symptomatic Stenosis Based on Meta-Analysis of Current Risks

De Rango et al.
Stroke 2015

Systematic literature review up to 8 years
periprocedural stroke/death after CEA and CAS related to the time between qualifying neurological symptoms and intervention

Perioperative stroke %
Perioperative stroke&death %

0-15 days
All pts
3.36
3.80
TIA pts
1.64
1.86
Stroke pts
4.99
4.94

0-7 days
All pts
3.25
3.61
TIA pts
1.51
1.87
Stroke pts
5.31
5.55

0-2 days
All pts
5.26
5.75
TIA pts
2.74
2.78
Stroke pts
7.95
8.44

De Rango et al. Stroke 2015

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What is the adjunctive risk in very early CEA?

Reperfusion of brain zones with loss of autoregulation

Hyperperfusion

Hemorrhagic conversion of acute infarct

ICH occurrence

- rtPA (short half-life, prolonged effect)
- Antiplatelet therapy
- Reperfusion injury after CEA

Safety of carotid endarterectomy following thrombolysis for acute ischemic stroke

Table II. Data of eight series included in pooled data analysis and systematic review

<table>
<thead>
<tr>
<th>Study</th>
<th>rtPA</th>
<th>Non-rtPA</th>
<th>rtPA vs. Non-rtPA</th>
<th>rtPA &amp; CE</th>
<th>Non-rtPA &amp; CE</th>
<th>rtPA vs. Non-rtPA &amp; CE</th>
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</thead>
<tbody>
<tr>
<td>Diem, 2010</td>
<td>14.5 (5.7)</td>
<td>15 (6.2)</td>
<td>0.125</td>
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ICH risk with time (7 days)
Is time the only factor that matters?

Very Urgent Carotid Endarterectomy Does Not Increase the Procedural Risk

<table>
<thead>
<tr>
<th>Time (days)</th>
<th>Amnestic 804</th>
<th>Major stroke 111</th>
<th>Minor stroke 217</th>
<th>N/A 8</th>
<th>Amnestic 804</th>
<th>Major stroke 111</th>
<th>Minor stroke 217</th>
<th>N/A 8</th>
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</thead>
<tbody>
<tr>
<td>0-2</td>
<td>1</td>
<td>1</td>
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<td>N/A</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>N/A</td>
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<tr>
<td>8-14</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>15-180</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>N/A</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>N/A</td>
</tr>
</tbody>
</table>

1 ICH out of 148 pts (0.6%)
3/804 (0.3%)
5/677 (0.7%)
2/967 (0.2%)

BRAIN RESPONSE TO INSULT AND TX

Response to every treatment is influenced by:
- Brain ischemia localization
- Brain ischemia volume
- Ischemic penumbra volume
- Collaterals
- Autoregulation

Open questions

Which is the role of the vascular specialist?

- To perform CEA!!!
- To perform CAS?
- To help in making an etiologic diagnosis/carotid plaque characterization?
- To take part in brain revascularization?
- To take part in timely decision making?
### Open questions

**Which is the role of the vascular specialist?**

- To perform CEA!!!
- To perform CAS?
- To help in making an etiologic diagnosis/carotid plaque characterization?
- To take part in brain revascularization? (hopefully)?
- To take part in timely decision making?
Why not a vascular surgeon in the future?

Open questions

Which is the role of the vascular specialist?

- To perform CEA!!!
- To perform CAS?
- To help in making an etiologic diagnosis/carotid plaque characterization?
- To take part in brain revascularization?
- To take part in timely decision making

CONCLUSIONS

Carotid disease should be taken into account when evaluating stroke treatment strategy

Stroke treatment is more and more a multidisciplinary work

Thanks for your attention