Update On The Status Of ACST-2 comparing CEA And CAS In ACS patients: Devices Used, Medical Treatments

Session 80 11:41 AM - 11:46 AM
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No Disclosures

Treatment for asymptomatic carotid artery stenosis: surgery or stenting?

Stenting might be better than CEA – no incision, quick discharge, no cranial nerve damage...
patients won’t want open surgery if stenting is safe but we don’t know yet....

ACST-2
A very European Trial

Falling risks from CEA and CAS
- Reduced procedural risk for CEA (Statins)
- Reduced procedural risks for CAS...
Techniques, devices, experience have all changed since the symptomatic trials...

Now - FLOW-reversal systems, direct puncture, membrane stents....

**Open vs closed-cell stent design**
Closed–cell safer?

**the ACST-2 research question.**
For asymptomatic patients with tight stenosis requiring intervention:

**Which procedure** is generally better (in addition to good medical treatment)?

- carotid surgery (CEA)
- carotid stenting (CAS)

**ACST-2 directly compares CEA vs CAS**

if arch imaging shows patients are suitable for *both* procedures
- then randomise

**Inclusion Criteria – centre-based**

*You* decide which patients are suitable for *BOTH* procedures

(then randomise)

Different centres, different criteria, makes for heterogeneous population

**ACST-2: Experienced collaborators**

207 centre/operators’ experience to 2014:
(73 do both procedures)

<table>
<thead>
<tr>
<th></th>
<th>CEA</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total procedures</strong></td>
<td>118,287</td>
<td>45,693</td>
</tr>
<tr>
<td><strong>Median Experience [Years]</strong></td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td><strong>Median Procedures/operator</strong></td>
<td>346</td>
<td>150</td>
</tr>
</tbody>
</table>

**ACST-2 Stents**

<table>
<thead>
<tr>
<th>Type</th>
<th>Wallstent (207)</th>
<th>Cristallo Ideale (153)</th>
<th>Abbott Xact (112)</th>
<th>Cordis Precise (110)</th>
<th>Ev3 Protégé® RX (87)</th>
<th>Abbott RX Acculink (87)</th>
<th>Boston Adapt (10)</th>
<th>Sinus (10)</th>
<th>VIVEXX (7)</th>
<th>Twin One (3)</th>
<th>Roadsaver (6)</th>
<th>Inspire (5)</th>
<th>Mer (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protection Devices</strong></td>
<td>Emboshield (202)</td>
<td>Filterwire (159)</td>
<td>Filter</td>
<td>Mo. Ma (113)</td>
<td>Spider (111)</td>
<td>Accunet (57)</td>
<td>AngioGuard (42)</td>
<td>Gore Flow Reversal (28)</td>
<td>Prox occ</td>
<td>Distal balloon</td>
<td>FilterNet (1)</td>
<td>Filter</td>
<td>(87% total)</td>
</tr>
</tbody>
</table>
**ACST-2: CEA vs CAS**

*Sex, Age, Co-morbidities:*

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>70%</td>
</tr>
<tr>
<td>Mean age</td>
<td>72 years</td>
</tr>
<tr>
<td>Ischaemic heart disease</td>
<td>36%</td>
</tr>
<tr>
<td>Diabetic</td>
<td>30%</td>
</tr>
<tr>
<td>Renal impairment</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Stroke risk factors:**

- Atrial Fibrillation: 6%
- Age >75 yrs: 39%
- Previous stroke symptoms or infarct: 43%

**Medical Treatments:**

- BP drugs: 85%
- Lipid-lowering: 86%
- Anti-thrombotic: 99%
  - good compliance with drug therapy after joining
  - direct patient feedback every year
    (includes drug names and doses)

**ACST-2: Blinded Procedural hazards**

1500 patients (≤ 30 days)

Disabling/fatal stroke or fatal MI much lower than in symptomatic trials

- Lower than ACST-1 (CEA) 1.7%

Despite increasing age, and more risk factors for stroke compared with ACST-1;

- ACST-2 procedural risk (CEA and CAS) 1.0%

**Drug therapy at entry in ACST-2**

- 99% anti-thrombotic
- 88% anti-hypertensive
- 85% lipid-lowering

- compliance with drug therapy seems good
- direct patient feedback every year
  (includes drug names and doses)

**Drug therapy at 2015 follow up**

- Antithrombotic (aspirin, asasantin, clopidogrel, single, dual APT, warfarin, NOAC) 94%
- BP Medications (1-3 drugs, none) 87%
- Lipid-lowering (specific drugs/doses) 86%

**ACST-2 - Target 3600 patients – to 2019**

![Cumulative Recruitment Graph]
......Is CEA/CAS Equipoise For ACS Being Supported
ACST-2 is designed to test superiority
We plan to recruit 3600 patients with follow up for 5-10 years
(Current mean follow up is 2.3 years)

Annual Data Monitoring Committee – 2015
Trial should continue and commends the collaborators on their increased recruitment