CREST 2
Will It Incorporate Recent Advances in CAS?
TCAR and Mesh Covered Stents

Jeffrey Beecher, DO
Endovascular Fellow

L. Nelson Hopkins MD FACS
SUNY Distinguished Professor
Neurosurgery and Radiology
Founder, Gates Vascular and Jacobs Institute

Disclosure Statement of Financial Interest

Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.

<table>
<thead>
<tr>
<th>Affiliation/Financial Relationship</th>
<th>Company</th>
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<tr>
<td>Grant/Research Support</td>
<td>Toshiba, Medtronic, Microvention</td>
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<tr>
<td>Consulting Fees/Honoraria</td>
<td>None</td>
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<tr>
<td>Major Stock Shareholder/Equity</td>
<td>Claret, Boston Scientific, Ostial, Apama, Ocular, Silk Road, The Stroke Project</td>
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<td>Royalty Income</td>
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<td>Ownership/Founder</td>
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<td>Intellectual Property Rights</td>
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<td>Other Financial Benefit</td>
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Devices Allowed in Randomized CREST II

- Must be FDA approved
- Must be approved by Interventional Management Committee
- Must have significant clinical experience
Devices Not Yet Allowed in Randomized Patients

- Silk Road
- Mesh Covered Stents

Major drawback of CAS is distal emboli
- Clinical proof: more Strokes
- Imaging proof: DWI HITS

Emboli occur:
- From the aortic arch
- Brachiocephalic and Ostial disease
- Carotid tortuosity
- Crossing the lesion
- Stent deployment and angioplasty
- Post procedure

Emboli… the Enemy
We Must Stop Embolization During CAS

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Timing of Stroke After Carotid Revascularization: CAS vs. CEA

Circulation 2012;126:3054-3061

For Stroke During CAS...
Trans Carotid Artery Revascularization (TCAR)
FLOW REVERSAL
- FDA approved
- Not approved for CREST 2

Flow is Reversed

For Stroke after CAS...
Mesh Covered Stents
- Mesh to contain plaque
- Not FDA approved yet
- Not approved for CREST
- FDA approval ➔ CREST II
Mesh Covered Stents

Conclusions

CAS continues to evolve

Implications for CREST II Concerning

What we need for CAS...
1. New technology
2. More operator experience and judgment

Thank you!