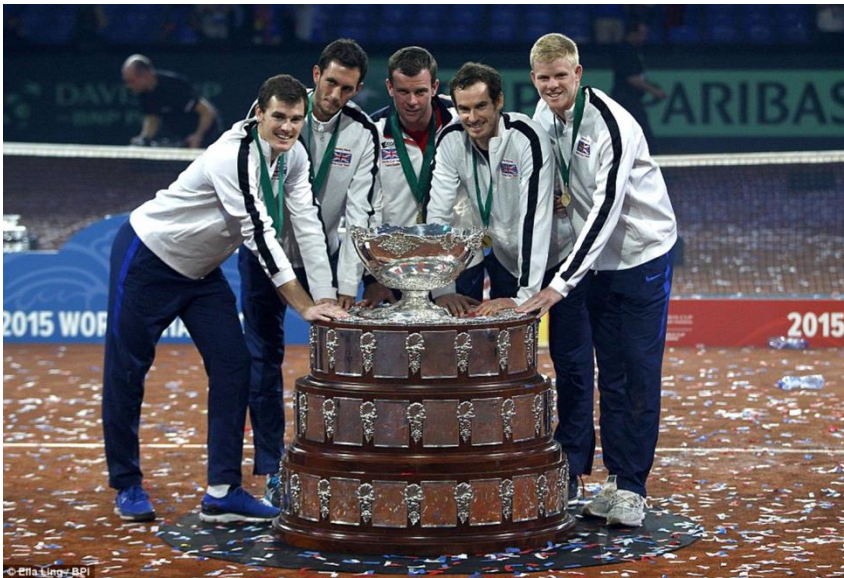


Great Britain vs Serbia

Davis Cup Quarter Finals: July 2016



ACT-1 Results & CREST-1 Long-term Follow-up

Richard Bulbulia
Co-PI ACST-2

ACST-2 Collaborators Meeting
Belgrade
21st April 2016

ACT-1

1453 asymptomatic patients (US)

Randomised to CAS vs CEA (3:1)

Recruitment: 2005-2013 (Stopped - poor enrolment)

Xact stent with embolic protection (Funder: Abbott)

5 year results available

ACT-1: Peri-procedural results

| | CAS (1089) | CEA (364) | P Value |
|------------------------|------------|-----------|---------|
| Death, Stroke, MI | 3.3% | 2.6% | 0.60 |
| Death and Major Stroke | 0.6% | 0.6% | 0.33 |
| | | | |
| All Stroke | 2.8% | 1.4% | 0.23 |
| Major Stroke | 0.5% | 0.3% | 1.00 |
| Minor Stroke | 2.4% | 1.1% | 0.20 |
| | | | |
| MI | 0.5% | 0.9% | 0.41 |

1. No significant difference for the primary outcome
2. Stroke rate doubled in CAS, driven by excess of minor strokes
3. MI rate doubled in CEA

ACT-1: 5-year post-procedural results

Following a successful carotid procedure, both CEA and CAS appeared to offer similar durability

Ipsilateral stroke rate: 2.2% CAS vs 2.7% CEA (P=0.51)

CREST-1

- 2502 patients (symptomatic and asymptomatic)
- Randomised to CEA vs CAS
- Recruitment: 2000-2008 in USA and Canada
- RX Acculink stent (with embolic protection)
- CEA and CAS were similar for primary outcome at 4 years (peri-procedural stroke, MI or death plus post-procedural ipsilateral stroke)
- 10-year follow-up now available

CREST-1: Long-term Results

83 post-procedural ipsilateral strokes over 10 years

| | | Events | Rate (%) | HR (95% CI) | P Value |
|-------|-----|--------|----------|------------------|---------|
| Total | CAS | 42 | 6.9 | 0.99 (0.64-1.52) | 0.96 |
| | CEA | 41 | 5.6 | | |
| | | | | | |
| Major | CAS | 12 | 2.7 | 1.91 (0.71-5.10) | 0.20 |
| | CEA | 6 | 1.1 | | |
| | | | | | |
| Minor | CAS | 30 | 4.2 | 0.83 (0.51-1.34) | 0.44 |
| | CEA | 35 | 4.5 | | |

CREST-1: Long-term Results

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Suggests equal durability for both CEA and CAS

CREST-1 Long-term Follow-up

5 year ipsilateral stroke rates by symptom status

| | Symptomatic (95% CI) | Asymptomatic (95% CI) |
|------------|-----------------------------|------------------------------|
| CAS | 2.5% (1.2-3.7) | 2.5% (1.1-3.8) |
| CEA | 2.7% (1.9-4.9) | 2.7% (1.8-4.9) |

Similar long-term stroke rates in both types of patient,
and similar to the 5-year results in ACT-1

ACST-2 remains highly relevant

ACT-1 results are non-informative

CREST-1 suggests equivalence for CAS and CEA,
But CI wide (0.64-1.52)

ACST-2 will triple the evidence base for CEA vs CAS in asymptomatic patients, and help guide / change practice

ACST-2 Time Line

April 2015: 2159 randomised

End 2019: Randomise 3600 patients
Median follow-up of 5 years

**Early 2020: Report peri-procedural (ie, early) risks
and 5 year follow-up results**

*IPD with CREST-1, ACT-1 and SPACE-2 by CSTC
6000 participants will allow meaningful subgroup analyses*

**Mid 2025: Report 10-year follow-up results
Reliably compare durability of CEA vs CAS**

NB: Long-term follow-up via postal questionnaires continues

Please keep randomising!



Uncertainty



Reliable Evidence