CAS Early After Symptom Onset Can Be Safe Under Certain Circumstances And With Specific Technical Precautions

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Disclosure

Inventor of “Mo.Ma and Piton”

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Time is Brain

- Reduced time “from Diagnosis to Treatment”
- More rapid activation-time of Rad. Suite vs OR
- None or low anesthesiological involvement
- Low relevance of the surgical risk
- Faster procedure vs CEA
- Low invasivity preferred by patients
- Possible associated neurorad. procedure

BUT... IN THE RANDOMIZED CLINICAL TRIALS CAS INFERIOR TO CEA (mainly in symptomatic patients)

What tell us today the CAS vs CEA CRTs?

- Rationale of CAS in emerging setting
- Insufficient selection only filters (or nothing) as EPD outdated tools
- What tell us today the CAS vs CEA CRTs?
- If we continue to perform CAS as in the “old” RCTs we will have the same results
- RCTs

FOR A SAFE CAS EVEN IN ACUTE SETTING: 5 NEW RULES

RULE V: protection from early post-procedural emboli

MULTIFACTORIAL ASPECTS STILL IN EVOLUTION

- EARLY POST PROCEDURE TIME: Alleged of > 50% of CAS NEUROLOGICAL COMPLICATION (Stanenes, Capture registry 2007)

- RULE V: protection from early post-procedural emboli
- MULTIFACTORIAL ASPECTS STILL IN EVOLUTION
- EARLY POST PROCEDURE TIME: Alleged of > 50% of CAS NEUROLOGICAL COMPLICATION (Stanenes, Capture registry 2007)
ACUTE CAS: our experience

January 2009 – June 2015

Results With FIVE Rules

in comparison with CEA

Demographic data & symptoms CAS (147 pts) CEA (157 pts) Total (304 pts)

- **Males**
  - CAS: 118
  - CEA: 119
  - Total: 237
- **Females**
  - CAS: 29
  - CEA: 38
  - Total: 67
- **Average age**
  - CAS: 77 (min. 50 – max. 88)
  - CEA: 67.5 (min. 43 – max. 82)
- **TIA’s within the 12 hours**
  - CAS: 60
  - CEA: 51
  - Total: 111
- **Crescendo TIA’s**
  - CAS: 41
  - CEA: 65
  - Total: 106
- **Minor stroke**
  - CAS: 39
  - CEA: 37
  - Total: 76
- **Major stroke**
  - CAS: 7
  - CEA: 4
  - Total: 11

Immediate Results

- **Technical success**
  - CAS: 100%
  - CEA: 100%
  - Total: 100%
- **Death**
  - CAS: 0
  - CEA: 0
  - Total: 0
- **Worsening NIHSS**
  - CAS: 1.7%
  - CEA: 1.2%
  - Total: 7.7%
- **MI**
  - CAS: 1 pt
  - CEA: 0 pt
  - Total: 1 pt
- **Local complications**
  - CAS: 2 pts
  - CEA: 2 pts
  - Total: 4 pts

**The rationale**

In Stent balloon inflation = cutting balloon effect and plaque fragmentation (risky mainly in vulnerable and unstable plaques)

**Dilation First:** Preliminary Results in 27 Cases

- **Percentage of visible debris in filter of MOMA aspirated blood**
  - **Dilation First:**
    - MES Reduction: 54%
    - DEBRIS AFTER USUAL POSTDILATION: 3.7%
  - **TCD comparison od MES of regular dilation Vs dilation first**
    - Dilation first: MES Reduction
    - Lesser MES

In conclusion

- The CAS, mainly acute has a bad reputation based on outdated RCTs
- After THEM, the experience and the examination of failures give suggestions how to improve the results
- With renewed tools, techniques and procedures it is now possible to have results comparable and even better than CEA's also in acute setting

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