Centralization vs Proctoring: Comparison of Results

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Disclosures

• Proctor for Cook
Back-ground

Advantages of Proctoring

- Helping other Centres to acquire Experience
- Networking
- Cooperation with Cook
- Helps with personal Learning Curve
Back-ground
Issues with regard to Proctoring

• Team: diversity in experience and eagerness
• Hard-Ware: variable quality
• Materials: different or lacking...
• Surgical bail-out: not always guaranteed
• Post-op Care: less protocolized/experience
Personal Experience (selected)  
Pararenal + TAAA

• Total: N=796
  – Nuremberg: N=527 (66.2%)
  – Proctored: N=269 (33.8%)
Evaluation

• Time-event parameters

• Mortality

• Morbidity
  – Dialysis
  – SCI
Prognosis

- Time-event parameters: +++
- Mortality: +
- Morbidity:
  - Dialysis: ++
  - SCI: +
Comparability of Groups
Patient Risk Profile

• Mean ASA Score
  – Nuremberg: 2.72
  – Proctored: 2.51 \( P<0.001^* \)
Graft Configuration

- Mean N of Fenestrations/Branches
  - Nuremberg: 3.5/pt
  - Proctored: 3.4/pt  P=0.8 NS
Type II TAAA

- Nuremberg: 59/232 (25.4%)
- Proctored: 32/115 (27.8%)  \( P=0.7, \text{ NS} \)
Acute Cases

• Nuremberg: 21/527 (4%)

• Proctored: 5/269 (1.9%)  P=0.07
Previous Aortic Surgery

- Nuremberg: 149/527 (28.3%)
- Proctored: 54/269 (20.1%)  \( P=0.007^* \)
Results
Time Events

Mean Operation Time

• Nuremberg
  – 186 ± 79 min

• Proctored
  – 220 ± 73 min

(P<0.001)*
Time Events

Mean Fluoroscopy Time

• **Nuremberg**
  – $57 \pm 26$ min

• **Proctored**
  – $67 \pm 27$ min

($P < 0.001$)*
Time Events

Mean Contrast Volume

• Nuremberg
  – 163 ± 64 ml

• Proctored
  – 182 ± 67 ml

(P<0.001)*
Time Events

Mean Estimated Blood Loss

- **Nuremberg**
  - 340 ± 320 ml

- **Proctored**
  - 450 ± 350 ml

\[(P=0.001)\]
Technical Success

- Nuremberg: 512/527 (97.2%)
- Proctored: 257/269 (95.5%)  P=0.3
30-d Mortality

- Nuremberg: 20/527 (3.8%)

- Proctored: 9/269 (3.3%) P=0.8
Perioperative Dialysis

- Nuremberg: 5/527 (0.9%)
- Proctored: 3/269 (1.1%)  P=0.6
Perioperative SCI
TAAA

• Nuremberg: 21/232 (9.1%)
  – Permanent Paraplegia: 5/232 (2.2%)

• Proctored: 14/115 (12.2%)
  – Permanent Paraplegia: 3/115 (2.6%)  P=0.4
Early Reintervention

- Nuremberg: 10/527 (1.9%)

- Proctored: 8/269 (3.0%)  P=0.3
Composite Outcome
Mortality/SCI/Dialysis

• Nuremberg: 46/527 (8.7%)

• Proctored: 26/269 (9.7%)  P=0.4, NS
Summary

• Nuremberg vs Proctored Cases
  – ↓↓↓ OR & Fluoroscopy time, Contrast Volume, Blood loss
  – Similar 30d Mortality
  – Similar Technical Success
  – Similar SCI & Early Reinterventions
Confounding Factors

• No learning curve included

• Patient selection Bias
  – More redo cases in NUE
  – ↑ Risk (ASA Score) in NUE

• Risk for missing complications’ data from proctored cases...
Take Home Message

• Proctoring seems safe overall

• Prerogative: aim for best possible organisation
  – Intraoperative
  – Postoperative
Join the discussion on advances in endovascular aortic treatments and meet noted interventional radiologists, vascular surgeons and cardiologists in a unique interdisciplinary setting.

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