HOW TO MAINTAIN PROFICIENCY IN OPEN and ENDOVASCULAR PROCEDURES

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VEITH MEETING, NOVEMBER 2017

PROFICIENCY IN VASCULAR PRACTICE

CLINICAL OUTCOMES

Results
Prevention of major adverse events

PATIENT SAFETY AND SATISFACTION

COST - EFFECTIVENESS

QUALITY OF CARE

PROFICIENT VASCULAR SPECIALIST

LEADERSHIP IN A MULTI - PROFESSIONAL TEAM

- NON-INVASIVE TECHNOLOGISTS
- VASCULAR NURSING / PARAMEDIC PRACTITIONERS WITH INCREASED ROLE
- MULTIDISCIPLINARY COOPERATION
- ADEQUATE SELECTION OF PATIENTS – AVOIDANCE OF UNNECESSARY PROCEDURES
- CAPACITY TO PROMOTE PATIENT - TAILORED TREATMENT
- NETWORKING WITH REFERAL CENTRES FOR COMPLEX PROBLEMS

MODERN VASCULAR PRACTICE

OPEN SURGERY 10 -30 %
ENDOVASCULAR 60- 80 %
HYBRID PROCEDURES ~ 5 – 10 %

PATIENT – TAILORED TREATMENT

DISCLOSURES:

Travel grants from Cook, Medtronic, Gore, Bayer, Servier, Pierre Fabre,
Consultant Fees from Sanofi and BMS (1995 - 98)
CLI: Revascularization

Open Surgery: Endovascular

A.A.C.J., Male, 78 yrs
Type II TAAA Post-dissection
Progressive enlargement of TAAA 9 cm
High risk for open surgery

Supra aortic debranching:
Bypass RCC-LCC + bypass Graft – LSIA – (Dacron 8mm)

Abdominal debranching:
Bypass SMA – Coeliac hepatic artery (Dacron 8mm)

First Post-op. day
Respiratory arrest - glottis edema
Placed on ventilatory support + methylprednisolone
Kept intubated tube until the 2nd surgery

Complex endovascular procedure
2 Thoracic endografts
Fen. Thoracoabdominal graft (SMA + LRA + IMA)
AAA bifurcated graft
Placement of CSF drainage catheter before the surgery

ICU for 4th - First post-op day

Evaluation
CSF drain occlusion – Left lower limb weakness
Drain replacement – active drainage
Complete reversal of neurological

Control CT Scan

A.A.C.J., Male, 78 yrs

AORTIC ANEURYSMS

WILL SIMULATION BE SUFFICIENT?

HOW TO INCREASE EXPOSURE TO OPEN VASCULAR REPAIR?

HOW TO MAINTAIN PROFICIENCY?

HOW TO OVERCOME THE PRESENT CONSTRAINTS FOR EDUCATION IN OPEN REPAIR?
Performance metrics improve with simulation training.

Successful translation to in vivo situations is observed in patient specific procedure rehearsals and RCT’s on real procedures.

No level I evidence to confirm predictive validity of simulation on improving patient outcomes.

Further studies required to prove superiority of simulation to traditional training in operative theatre.
OSATS scores improved in or after simulation training in 80% trials.

Improvement on the following parameters:

- Team Leadership: use of assistants
- Knowledge of the procedure
- Economy of movement
- Error scores
- Instrument handling
- Overall performance

Simulation-based training has a positive impact on performance measurements in the OR. Critical aspects of skill transfer not yet demonstrated in the live setting.

Maintenance of Proficiency

Educational programs

Advanced simulation (open and endo procedures)

Experience: case volume is essential

- Individual / institutional

Organization of care

Organization model for provision of vascular services

Vascular center 24h / 7d

Experience: 2-way traffic of patients / surgeons

Centre for complex open repair

Demography adjustment (1/1.5 000 000 persons)

J. L. P., male, 52 yrs

M. T. F., female, 78 yrs

Asymptomatic TAAA type IV w/ 6.6 cm.

Maintenance of Proficiency

- Open and Endovascular skills should also be developed in simulators before starting with patients.
- Simulation important to assess competence and useful to plan for more complex cases.
- However, Simulators DO NOT REPLACE clinical and surgical experience.
  - But they improve learning curves!

- Organization of vascular centres
  - Adequate volume of patients
IMPACT OF SIMULATION:

ATTITUDE

DECISION - MAKING

LEADERSHIP

CAPT. C. SULLENBERGER:

HUGE FLIGHT EXPERIENCE

PROFICIENT VASCULAR SPECIALIST

CORE VASCULAR ACTIVITY

Vascular Medicine
Management of common disorders:
- Carotid disease
- AAA repair
- PAD and CLI
- Vascular Trauma
- Chronic Venous Insufficiency

PROFICIENT VASCULAR SPECIALIST

SPECIALIZED VASCULAR ACTIVITY

COMPLEX AORTIC ANEURYSMS
- Aortic Arch and Descending Aorta
- TAAA
- SR / PR / JR Aortic Aneurysms

AORTIC DISSECTION

VISCERAL ARTERIAL DISEASE AND RARE DISORDERS