How Fusion Imaging changed my Workflow for FEVAR

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Hybrid OR has become the Standard of Care in EVAR

- Sterile environment
  - Open access
  - Hybrid Procedures
  - Conversion
- Safer environment
- Team
- Logistics
- OR-lights
- Fusion Imaging

Fusion Imaging

- Less contrast media
- Less radiation
- Shorter OR time

Fusion Technology

2D/3D Registration
Evolution of Fusion Technology from manual.....

Case Presentation

- 66 YO Male
- Juxtarenal AAA
  - Dmax: 61mm

- Co-morbidity
  - CAD (CABG)
  - COPD

→ No Proximal neck

2 Right Renal Arteries (RRA)

Open Inferior Mesenteric Artery
Distal Landing Zones and Access Vessels

Plan

- Embolisation IMA + lower RRA
- 3x FEVAR

Embolisation IMA + lower RRA

Preparation of pre-op CT

Automated Segmentation

Patient preparation
2D/3D registration

Automated registration

Manual correction

Catheterization LRA and RRA

Catheterization SMA
Completion aDSA

Closing access

High quality Fluoro only when really needed

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High contrast Fluoro
32 mGy/min*

Low dose fluoro
2 mGy/min **

• 55 nGy/pulse, 10 Pulse/sec
• 23 nGy/pulse, 4 Pulse/sec

DSA only when really needed

Conclusions

• Do not forget ALARA principles
  – Pulse Fluoro and Collimation
  – Fluoro w. contrast instead of aDSA

• Fusion imaging
  – Automated workflow with syngo EVAR guidance
  – To be included in Standard of Care

• PS Radiation in this case: DAP of 27 Gy/cm²

Low dose DSA
321mGy/min

Fluoro w. contrast
12 mGy/min