Case 26 Münster 2: male, 71 years (F-M)

EVAR imaging innovations for a safer treatment

Operators: M. Bosiers, M. Austermann
Case 26 Münster 2: male, 71 years (F-M)

- Clinical data:
  - Rapid growing infrarenal AAA (42-53 mm in 6 months)

- Risk factors:
  - CAD: PTCA 2018
  - Art. Hypertension
  - Diabetes
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- Procedural steps:
  1. Percutaneous access
  2. Imaging with Artis icono (Siemens)
  3. EVAR TREO (Terumo)
  4. Reliant Balloon (Medtronic)
  5. Groin closure (ProstarXL, Abbott)
Technical aspects to reduce radiation
Image guidance automatically according to the ALARA* principle

The surgeon defines
• the material for contrast optimization
• the image quality level for the procedure step

**The OPTIQ algorithm**
finds the best imaging parameter for the required image quality level automatically and independent of the clinical situation

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*As low as reasonably achievable (ALARA)* is a principle of radioprotection stating that whenever ionizing radiation has to be applied to humans, animals or materials exposure should be as low as reasonably achievable. It is fundamental to the principles of radiation protection.
Technical aspects to reduce radiation for DSA by 90%

Dose/min : 6,5 Gy cm² *

Dose/min : 71 Gy cm² *

• * Measured with water phantom that simulates the typical patient load, same FOV and framerate
Technical aspects to reduce radiation for Fluoro by 40%

Dose/min : 1.35 Gy/cm² *

With reduced framerate even 0.48 Gy/cm² possible

Dose/min : 2.23 Gy/cm² *

* Measured with water phantom that simulates the typical patient load, same FOV and framerate
First clinical results

Gycm²

ARTIS (old)  ARTIS icono
Standardization enabled by Case Flows

One Click instead of 6 Clicks
Integrated Fusion Imaging

Automated segmentation of Aorta and branching vessels

Centerlines

Ostia rings with optimal angulation

Landingzones