Accurate Endograft Placement: Orthogonal Device Placement in Angulated Aortic Necks

Jos C. van den Berg, MD PhD
Ospedale Regionale di Lugano, sede Civico
Lugano
Switzerland
Conflict of interest

- None
Accurate endograft placement

• Plan ahead
  – Neck length
  – Neck angulation
  – Neck diameter

• Avoid parallax

• Optimize angulation of C-arm
Planning-true neck length

12.6 mm  17.2 mm  23.8 mm

van Keulen JW et al JVS 2010;52:1081-1086
Planning-true neck angulation

Correction for rotation around length-axis of patient

van Keulen JW et al JVS 2010;51:821-828
Planning - true neck angulation

Additional correction for rotation around CLL

van Keulen JW et al JVS 2010;51:821-828
Planning-true diameter

van Keulen JW et al JVS 2010;52:1081-1086
Planning-true diameter
Planning - true diameter

Asymmetric stentgraft placement

van Keulen JW et al JVS 2010;52:1081-1086
Parallax is an apparent difference or displacement in the position of an object when viewed along two different lines of sight.

The term "parallax" is derived from the Greek word parallaxes which means "alteration"
Parallax error
Reduce parallax error
Reduce parallax error
Reduce parallax error
Reduce parallax error
Optimize angulation C-arm
Optimize angulation C-arm

van Keulen JW et al JVS 2010;52:1081-1086
Optimize angulation C-arm

van Keulen JW et al JVS 2010;52:1081-1086
Optimize angulation C-arm

Walker TG et al AJR 2012;198:200-206
Optimize angulation C-arm
Optimize angulation C-arm
Optimize angulation C-arm
Reduction angulation
Reduction angulation
Additional tricks

• Choice of access site (functional neck length)

van Keulen JW et al JVS 2010;52:1081-1086
Conclusions

• Plan ahead
  – Neck length
  – Neck angulation
  – Neck diameter

• Avoid parallax

• Optimize angulation of C-arm
Conclusions

• Plan ahead
  – Neck length
  – Neck angulation
  – Neck diameter

• Avoid parallax

• Optimize angulation of C-arm

• Failing to plan is planning to fail
Accurate Endograft Placement: Orthogonal Device Placement in Angulated Aortic Necks

Jos C. van den Berg, MD PhD
Ospedale Regionale di Lugano, sede Civico
Lugano
Switzerland