Flash presentation:
Is there a value of OCT-imaging during CAS?

One step beyond

Bernhard Reimers, Mirano, Italy
The importance of OCT Imaging of the Carotid Plaque:

- to diagnose a stenosis: NO
- to detect plaque quality
- for the strategy of the intervention
  - vessel diameters/lesion length
  - device selection
- to evaluate the result
  - of the procedure
  - of the devices
The importance of OCT Imaging of the Carotid Plaque:

- to diagnose a stenosis
- to detect plaque quality: YES
- for the strategy of the intervention
  - vessel diameters/lesion length
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Carotid OCT before CAS

Symptomatic ICA ; occluded ECA

Symptomatic & soft plaque : go for closed cell stent design
The importance of OCT Imaging of the Carotid Plaque:

- to diagnose a stenosis
- to detect plaque quality
- for the strategy of the intervention: YES
  - vessel diameters/lesion length
  - device selection
- to evaluate the results
  - of the procedure
  - of the devices
diameter 5.64 mm; area 21.80 mm$^2$

length
The importance of OCT Imaging of the Carotid Plaque:

- to diagnose a stenosis
- to detect plaque quality
- for the strategy of the intervention
  - vessel diameters
  - device selection
- to evaluate the result: YES
The importance of OCT Imaging of the Carotid Plaque:

- to diagnose a stenosis
- to detect plaque quality
- for the strategy of the intervention
  - vessel diameters
  - device selection
- to evaluate the result: probably the most important application of carotid OCT
OCT with proximal protection (Mo.Ma or GORE EPS)

Gentle, hand-injection of 10cc 50% diluted saline/dye. When OCT image ok: 3 sec (50 mm pullback)

Advance short monorail C7 dragonfly OCT catheter

Re-aspirate injected dye
Closed cell (Exact, Abbott) stent in symptomatic patient
OCT: First impressions

Open cell struts

Closed cell struts
Plaque rupture

Rupture of plaque
Plaque prolaps

- Gore NPS
- Balance MiddleWeight wire
- Predilatation with Maverick 2.5 x 20 mm
- Stent 6-8 x 40 mm
- Postdilatation with Sterling 5 x 20 mm at 10 atm
Plaque prolaps

Flow artefact
(covers struts)

Symmetric, regular, closed cell struts

Plaque prolapse
(through struts)

Reimers et al., Mirano
OCT: First impressions

Not complete CCA apposition
Mesh covered stents

GORE® Carotid Stent

Terumo® Carotid Stent
91 years old lady with minir stroke 2 days earlier: Mo.Ma & C Guard
Terumo® Carotid Stent Roadsaver

Courtesy: A Cremonesi
Courtesy: A Cremonesi
OCT for Carotids:

- a very useful scientific tool
  - to correlate plaque quality & outcome
  - to evaluate CAS results
  - to evaluate different stents

Thank You
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