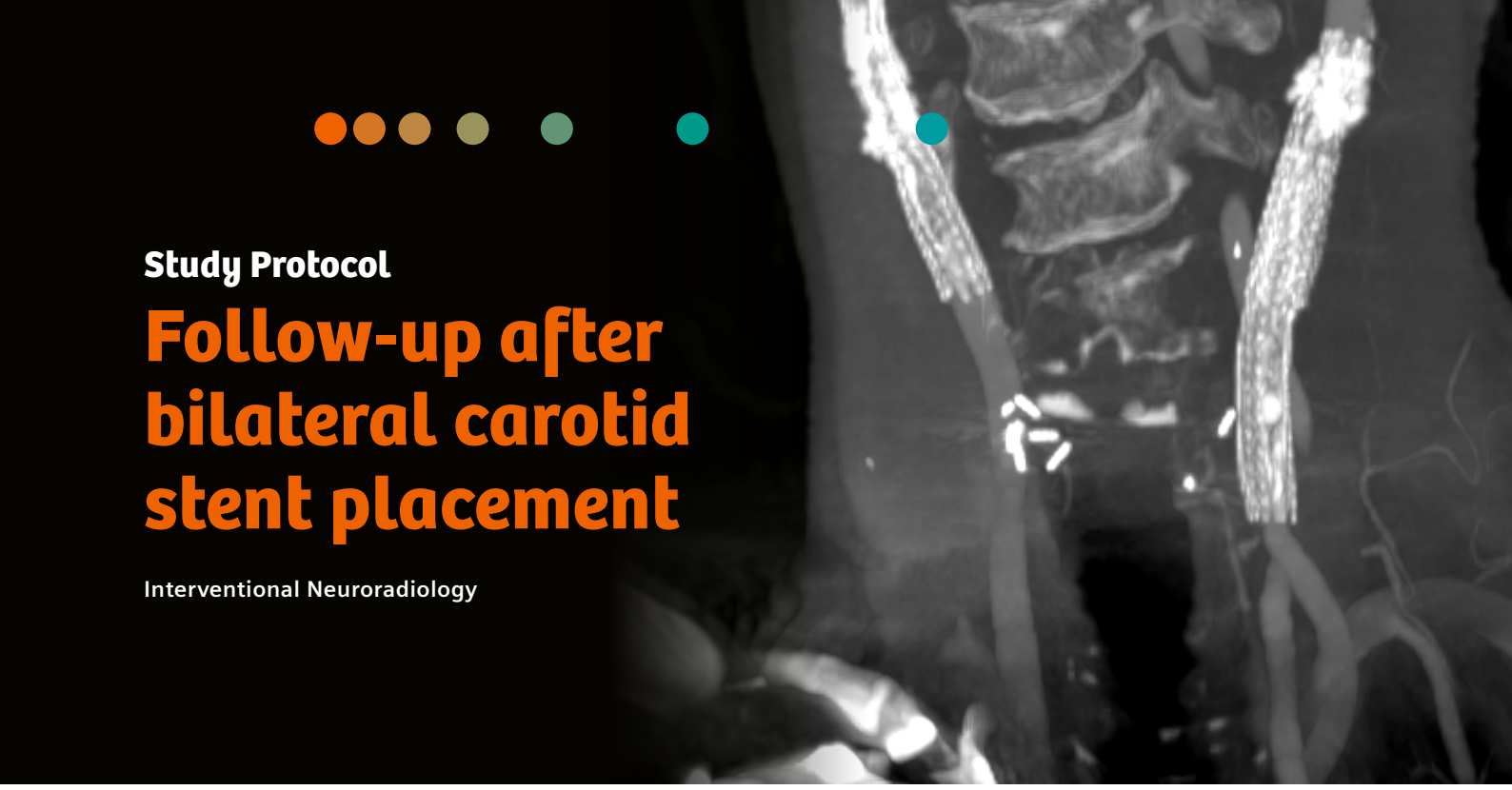

Study Protocol

Follow-up after bilateral carotid stent placement

Interventional Neuroradiology

syngo DynaCT with IV injection of contrast medium is used for concerns around stent patency, in-stent stenosis, residual filling of aneurysms s/p clipping and/or coiling, and vasospasm.

Courtesy of
Kiffon Keigher, APN,
Demetrius K. Lopes, MD,
Rush University Medical Center,
Chicago, USA

Supported by
syngo DynaCT

System & Software
Artis zee biplane VC21
syngo X Workplace VB21

Case Description

Patient history
76-year-old female who developed severe bilateral carotid artery stenosis thought to be primarily related to her history of neck radiation for thyroid disease. Re-stenosis of both carotids seen in CTA. Decision for *syngo* DynaCT with IV injection of contrast medium for improved stenosis evaluation and stent visualization.

Diagnosis
A 20sDR DynaCT of the neck region was performed, with a contrast injection through an 18 G IV access in the right antecubital vein, using an X-ray delay of 14 sec. Images were automatically reconstructed on the *syngo* X Workplace and displayed in *syngo* InSpace 3D.

Treatment
Patient has no new symptoms and no further intervention was recommended with exception of continued dual anticoagulation therapy and stroke risk factor management.

General comments
At our institution we are using *syngo* DynaCT with IV injection routinely for patients with the following concerns: stent patency, in-stent stenosis, residual filling of aneurysms s/p clipping and/or coiling, and vasospasm.

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Follow-up after bilateral carotid stent placement

Acquisition protocol	20sDCT Head 109kV

Injection protocol	
Catheter position	IV injection; right antecubital vein
Contrast medium (CM)	370 mg iodine/mL
Dilution	No
Injection volume	80 mL
Injection rate	4 mL/s
Duration of injection	20 s
X-ray delay	14 s
Power injector used	Yes

Reconstructions	Primary	Secondary
Name	DynaCT Head Nat Fill HU	DynaCT Head Nat Fill HU
VOI size	Full	Small
Slice matrix	512 × 512	512 × 512
Kernel type	HU	HU
Image characteristics	Normal	Normal
Reconstruction mode	Nat fill	Nat fill
Viewing preset	DynaCT Head	DynaCT Head

[1] In order to improve the visualization of the stent, a 2nd reconstruction with a small size VOI was performed, using the same parameter as for the initial reconstruction.

Clinical Images

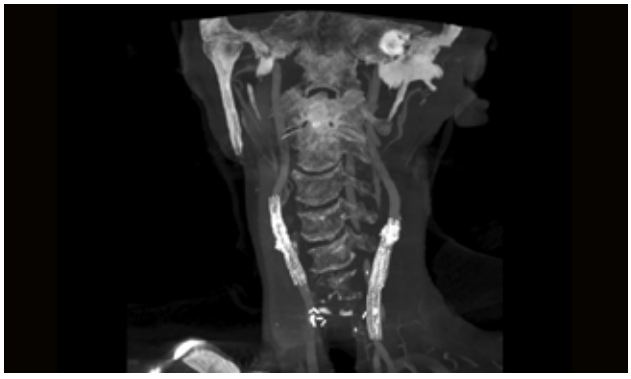

Figure 1: Coronal MIP showing bilateral stent placement

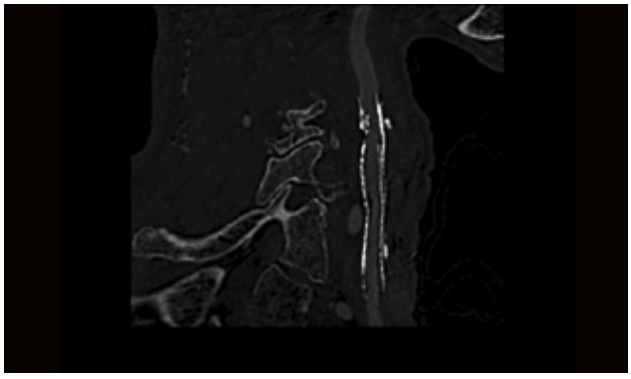

Figure 2: Sagittal MPR demonstrating partial in-stent stenosis (with secondary reconstruction)

Clinical Images

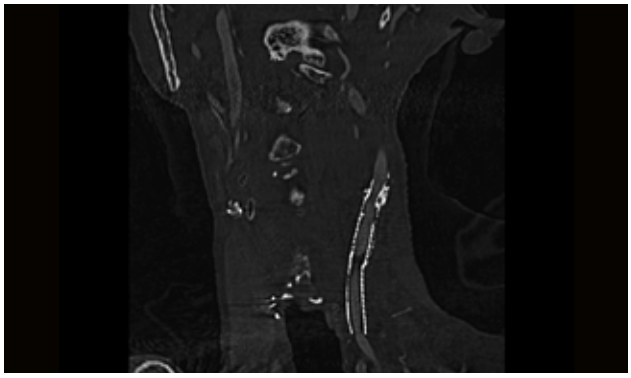

Figure 3: Curved MPR demonstrating partial in-stent stenosis (with secondary reconstruction)

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