

ENDOVASCULAR MANAGEMENT OF TANDEM CAROTID ATHEROSCLEROTIC LESIONS: AN INTERESTING CASE

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HISTORY AND PHYSICAL:

A 57-year-old male presented to the hospital with complaints of left-sided weakness for 1 month. Neurological examination showed clasp knife spasticity in the left upper and lower limb with Grade III power.

IMAGING:

Magnetic resonance imaging of the brain was done on initial presentation, which showed left middle cerebral artery (MCA) territory infarct.

Magnetic resonance angiography showed left high-grade carotid artery disease at the origin of the internal carotid artery and mild proximal middle cerebral artery stenosis.

Digital subtraction angiography showed high-grade stenosis in the left carotid artery at the origin of the internal carotid artery with tandem lesions in the petrous part of the internal carotid artery (which is high grade and shows focal stenosis). [Figure 1]

INDICATION FOR INTERVENTION:

Symptomatic high-grade left carotid artery disease at the origin of the internal carotid artery with tandem high grade intracranial petrous internal carotid artery stenosis.

INTERVENTION:

Neuron max long sheath was placed in the left common carotid artery subsequently, neurospeed balloon catheter was negotiated over transcend microwire across the stenotic segments in the proximal internal carotid artery and in the petrous internal carotid artery.

Balloon angioplasty was performed for the petrous internal carotid artery lesion using the balloon on the neurospeed catheter. Post-angioplasty acclinoflex (4.5 x 25 mm) stent was deployed across the stenotic segment in the petrous internal carotid artery.

Subsequently, protégé Rx (8 x 6 x 40 mm) stent was deployed across the proximal internal carotid artery stenosis. Final left common carotid artery angiogram shows good caliber of the stented segment of proximal internal carotid artery as well as petrous internal carotid artery with improved intracranial circulation. [Figure 2]

LEARNING POINTS OF THE PROCEDURE:

Adequate vascular imaging is mandatory.

In the case of tandem lesions (Extracranial and Intracranial carotid artery disease), diagnostic cerebral angiography should be performed as a gold standard test to plan appropriate endovascular treatment.

Endovascular therapy involves treatment of distal stenosis followed by proximal stenosis in the presence of tandem lesions.

Newer devices— Self-expanding stents (like Acclinoflex), deployed through neurospeed balloon catheter can simplify treatment of intracranial atherosclerotic disease as it avoids multiple crossings of the tandem lesions.

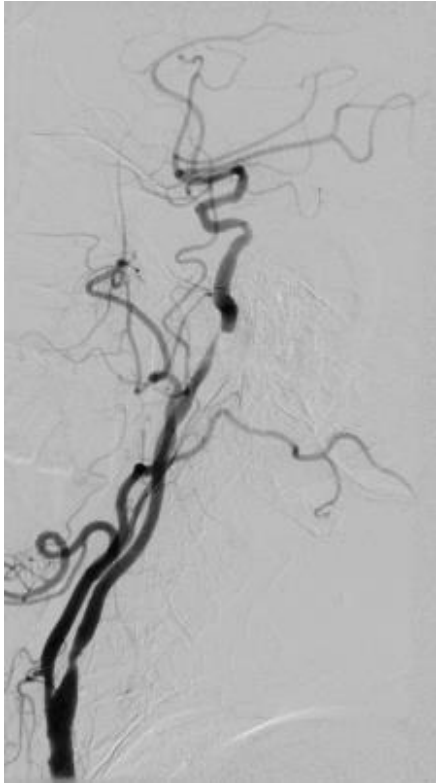


Figure 2



Figure 1

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