

## TREATMENT OF PATIENT WITH HIGH-RISK CONCOMITANT CAROTID AND CORONARY ARTERY DISEASE.

Firdavs Shukurov,<sup>1</sup>, Boris Rudenko,<sup>1</sup>, Artem Shanoyan,<sup>1</sup>

<sup>1</sup> Russian National Research Center for Preventive Medicine; Interventional Cardiology; Interventional Cardiologist

### HISTORY AND PHYSICAL

A 63 years old male chronic smoker, hypertension III, dyslipidemia, body weight index – 26. Stable angina III-IV on chronic nitroglycerin use. Systolic murmur on both carotid artery. No previous stroke or transient ischemic attack. Ultrasound: right internal carotid artery 80% stenosis, left internal carotid – 90% stenosis. Echocardiography: ejection fraction – 50%, hypokinesis of inferior, lateral wall. Ascending aorta diameter – 53mm. Creatinine clearance - 65 ml/min.

### IMAGING

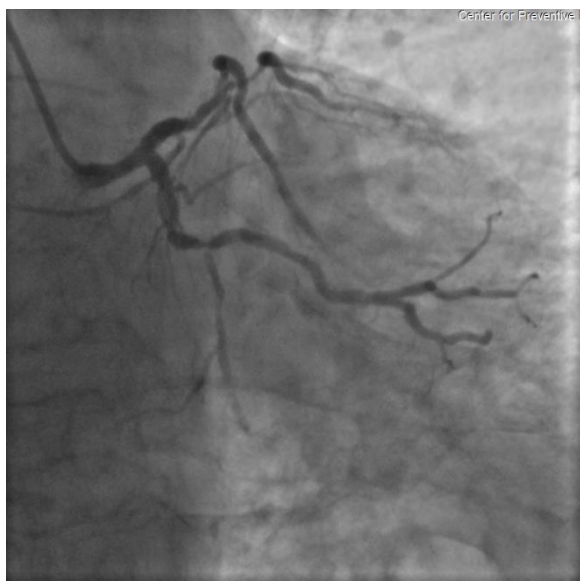
Coronarography: 90% bifurcation stenosis of circumflex artery (1,0,1 Medina), 70% bifurcation stenosis of left anterior descending artery (0,0,1 Medina) and chronic total occlusion of right coronary artery. SyntaxScore = 19. Carotid angiography: 90% stenosis of right and 99% stenosis of left internal carotid artery. Euroscore = 14,69%.

### INDICATION FOR INTERVENTION

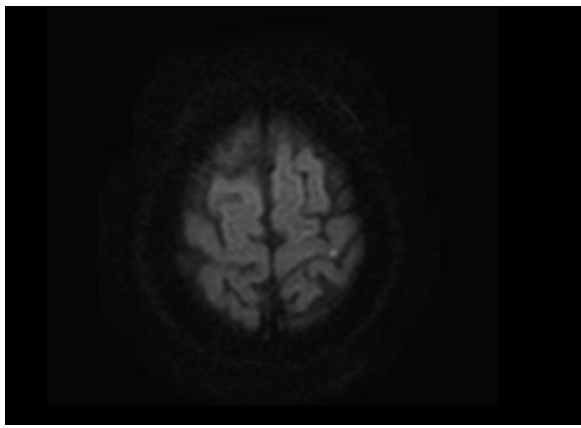
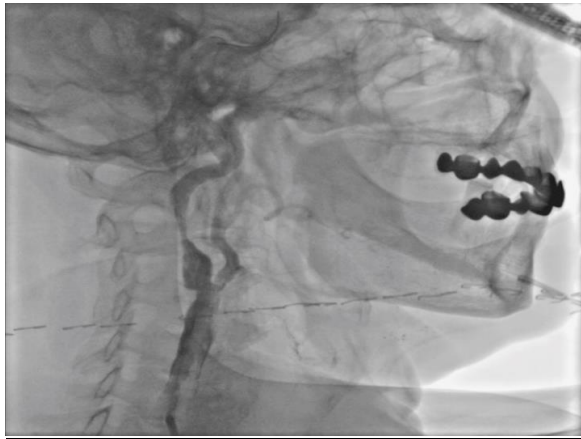
Concomitant symptomatic coronary and asymptomatic carotid artery disease. What strategy to prefer? Surgery: CABG + carotid endarterectomy OR Endovascular: PCI + carotid stenting OR Hybrid: PCI + carotid endarterectomy (CABG + carotid stenting). Topic for discussion.

### INTERVENTION

Our strategy: 1 step – PCI of circumflex artery, 2 step – right carotid artery stenting using distal cerebral protection device, 3 step – left carotid artery stenting using proximal cerebral protection device, 4 step – pci of left anterior descending artery + diagonal branch.

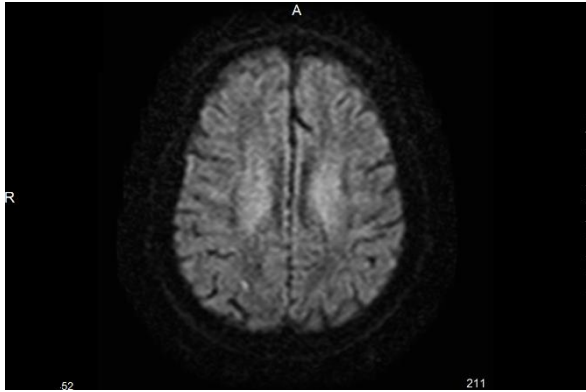


90% bifurcation stenosis of circumflex artery was treated using 3,0 x 20mm. everolimus-eluting stent. Symptoms of angina revealed to stable angina I-II.



2 days later right carotid artery stenting performed. Closed-cell carotid stent 8-6x40mm implanted and 6x20mm postdilatation performed. On DWI-MRI the day after procedure: foci of increased MR signal in left parietal lobe (2mm).





10 days later left carotid artery stenting performed. Closed-cell carotid stent 8-6x40mm implanted after 3,5x20mm predilatation and 6x20mm postdilatation performed. On DWI-MRI the day after procedure: foci of increased MR signal in right occipital lobe (3mm).



70% bifurcation stenosis of left anterior descending artery was treated using 2,5 x 20mm everolimus-eluting stent. Symptoms of angina totally revealed.

#### **LEARNING POINTS OF THE PROCEDURE**

Surgical and endovascular treatment of patients with concomitant coronary and carotid lesions show the same immediate and long-term clinical results. The choice of revascularization strategy should be multi-disciplinary. It is important to consider the clinical and anatomical characteristics and risk assessment in each individual case.