

Stenting of single vertebral artery- the only one supplying the brain

City Clinic Sofia, Bulgaria

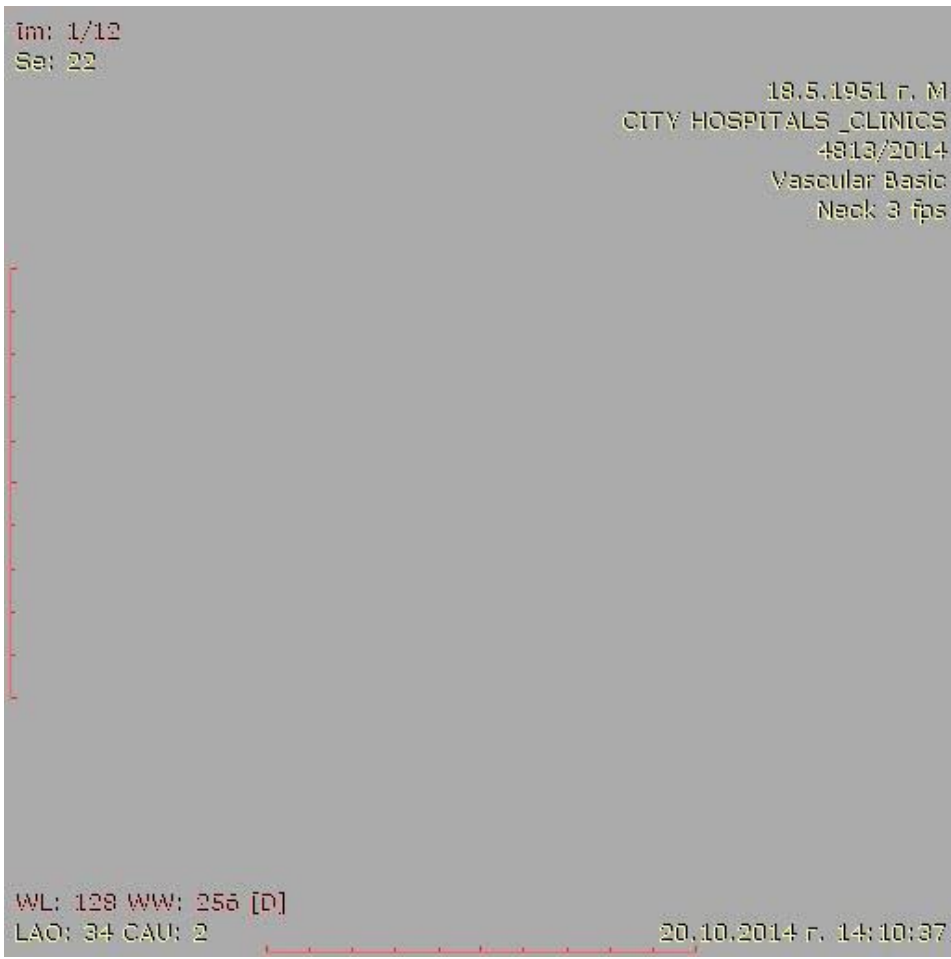
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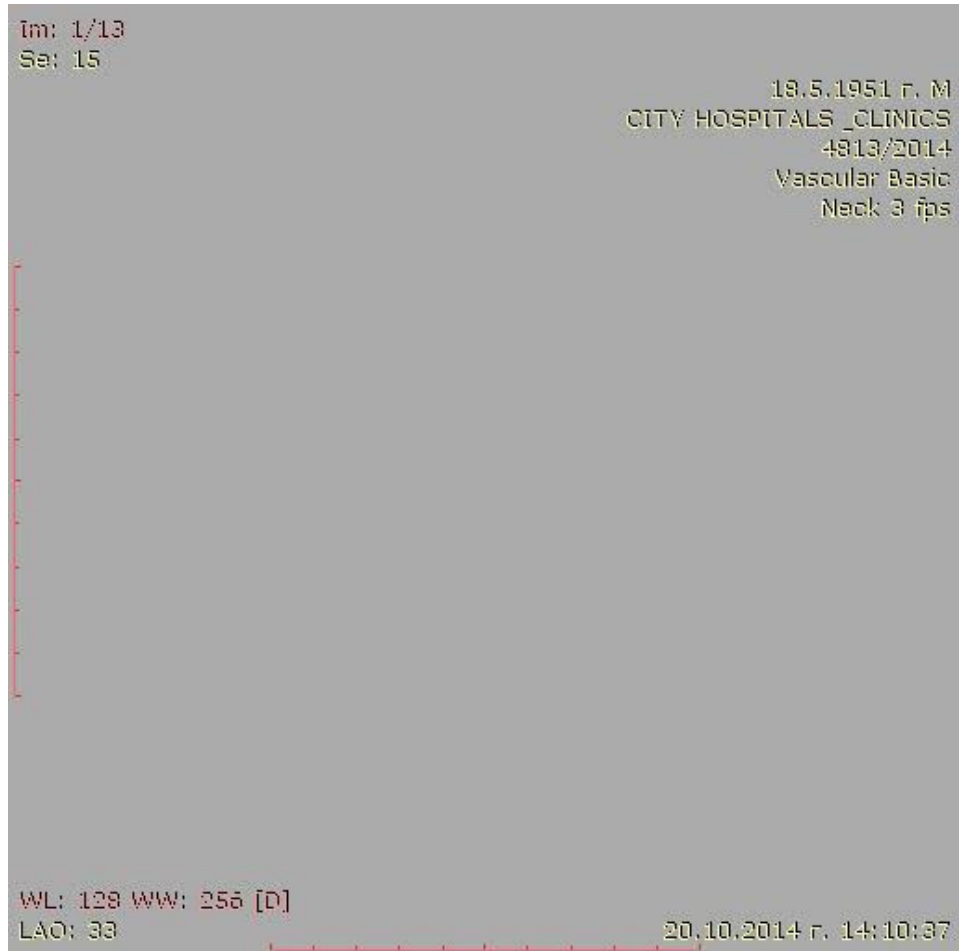
- A 63 year-old man was admitted to our hospital because of left side hemiparesis
- He has history of 4 ischemic strokes
- CAD - two vessel disease, status post stenting of LAD and RCA.
- 2009- status post Ao-bifemoral bypass
- Risk factors: arterial hypertension, smoker

- Duplex sonography showed: LCCA- ostial occlusion, RICA- occlusion; Left subclavian artery- ostial occlusion, right vertebral artery – 90% ostial stenosis
- Carotidography revealed occlusion of RICA, LCCA, left subclavian artery; RECA- patent, giving collaterals toward LECA; right vertebral artery with severe stenosis.

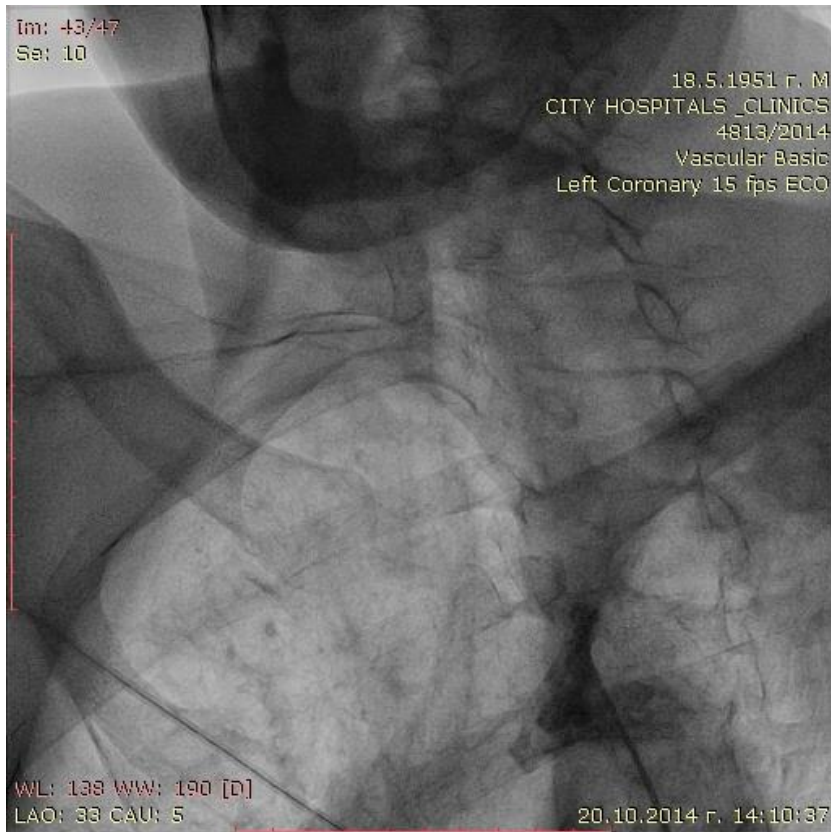
a. Vertebralis dex.



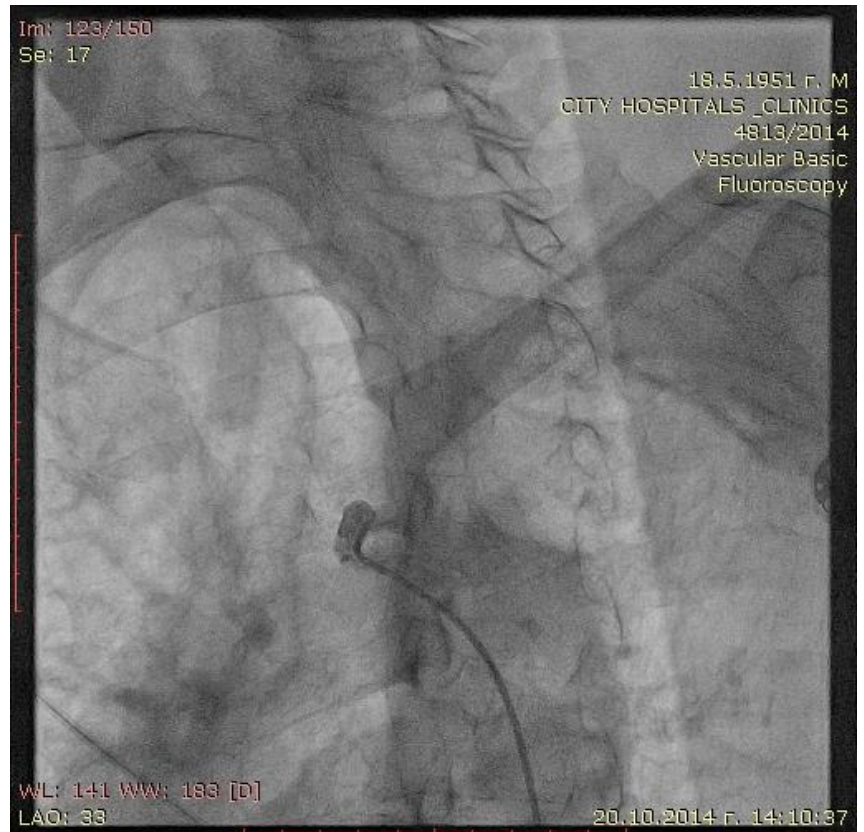
RICA occlusion



a. Subclavia sin. occlusion



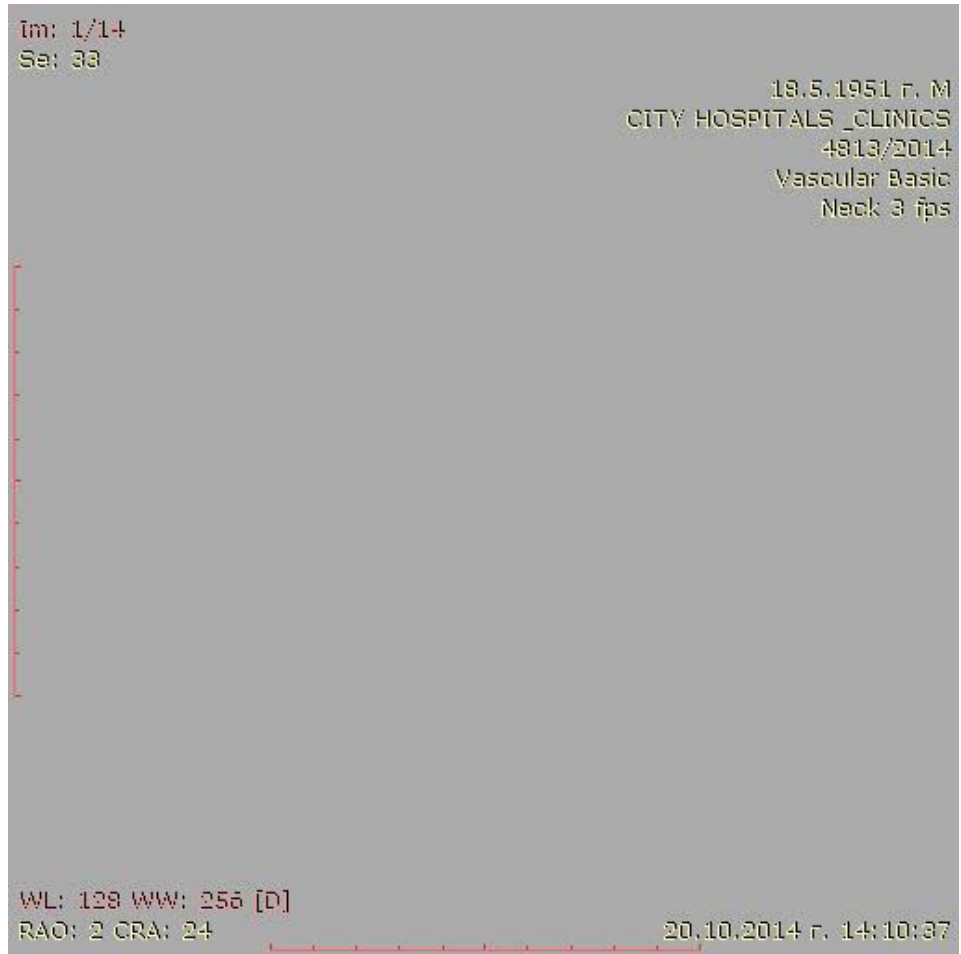
LCCA occlusion



After stenting of right vertebral artery



Final intracranial angio



- A high risk procedure was undertaken to improve antegrade filling of the whole circulation.
- Right vertebral artery was engaged with 5F JR catheter (Medtronic).
- The lesion was intentionally predilated with 2,0x15mm coronary PTCA balloon (Sprinter, Medtronic).
- A drug –eluting coronary stent 4/15mm was implanted. Postdilated with 5,0x15mm balloon.
- The final result showed no residual stenosis of the right vertebral artery with good antegrade filling of postero-basilar, left intracranial circulation and retrograde filling of left vertebral artery.

- Extracranial vertebral artery stenosis is common among patients with total carotid occlusions and they can develop ischemic stroke as a result to hemodynamic impairment. Flow augmentation can be provided through a variety of surgical and endovascular techniques. We describe a patient treated with vertebral artery stent placement to improve indirect flow to the territory of an occluded carotid arteries and contralateral left vertebral artery. In this case we used a coronary DES which has lower rates of restenosis and recurrence of symptoms compare to bare metal stents.
- The patient has uneventful follow-up.