

## P10

### **Internal carotid artery pseudoaneurysm following carotid endarterectomy.**

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Case report describing endovascular treatment and the follow-up examinations by carotid duplex and transcranial doppler.

**Background:** Carotid pseudoaneurysms following endarterectomy are relatively uncommon, however, they carry high risk of stroke. Treatment options can vary from interventional procedures to medical treatment. Transcranial Doppler plays a crucial role in the follow-up of the affected cerebral circulation.

**Case presentation:** We report a case of a 75-year-old patient, who was admitted to OSH with a left hemispheric stroke. Stroke work-up showed a 70-99% stenosis of the left internal carotid artery (ICA) and a carotid endarterectomy was performed. After a week, he consulted in our hospital with a 1-day history of right side weakness. MRA, CTA and conventional angiography revealed a 10x4mm pseudoaneurysm of the mid ICA. A Pipeline™ stent was placed into the ICA lumen to exclude the pseudoaneurysm. Follow-up transcranial doppler (TCD) showed abnormal vertebral flow. As mapping the intracranial collaterals, we experienced an important accidental finding, right fetal PCA. A new conventional angiography showed 80% stenosis of the common carotid artery proximal to the endarterectomy site. A new stent was placed to treat this lesion.

**Conclusion:** The appropriate treatment is necessary to prevent embolic strokes. The treatment options for carotid disease (including pseudoaneurysm) are open surgical repair, endovascular treatment and non-surgical treatment. Endovascular treatment is the preferred approach in distal ICA pseudoaneurysm or high bifurcation cases. Close, post-procedure follow up with non-invasive ultrasound techniques are important to identified complications and prevent new strokes.