Endovascular Therapy of Intracerebral Posterior Circulation: Early Results and Mid Term Follow Up

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Background: Symptomatic vertebrobasilar ischemia despite antiplatelet or anticoagulation therapy deserved endovascular therapeutic approach.

Aim: To report our initial experience of intracranial vertebral and basilar endovascular therapy by invasive cardiology team.

Methods: During last 6 month 7 pts (4M, 3F, mean age 67±9 years) underwent therapeutic endovascular intervention secondary to atherosclerotic intracerebral posterior circulation (PC) disease. All pts had 3-4 major atherosclerotic risk factors. Four had concomitant coronary and peripheral vascular diseases. Main symptoms were recurrent syncope or dizziness and 2 reported on TIA related to PC. All were symptomatic under antiplatlet, lipid lowering and antihypertensive agents. All underwent either CTA or MRA before intervention. All procedures were undertaken under awake status; 5/7 via the femoral approach, and 2/7 via the ipsilateral radial approach. All procedures performed using regular coronary interventioal equipment. Results: One mid basilar (90%), and 6 V4 vertebral narrowing (70-80%) were treated. One pts had left sided tandem lesion in V2 and V4 segment and other had bilateral V4 significant lesions. 5/7 intracranial vertebral narrowing were treated by DES, whereas basilar lesion and type C V4 lesion were treated initially by balloon only, adopting the submaximal angioplasty approach. All procedures were technically successful. Post dilatation residual narrowing was 10% for stenting and 30-50% for balloon angioplasty. Dual antiplatelet was recommended for 1 year. During mean follow up of 4 moths no symptoms reoccur. CTA during follow up didn't show restenosis in the treated segments.

Conclusions: Safe and beneficial endovascular therapy in symptomatic pts with intra cranial PC narrowing's can be handled by experience interventional cardiologists.