

## CT PERFUSION IMAGING WITH ACETAZOLAMIDE CHALLENGE: LEADING THE WAY TO INTERVENTION

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Perfusion computed tomography with acetazolamide challenge is one of the new promising methods for assessment of cerebrovascular reserve capacity in patients with extra- and intracranial arterial stenoses. We report our experience in the use of this method in patients with asymptomatic middle cerebral artery stenosis to determine patients at high risk for cerebral ischemia, suitable for reconstructive interventions. The results are compared with the corresponding transcranial Doppler findings. Depending on the resulting cerebral blood flow maps on perfusion CT at rest and after acetazolamide challenge the decision regarding reconstructive vascular interventions is made. It has to be further evaluated if the patient qualified for either extracranial/intracranial bypass surgery or for neuroradiological intervention. We discuss the advantages and problems of the use of the method in daily clinical decisions on so far 3 patients with middle cerebral artery stenosis. CT perfusion imaging is likely to become more widely available as an easy-to-perform technique for assessing cerebral perfusion in patients with intracranial arterial disease.

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