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Titel des Beitrags:
Improvement of carotid blood flow after carotid endarterectomy--evaluation using intraoperative ultrasound flow measurement.

Abstract:
OBJECTIVES: to examine the relationship between the degree of extracranial internal carotid artery (ICA) stenosis and changes in the ipsilateral ICA blood flow after carotid endarterectomy (CEA). MATERIALS AND METHODS: in a prospective study we studied 51 patients with unilateral 60-99% ICA stenosis (median degree 84%, asymptomatic stenosis n = 13, symptomatic stenosis n = 38). The degree of ICA diameter stenosis was determined by ex-vivo plastination of the surgically removed atherosclerotic specimen and video-assessed planimetry. Intraoperative transit time ultrasound flow measurements of the carotid arteries were performed before and after CEA. Blood flow changes were assessed by mathematical approximations. Statistics were done by use of the Wilcoxon signed Rank test. RESULTS: common carotid artery (CCA) and ICA median blood flow increased after CEA from 370 and 130 ml/min to 450 and 282 ml/min, respectively (p or =82.3%. CONCLUSIONS: in the absence of severe contralateral ICA occlusive disease a significant increase of ipsilateral ICA blood flow by CEA can be expected in patients with an ICA stenosis of> or =82.3% (linear degree of stenosis, ECST criteria).

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