

### **(P8) Morphological characterization of symptomatic and asymptomatic MCA stenosis by ultrasound with TCCS and UCA administration**

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Intracranial stenosis are an increasingly recognized cause of stroke not only in asiatic population but also in white patients. In the neurological literature there are several reports on this occlusive pattern and it is substantially considered that the prognosis of symptomatic and asymptomatic stenosis is very different. Also the cause of an intracranial stenosis can be very different, ranging from incomplete or partial reperfusion of a previous acute occlusion to an atherosclerotic origin and inflammatory or immune-mediated disease. The available diagnostic tools are neurosonological and neuroradiological techniques and it is a frequent finding the contemporary presence of several arterial segments affected.

The morphology of MCA stenosis is a less studied item and might be relevant for defining the etiology and the risk of recurrence. In the routine clinical practice of our stroke unit TCCS provide the first line vascular examination. Therefore all patients underwent to TCCS both basal and contrast enhanced with second harmonic and AngioPower, and also to almost one neuroradiological technique examination between CTA, MRA and DSA. Three morphological subtypes of MCA stenosis were identified: monofocal (with and without post-stenotic dilatation), plurifocal (or multiple) and tubular stenosis.

The most frequent site of intracranial stenosis in our series was ICA at the terminal siphon and MCA, followed by PCA and vertebral artery. In patients symptomatic ICA-MCA stenosis we found almost another artery affected in 50% and neuroradiological methods confirmed these results in all but one patients.

TCCS is a useful tool to investigate the morphology of MCA stenosis.

### **(P9) TCD Detection and follow up of Reversible Cerebral Vasoconstriction Syndrome. Report of 7 cases**

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The term «Reversible cerebral vasoconstriction syndrome» (RCVS) has been recently applied to a group of disorders, characterized by reversible segmental and multifocal vasoconstriction of cerebral arteries and severe headaches with or without additional neurological symptoms. RVCS is a rare and still poorly understood syndrome. The aim of the presented work was to revise cases of RVCS, observed by TCD examination, for defining better diagnostic approaches.

For the period from 1998 to 2008 we have observed 7 cases (6 female and 1 adolescent male) that met the criteria for the diagnosis of RCVS. 5 female patients were defined as postpartum angiopathy, one female and the male patient underwent pituitary surgery. Bromocriptine as precipitating factor was present in 2 cases. Imaging techniques included CT, MRI and cerebral angiography.

TCD signs of arterial narrowing in the anterior and posterior circulation were observed in 6 cases, with signs of bilateral MCA narrowing in one case of postpartum angiopathy. Most patients had favorable outcome with resolution of vasoconstriction within 2 weeks – 3 months. One patient with severe postpartum vasoconstriction died and the male adolescent patient remained with persistent neurological deficit.

RCVS is a rare but challenging disorder that may be underestimated in clinical practice. We find routine TCD examination an efficient modality for diagnostic and follow up of patients with this syndrome.

### **(P10) Carotid and vertebral dissections. Specificity of continuous Doppler in emergency**

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**Background:** The underlying cause of carotid or vertebral dissection is not well known. Echographic tests are feasible and reproducible, with a high sensitivity but a variable specificity for vascular dissection..

**Methods:** We reviewed retrospectively our database of 2256 patients who suffered from ischemic stroke between 1998 and 2007. We compared the distribution of vascular risk factors and the most likely etiology in spontaneous carotid and vertebral dissections by multivariate regression