

Results: Left VA was dominant in 65% of patients. RI values increased and flow decreased with age. Blood flow velocity and volume were higher, and RI was lower in the left than in the right VA. In VBI patients peak systolic velocity and RI were significant higher in V1 segment, and lower in the V2 and V3 segment: VpsV1=62,7±16,4cm/s; VpsV2=46,5±15,1cm/s; VpsV3=45,6±17,7cm/s; RIV1=72,2±10,1; RIV2=68,7±12,9; RIV3=64,6±14,4.

Conclusion: The doppler sonographic assessment of extra cranial VA may be useful for the study of hemodynamic changes in patients with vertebrobasilar insufficiency.

28

The Contralateral Carotid Disease In Patients with Internal Carotid Artery Occlusion

Lovrencic-Huzjan A., Vukovic V., Strineka M., Azman D., Bene R., Demarin V.

Department of Neurology, University Hospital «Sestre milosrdnice», Reference Center for Neurovascular Disorders of Republic of Croatia, Zagreb, Croatia

Aim of the study was to investigate management and natural history of the contralateral internal carotid artery disease in patients with internal carotid artery occlusion (ICAO).

Patients and methods: During one year 296 patients with ICAO were investigated. Retrospective analysis of follow-up examinations was performed, and patients were divided into groups according to contralateral carotid disease. Data are presented as numbers and percentages.

Results: Out of 296 patients, in 90 patients with carotid occlusion only one investigation was performed. Thirty three patients were followed up due to postoperative ICAO. In 14 patients ICAO developed during ultrasonographic follow-up. Contralaterally in this group of patients, 9 had unchanged findings, while in 5 (35,7%) disease progression was observed: in 2 patients from mild stenosis to occlusion, in 1 from mild to subtotal stenosis, in 1 from moderate stenosis to occlusion and in 1 from subtotal stenosis to occlusion. Out of 44 patients with ICAO and contralateral subtotal stenosis at initial investigation, 42 underwent carotid surgery. Postoperatively 32 had normal finding, 6 developed mild carotid stenosis, 2 moderate, and 2 had postoperative carotid occlusion. Two patients were followed up without intervention. Nine patients with bilateral ICAO were followed up during years. Hundred and six patients with ICAO and contralateral mild to moderate changes, were followed-up. The finding was unchanged in 68 patients. In 21 (30%) patients disease progressed to subtotal stenosis, 18 underwent carotid surgery.

Conclusion: In one third of patients with carotid occlusion contralateral carotid disease progression was observed. Further investigations should be conducted.

29

Galen Vein Involvement in a Case of Transient Global Amnesia

Malferrari G.¹, Zedde M.¹, Sanguigni S.², Marcello N.¹

¹ *Neurology Department, Stroke Unit, Arcispedale Santa Maria Nuova, Reggio Emilia, Italy*

² *Neurology Department, Stroke Unit, Ospedale Madonna del Soccorso, San Benedetto del Tronto, Italy*

The pathophysiology of Transient Global Amnesia (TGA) has been a matter of discussion since years; an attractive hypothesis postulates a cerebral venous drainage impairment, e.g. by identifying a jugular venous valve incompetence, because of the absence of valvular leaflets in the intracranial vessels. We studied a 68 years old previously health patient who came to our attention for the onset of anterograde amnesia since 4 hours and a spontaneously improving course. The urgent brain CT was normal and the ultrasound examination of epiaortic vessels and TCCS was insignificant on the arterial side, but on the venous side it has been found a left jugular valve incompetence on Valsalva maneuver, a markedly angled course of the proximal segment of the Galen vein and a dynamic stenosis of its middle segment during Valsalva maneuver. This finding was highly reproducibile in the follow-up at 7 and 40 days and the patient underwent to a neurosonological examination for a right to left shunt, that was positive for a mild shunt. The subsequent diagnostic workup is made by a CTA examination and a MRI – MRA, both negative but not easily performable and valuable in dynamic conditions (like a Valsalva maneuver). This is the second episode of TGA for our patient, being the first ten years before. An amnesic syndrome was described in the Galen vein thrombosis but this is the first report, at our knowledge, of a vein stenosis as responsible of TGA, and neurosonological techniques was demonstrated useful and reliable in dynamic evaluation.

30

A Case of successful Sonothrombolysis Performed on a Carotid T-Type Occlusion

Malferrari G.¹, Zedde M.¹, Dallari A.¹, Nucera A.¹, Accorsi F.², Marcello N.¹

¹ *Neurology Department, Stroke Unit, Arcispedale Santa Maria Nuova, Reggio Emilia, Italy*

² *Internal Medicine Department, Ospedale Maggiore, Bologna, Italy*

A 66 years woman with a recent diagnosis of idiopathic hypertrophic cardiomyopathy was evaluated because of the onset of a right sided hemiparesis and aphasia since 2 hours (NIHSS 8). The unenhanced brain CT was normal and the neurosonological examination showed indirect signs of left M2