

CORRELATES OF CHANGES BETWEEN CLINICAL NEUROLOGICAL AND NEUROIMAGING PARAMETERS AFTER ENDOVASCULAR THERAPY IN PATIENT WITH MULTIPLE SCLEROSIS (MS)

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Background: MR venography and postmortem studies have demonstrated a topographic correspondence between MS plaques and cerebral venous abnormalities. In several epidemiological observations the prevalence of chronic cerebrospinal venous insufficiency (CCSVI) in MS ranges from 56% to 100%. Chronic cerebrospinal venous insufficiency (CCSVI) is a syndrome characterized by stenosis of the Internal Jugular Vein(s) (IJV) and azigos (AZ) venous system followed by insufficient drainage and an opening of the collaterals. This was proven by an increased average in the transit time through an MRI perfusion study. Additionally, venous flow deviates into the collaterals to bypass an obstacle via the vicarious shunt (an anatomical bypass).

Material and Methods: Under our observation were 29 patient with different forms of MS : Relapsing-Remitting (RR) – 14; Secondary-progressive (SP) – 8; Primary-Progressive (PP) – 5; Progressive-Relapsing (PR) – 2 patient. In all those patients different degrees of stenosis were observed in proximal parts of jugular veins (right or left). We have used transluminal balloon angioplasty (TPA) in all cases and several methods for assessment of patients before TPA and at follow up: Clinico-Neurological assessment (Kurtzke Expanded Disability Status Scale (EDSS) and the Multiple Sclerosis Functional Composite (MSFC) (every 6 month); MRI (every 6 month) and have long-term study.

Results: clinical-neurological and MRI finding had positive dynamic In 7 cases – (4-MS-RR, 3-MS-SP); In 18 cases – stabile dynamic (10 – MS-RR, 4-MS-SP, 4-MS-PP); In 4 cases – unknown dynamic (2-MS-SP, 1-MS-PP, 1-MS-PR).

Conclusion: There might be some kind of correlates between correlates of changes between clinical neurological and neuroimaging Parameters. CCSVI can play a certain role in the development of MS. It is recommended to perform selective venous angiography for patients with MS to diagnose CCSVI. In case of venous insufficiency TPA may appear an effective treatment strategy for the patients with various forms of MS. Future randomized studies are warranted to establish the efficacy of this new treatment for MS.