

Chronic cerebrospinal venous insufficiency and multiple sclerosis

Insuficiência venosa cérebro-espinhal crônica e esclerose múltipla

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In a previous issue of **Radiologia Brasileira**, Radu & Gonçalves⁽¹⁾ published an editorial discussing the relation between chronic cerebrospinal insufficiency and multiple sclerosis, on the basis of articles published by Zamboni et al.^(2,3). Such question has recently emerged and has been fervorously discussed in the scientific community, but definite conclusions are still to be drawn. Thus, as members of the editorial board of this journal, we are concerned about the conclusion of the mentioned article that says: “*angioplasty seems a promising avenue mainly for the relapsing remitting multiple sclerosis course, offering significant improvement in long-term neurological outcome with no relapses in patients with stable venous patency*”⁽¹⁾. So, we would like to bring forward more information on this subject to the readers of **RB**, particularly with the objective of emphasizing that, in the literature, there is not any reliable, proved and validated evidence that angioplasty presents any benefit for patients with multiple sclerosis.

It should be emphasized that, according to a recent article published in the journal *Nature*⁽⁴⁾, the initial study developed by Dr. Zamboni was a non-randomized, non-blinded trial based on a small series including only 65 patients. Thus, in spite of the findings of such study deserving attention and further investigation, nobody in the clinical community involved in treatment of multiple sclerosis has accepted venoplasty

as a therapeutic option for such patients. Additionally, several studies have unsuccessfully attempted to reproduce Dr. Zamboni's findings⁽⁵⁻⁷⁾. Other neuroimaging findings do not support such a theory⁽⁵⁾. Studies with magnetic resonance imaging venography, evaluating flow direction, velocity measurements and intra- and extracranial blood volume, have not confirmed Dr. Zamboni's theory.

Such arguments, besides several other arguments detailed in editorials published in the *Annals of Neurology*⁽⁸⁾ and in the *American Journal of Neuroradiology*⁽⁹⁾ by the most world-renowned authorities in multiple sclerosis, question Dr. Zamboni's theory validity, defining the necessity of a serious scientific debate based on methodologically unquestionable publications. Additionally, there is still the hypothesis that venous abnormalities observed in those patients may be related to the disease consequences, and not to its cause. Anyway, it is extremely important that the physical integrity of multiple sclerosis patients is preserved during the development of studies for such hypothesis testing. Some isolate reports clearly inform that stenting was performed as a clinical treatment of patients with multiple sclerosis, and that in some cases there were serious complications. Although fatal, stents migration into the heart and ascending aorta perforation are uncommon complications of this procedure^(10,11). Any procedure related to angioplasty and venous stents placement must be contraindicated until some conclusive evidence justifying such an indication in multiple sclerosis patients is obtained.

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