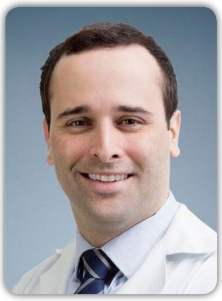

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A new index for the assessment of Transverse Sinus Stenosis for the diagnosis of Idiopathic Intracranial Hypertension

Background and Purpose: To assess the role of magnetic resonance venography (MRV) for detecting transverse sinus stenosis and the importance of this finding in idiopathic intracranial hypertension (IIH), and to propose an index that contributes to this diagnosis.

Materials and Methods: We retrospectively assessed consecutive intracranial MRV of patients aged >18 years diagnosed with IIH according to the diagnostic criteria, between January 2010 and July 2012. The assessments were randomly analyzed by 3 radiologists. Stenosis in the right and left transverse sinuses were independently classified according to the following scale: 0, normal; 1, stenosis <33%; 2, stenosis 33–66%; 3, stenosis >66%; and 4, hypoplasia or agenesis. We established an index based on multiplication of the stenosis scale values for each transverse sinus. A point and range estimate of sensitivity, specificity, and the area under the receiver operating characteristic curve was performed to obtain cut-off points to differentiate the controls and patients.

Results: Sixty-three individuals were included in this study: 32 (50.8%; 31 [96.9%] women and 1 [3.1%] man) diagnosed with IIH and 31 (49.2%) controls. For all examiners, the IIH group showed a higher degree of stenosis than the control group. Index values ≥4 for IIH diagnosis had a sensitivity and specificity of 94.7% and 93.5%, respectively.

Conclusion: MRV should be used to assess patients with suspected IIH, and bilateral transverse sinus stenosis should be considered for the diagnosis. The stenosis-classifying index proposed in this study is a fast and accessible method for diagnosing IIH.

Speaker Biography

Gustavo Balthazar Da Silveira Carvalho is a radiologist specialized in neuroradiology and has completed his PhD at the age of 37 years from Federal University of Sao Paulo, Brazil. He is the medical director of RBD Imagem, a private public partnership with the State Government of Bahia (Brazil) to provide high quality diagnostic imaging service in 11 public hospitals, including a residency program in diagnostic imaging.

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