

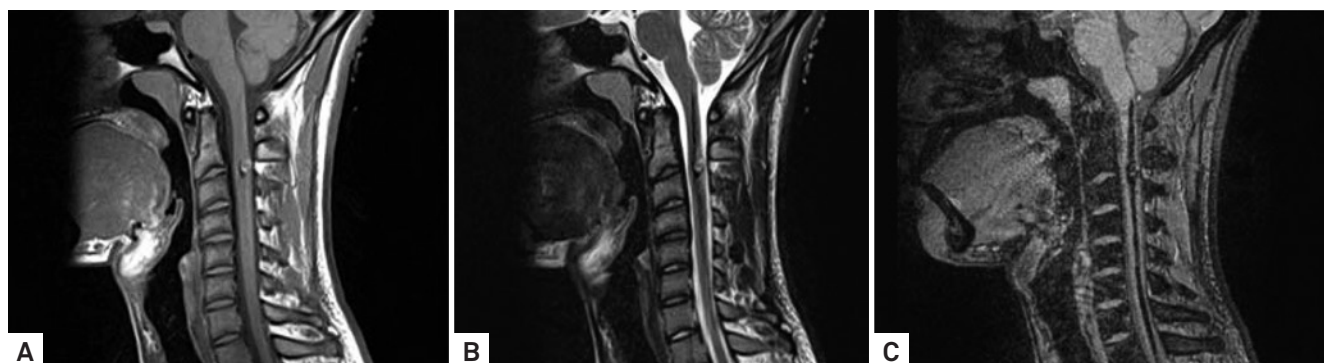
# Spinal cavernous angioma complicated by hemorrhage: susceptibility-weighted imaging findings

Angioma cavernoso medular complicado por hemorragia: achados na RM ponderada em susceptibilidade magnética

Diogo Goulart Corrêa<sup>1</sup>, Emerson Leandro Gasparetto<sup>2</sup>

A 16-year-old boy presented with posterior cervical pain radiating to the right upper limb. Cervical magnetic resonance imaging (MRI) revealed an intramedullary cavernous angioma (CA) in the level of C2. Susceptibility-weighted imaging (SWI) showed longitudinal hypointensity from the bulb to the level of T1, which was suggestive of a longitudinal fiber-dissecting hemorrhage (Figure).

Intramedullary CAs are associated with an increased risk of hemorrhage. SWI is optimized for detection of magnetic susceptibility effects of blood products<sup>1</sup>. SWI is more sensitive for detection of CAs in the brain<sup>2</sup>, but the usefulness of SWI in cases of spinal CAs is not known.



**Figure.** T1- (A) and T2-weighted (B) images show a nodular lesion, with a hyperintense central focus in both images and a peripheral halo of hypointensity in the T2-weighted image, suggestive of a CA. (C) SWI showing a longitudinal hypointensity in the posterior portion of the medulla, which extends from the medulla oblongata to the level of T1. The T1- and T2-weighted images do not obviously show the hemorrhage or its extension. In the T2-weighted image, the perilesional hemorrhage is characterized by a discrete longitudinal image, but SWI shows its extension more conspicuously.

## References

- Mittal S, Wu Z, Neelavalli J, Haacke EM. Susceptibility-weighted imaging: technical aspects and clinical applications, part 2. *AJNR Am J Neuroradiol* 2009;30:232-252.
- de Souza JM, Domingues RC, Cruz LC Jr, Domingues FS, lasbeck T, Gasparetto EL. Susceptibility-weighted imaging for the evaluation of patients with familial cerebral cavernous malformations: a comparison with T2-weighted fast spin-echo and gradient-echo sequences. *AJNR Am J Neuroradiol* 2008;29:154-158.

<sup>1</sup>MD, Department of Radiology, Federal University of Rio de Janeiro, Rio de Janeiro RJ, Brazil;

<sup>2</sup>MD, Ph.D, Department of Radiology, Federal University of Rio de Janeiro, Rio de Janeiro RJ, Brazil.

**Correspondence:** Diogo Goulart Corrêa; Rua Rodolpho Paulo Rocco 255 / Cidade Universitária / Ilha do Fundão; 21941-913 Rio de Janeiro RJ - Brasil; E-mail: diogogoulartcorrea@yahoo.com.br

**Conflict of interest:** There is no conflict of interest to declare.

Received 27 March 2013; Received in final form 26 April 2013; Accepted 03 May 2013.