

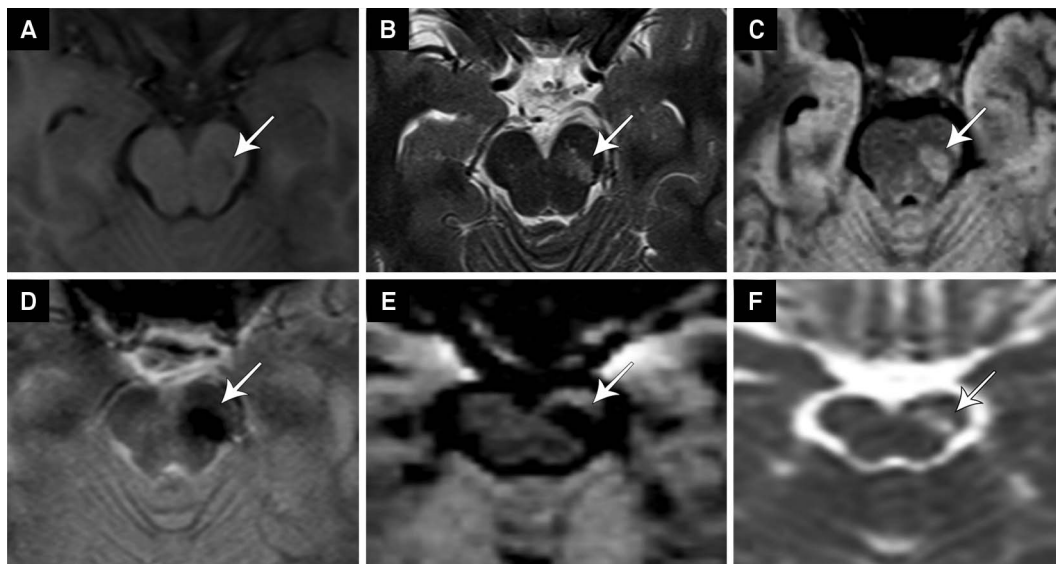
# Giant symptomatic capillary telangiectasia of the brain

## Telangiectasia capilar cerebral gigante sintomática

Celi Santos Andrade<sup>1</sup>, Gabriel Scarabôto Gattás<sup>1</sup>, Ana Luisa Rosas<sup>2</sup>, Claudia da Costa Leite<sup>1,3</sup>

A 30-year-old female reported sporadic paresthesia and tremors in the left hand, hemiface, and hemibody. MRI showed a lesion in the left pontomesencephalic junction (Figure 1), with brushlike enhancement after gadolinium administration, well depicted with maximum intensity projection (MIP) technique (Figure 2).

Despite its unusually large dimensions, the lesion was diagnosed as a capillary telangiectasia based on its characteristic imaging findings. The clinical picture was attributable to the lesion, and biopsy was not pursued. It is important to bear in mind that larger lesions may also occur, and the occurrence of symptoms may be related to the affected sites<sup>1,2,3,4,5</sup>.



**Figure 1.** (A): MRI scan exhibits a focal lesion in the left pontomesencephalic junction, characterized by subtle hypointensity on T1-weighted; (B): Hyperintensity on T2-weighted; (C): FLAIR; (D): Marked low signal intensity on T2\*-GRE images; (E): DWI shows low signal intensity with corresponding high signal intensity on (F): ADC map. All images are in the axial plane and focused in the area of interest. The finding of low signal intensity on T2\*-GRE sequence (or, alternatively, SWI) along with high signal on FLAIR and T2-weighted images derives from the paramagnetic effect of deoxyhemoglobin (resultant from sluggish flow), instead of hemosiderin or calcification. Low signal intensity on DWI is a very characteristic feature and rules out other differential diagnosis, such as acute infarction.

<sup>1</sup>Departamento de Radiologia, Universidade de São Paulo, São Paulo SP, Brazil;

<sup>2</sup>Departamento de Neurologia, Universidade Federal de São Paulo, São Paulo SP, Brazil;

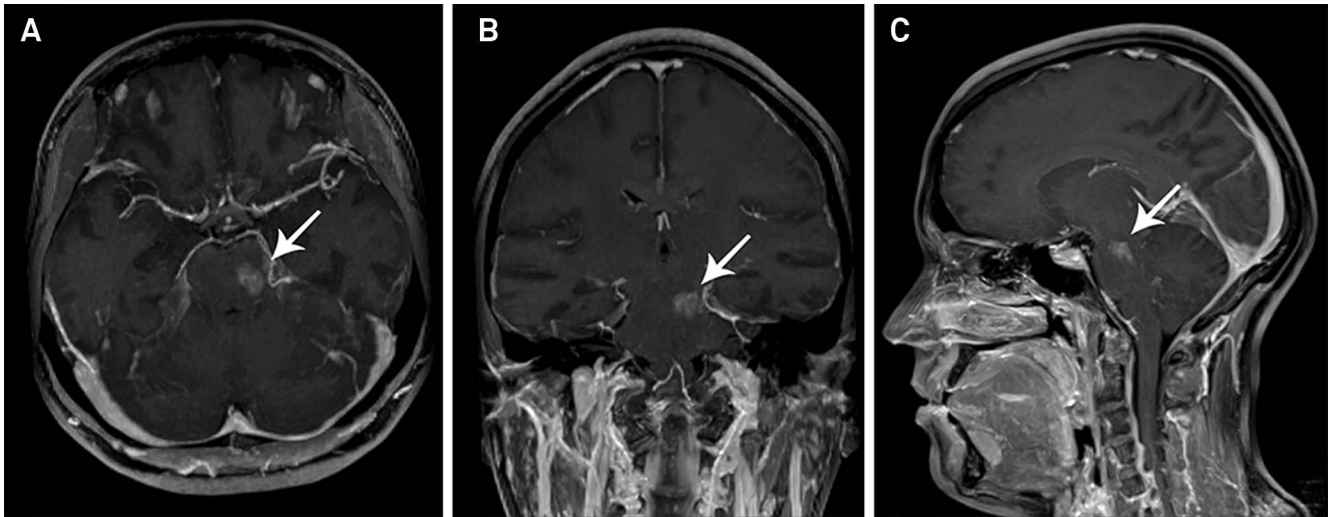
<sup>3</sup>Department of Radiology, University of North Carolina, Chapel Hill, North Carolina, United States.

**Correspondence:** Celi Santos Andrade; Av. Dr. Enéas de Carvalho Aguiar, 255; 05403-900 São Paulo SP, Brasil; E-mail: celi.andrade@usp.br

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

**Support:** Dr. Celi Santos Andrade is a recipient of a post-doctoral grant from FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo, scholarship 2012/00398-1). Dr. Claudia da Costa Leite is supported by CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico, grant 308267/008-7).

Received 28 April 2014; Received in final form 03 September 2014; Accepted 23 September 2014.



**Figure 2.** (A): MRI multiplanar reconstructions with maximum intensity projection (MIP) technique after intravenous gadolinium administration clearly demonstrates a brushlike enhancing lesion with lobulated margins; (B): Maximum lesion size is 1.4 cm, with no relevant mass effect, architectural distortion or edema in adjacent parenchyma; and (C): The occurrence of symptoms may be related to the topography and size of the lesion (dubbed as giant if larger than 1 cm in any dimension).

## References

1. Gross BA, Puri AS, Popp AJ, Du R. Cerebral capillary telangiectasias: a meta-analysis and review of the literature. *Neurosurg Rev.* 2013;36:187-93.
2. Finkenzeller T, Fellner FA, Trenkler J, Schreyer A, Fellner C. Capillary telangiectasias of the pons. Does diffusion-weighted MR increase diagnostic accuracy? *Eur J Radiol.* 2010;74:113-7.
3. Castillo M, Morrison T, Shaw JA, Bouldin TW. MR imaging and histologic features of capillary telangiectasia of the basal ganglia. *AJNR Am J Neuroradiol.* 2001;22:1553-5.
4. Sayama CM, Osborn AG, Chin SS, Couldwell WT. Capillary telangiectasias: clinical, radiographic, and histopathological features. *J Neurosurg.* 2010;113:709-14.
5. Ozcan HN, Avcu S, De Bleecker J, Lemmerling M. MRI findings in giant pontine capillary telangiectasis associated with a developmental venous anomaly. *JBR-BTR.* 2011;94:293-4.