



## ORAL PRESENTATION

# Multiple looks of cerebral vasculopathy after brain tumour irradiation: two case reports

Verónica Cabreira<sup>1</sup>, João Pedro Filipe<sup>2</sup>, Ana Monteiro<sup>3</sup>, Luísa Fonseca<sup>4</sup>, António Vilarinho<sup>5</sup>, and Pedro Abreu<sup>1,6</sup>

From the Porto University Center of Medicine Stroke Update Course, Porto, Portugal. 26–27 June 2018.

### Abstract

**Introduction:** Radiation-induced vasculopathy is a potential long-term complication after brain irradiation. The association between radiotherapy and stroke has been well documented, although it is a challenging diagnosis. We report two patients with different vascular events 20 years after radiotherapy.

**Case Reports:** A 43-year-old woman was admitted, in February 2016, due to a cortical infarction in the right middle cerebral artery territory. In November 2017, she seeks medical attention once more for new-onset of left-sided hemiparesis along with tonic-clonic seizures. A new MRI disclosed previous ischaemic lacunar lesions in the right thalamus and corona radiata. The patient had undergone surgery and radiotherapy (46Gy) for an astrocytoma 20 years earlier, raising the hypothesis of radiation-induced vasculopathy.

A 36-year-old woman, with moyamoya syndrome secondary to radiotherapy for a craniopharyngioma more than 20 years ago, presented with wake-up confusion after being seen well the night before. A left “carotid T” occlusion and an area of penumbra in the left middle cerebral artery territory were observed. The patient had an NIHSS of 6 due to dysarthria and right hemiparesis when upright, and mechanical thrombectomy was attempted. On discharge, she was referred to neurosurgery for consideration of surgical revascularization.

**Conclusion:** Head and neck radiotherapy is an underrecognized risk factor for cerebrovascular disease and careful follow up is necessary. Our second case highlights the broad controversy concerning endovascular reperfusion therapy in patients with moyamoya syndrome, since it is typically associated with increased haemorrhagic risk.

<sup>1</sup>Department of Neurology, Centro Hospitalar de São João, Porto, Portugal

<sup>2</sup>Department of Neuroradiology, Centro Hospitalar de São João, Porto, Portugal

<sup>3</sup>Department of Neurology, Unidade Local de Saúde de Matosinhos, Matosinhos, Portugal

<sup>4</sup>Department of Internal Medicine, Centro Hospitalar de São João, Porto, Portugal

<sup>5</sup>Department of Neurosurgery, Centro Hospitalar de São João, Porto, Portugal

<sup>6</sup>Department of Clinical Neurosciences and Mental Health, Faculty of Medicine, University of Porto, Porto, Portugal

Citation: Cabreira et al. Multiple looks of cerebral vasculopathy after brain tumour irradiation: two case reports. *International Journal of Clinical Neurosciences and Mental Health* 2018; 5(Suppl. 2):O32

Published: 26 Jun 2018



Open Access Publication Available at <http://ijcnmh.arc-publishing.org>

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