



ORAL PRESENTATION

The puzzling case of proptosis worsening after a cerebral angiography

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From the Porto University Center of Medicine Stroke Update Course, Porto, Portugal. 20–21 June 2017.

Abstract

Introduction: Although carotid-cavernous fistula (CCF) and cavernous sinus thrombosis may have clinical similarities, their management is totally different.

Case Report: A 66-year-old male was admitted for a control angiography nine months after embolization of a left post-traumatic direct CCF secondary to gun shot, with consequent moderate left proptosis. The angiography showed partial closure of the CCF and patency of the left cavernous sinus. The patient vomited before and after the procedure, without apparent cause. On the following day, the proptosis was much more conspicuous and was accompanied by hyperaemia and raised intraocular pressure (up to 54 mmHg in the 4th day). There was no bruit over the left orbit. Cerebral angiography was repeated and there was evidence of complete left cavernous sinus thrombosis. The remaining CCF was unchanged. Anticoagulation was started with clin-

ical improvement. The patient was discharged 11 days after starting anticoagulation, with controlled intraocular pressure and only moderate proptosis and chemosis.

Conclusion: This case posed several diagnostic and management challenges. The acute worsening of the proptosis and chemosis after angiography raised the suspicion of re-opening of the direct CCF, although the underlying mechanism would be difficult to explain. The absence of bruit argued against this diagnosis. We hypothesized that the hyperviscosity of blood following contrast administration, as well as some dehydration related to vomiting might have facilitated the left cavernous sinus thrombosis together with the haemodynamic changes related to the CCF. We stress the importance of a multidisciplinary team approach to these rare and not straightforward cases.

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Citation: Taveira et al. The puzzling case of proptosis worsening after a cerebral angiography. *International Journal of Clinical Neurosciences and Mental Health* 2017; 4(Suppl. 2):O18

Published: 20 Jun 2017

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

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