ECRONICON OPEN ACCESS

EC CLINICAL AND MEDICAL CASE REPORTS

Mini Case Study

A Suicide Attempt Complicated by a Carotid Dissection

Omar El Aoufir[1]*, Sara Hassani[2], Firdaous Touarsa[1], Mohamed Jiddane[1] and Meriem Fikri[1]

[1]Neuroradiology Department, University Hospital Center IBN Sina, Medicine Faculty of Rabat, Mohamed V University, Morocco

[2]Cardiology Department, University Hospital Center IBN Sina, Medicine Faculty of Rabat, Mohamed V University, Morocco

***Corresponding Author:** Omar El Aoufir, Neuroradiology Department, University Hospital Center IBN Sina, Medicine Faculty of Rabat, Mohamed V University, Morocco.

Received: August 21, 2020; **Published:** September 29, 2020

Abstract

Suicide attempts are increasing, especially in this period of containment following the VIDOC pandemic 19. The authors report the case of a young patient who presented with an extensive carotid dissection complicated by an ischemic stroke following a fall.

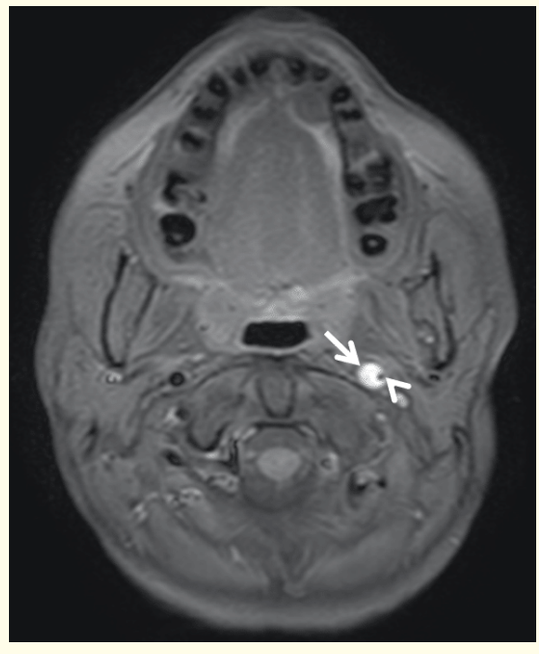
Keywords: *Carotid Dissection; Cerebral Ischemia; Suicide Attempt; MRI*

Introduction

Carotid dissection is an extreme emergency. It is the cause of a variety of neurological complications, such as ischemic stroke. Imaging plays an essential role in diagnosis.

Case Report

A 35-year-old patient, followed for a depressive syndrome under treatment, presented a right hemicorps deficiency 5 days after a suicide attempt (fall from the 2nd floor). The clinical examination found an aphasic and hemiplegic patient on the right side. MRI showed an ischemic vascular accident involving the left carotid area. Given the clinical context and topography of the cerebral ischemia, an MRI-angiography with injected sequences was performed (Figure 1).



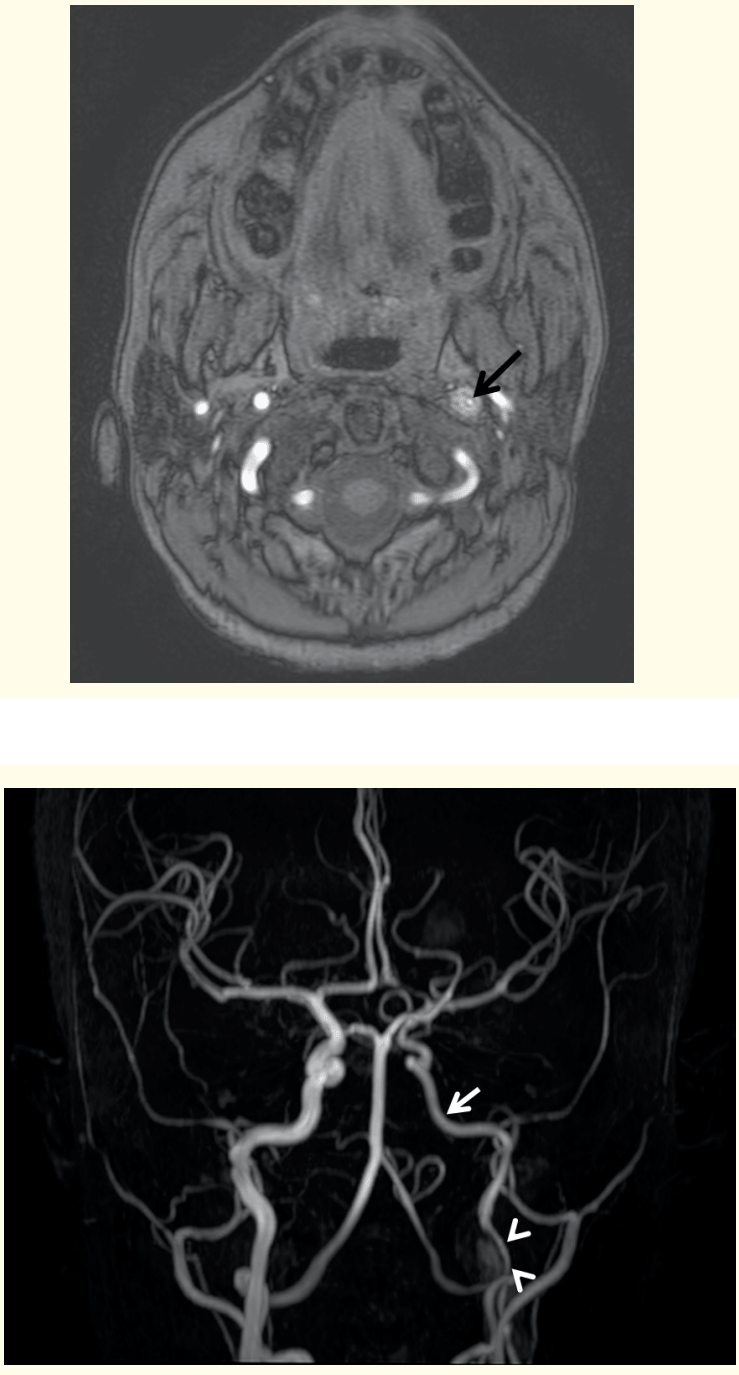


Figure 1: *Cerebral MRI in axial slices, T1 with fat saturation (a) and T1 after injection (b), showing the wall hematoma in hypersignal T1 achieving a crescent-shaped appearance (→) around the residual lumen in hyposignal (>) (a). On the injected sequence, note the weak opacification of the residual lumen (compressed by the hematoma) compared to the right side (→) (b). Reconstruction of the MRI angiogram from the front view objectivizing the long stenosis of the subpetrous internal carotid artery (>) with low opacification on the upstream side (→) (c).*

Discussion

Carotid dissections are a common cause of ischemic stroke. They can be spontaneous or traumatic. Vascular occlusion is secondary to a compressive phenomenon induced by a wall hematoma responsible for cleavage of the arterial wall following a breach of the intima or media [1]. The hematoma most often occurs in a mobile segment, not fixed by the bone structures. This was the case in our patient, with limited involvement of the subpetrous segment of the left internal carotid. The clinic associates local signs such as cervicalgia, nerve compression, Claude Bernard-Horner syndrome and deficient neurological signs. MRI allows identification of the peri-arterial wall hematoma using T1 sequences with fat saturation by visualizing a crescent-shaped hypersignal that is off-centered with respect to the residual vascular lumen [1]. The MRI angiologist finds a long and progressive stenosis of the affected vascular segment. Treatment is based on anticoagulant therapy with angioplasty-stenting discussed on a case-by-case basis [2].

Conclusion

Any suicide attempt followed by an ischemic stroke involves looking for a carotid dissection. It's an extreme emergency. Imaging is critical to the diagnosis.

Bibliography

1. Ben Hassen W., *et al.* "Imaging of cervical artery dissection". *Diagnostic and interventional Imaging* 95 (2014): 1135-1147.

2. Jeon P., *et al.* "Emergent self-expanding stent placement for acute intracranial or extracranial intern at carotid artery dissection with significant gemodynamic insufficiency". *American Journal of Neuroradiology* 31.8 (2010): 1529-1532.

Volume 3 Issue 10 October 2020