

Mild Traumatic Brain Injury Associated with Internal Carotid Artery Dissection and Pseudoaneurysm

Dear Editor,

In severe trauma, in 1% to 3% of the patients can be verified vascular injuries in neck vessels.^[1] Recent studies have described a higher prevalence of blunt cervical vascular injury.^[2,3] Death associated with internal carotid pseudoaneurysm is 20% to 30% of the cases.^[4] Most of these injuries are associated with high-energy trauma in motor vehicle accidents.^[3] However, carotid artery dissection and pseudoaneurysm in mild trauma is a very rare disease.

A 27-year-old female patient, admitted after a car accident, with bruise in the neck and 14 points in the Glasgow Coma Scale (GCS) with normal skull computed tomography. She remained with significant neck pain, and then, we performed cervical angiogram [Figure 1] that revealed an internal carotid artery (ICA) pseudoaneurysm. An angiogram [Figure 2] confirmed pseudoaneurysm and dissection. The patient was treated with carotid stenting, uneventful. She was discharged with 15 points in the GCS, without motor deficits.

Traumatic lesions of the ICA may occur associated with only cervical pain^[5,6] as in our patient. However, this is a special case because involves low-energy trauma. A great number of dissections can be treated with medical therapy and <10% progress to a pseudoaneurysm. In vascular injuries like in our patient, the endovascular intervention is indicate to occlude the pseudoaneurysm to decrease the risk of future hemorrhages and neurological deficits.^[3] The important point that we observed with this rare clinical case is that clinical suspicion is necessary for carotid artery injury, even in traumas without decrease of the level of consciousness.

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Conflicts of interest

There are no conflicts of interest.

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Figure 1: Computed tomography angiography showed pseudoaneurysm in the right internal carotid artery

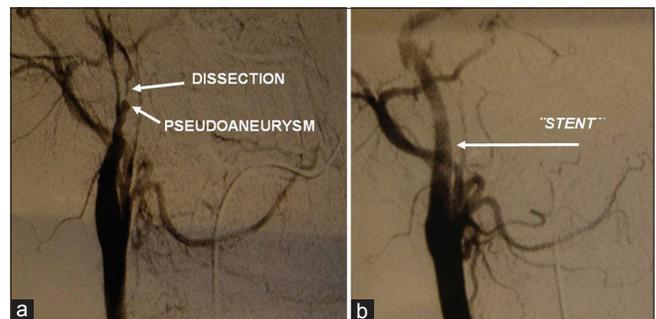


Figure 2: Digital angiography image. In (a) preoperative image showing pseudoaneurysm and dissection in internal carotid artery and (b) postoperative image showing improve of dissection segment with stent

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