



CASE REPORT

Common carotid pseudoaneurysm mimicking abscess cervical: case report

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Abstract: The case reported case of patient 23-year-old female referred to the Hospital de Base de São José do Rio Preto-Brazil with cervical bulging, which began 2 months ago, with suspected abscess on tomography. She then raised the urgency of a surgical approach for drainage. Therefore, laboratory tests were requested, which were within normal limits. And also, a neck angiotomography that revealed the presence of a pseudoaneurysm in the common carotid artery. He underwent endovascular treatment which progressed uneventfully and then drainage of the hematoma. Carotid artery pseudoaneurysms are rare and surgical or endovascular approaches are options that must be evaluated in each case. In this patient, the risks of each procedure were analyzed, and the endovascular option was the lowest risk option and was effective.

Key words: Angiotomography; pseudoaneurysm; abscess; differential diagnosis

INTRODUCTION

Pseudoaneurysms are the result of various conditions such as rupture of the arterial wall, trauma, secondary to inflammation, iatrogenic causes such as surgery, percutaneous biopsy or drainage¹. Carotid aneurysms are rare and mostly described as case reports where surgical or endovascular approaches can be the main treatment option². Endovascular approaches have been reported as rare case reports and constitute one of the main approaches³.

One of the review articles reports four cases of giant pseudoaneurysm of the extracranial carotid artery greater than four cm after traumatic injury to the neck, therefore few cases in the literature⁴. One of the reports describes the association with epistaxis where the endovascular procedure was performed⁵. Another report describes three cases associated with a wartime bomb explosion in Pakistan and the endovascular approach was performed⁶. Surgical procedures such as tracheotomy have been reported as a cause of carotid injury with pseudoaneurysm formation⁷. The association with abscess was described in one of the case reports⁸. The objective of the present study was to report a case of pseudoaneurysm of the common carotid artery with endovascular treatment.

CASE REPORT

Female patient, 23 years old, suffered a trauma 5 months ago, after a motorcycle x truck collision, suffering a TBI and underwent decompressive craniectomy, but developed hydrocephalus and underwent ventriculoperitoneal shunt. She was admitted to the intensive unit care (ICU) for 4 months and required a tracheostomy.

Three months ago, she developed a hematoma in the right cervical region, after a puncture in the scapular region and, with the edema improving, local nodulation began with progressive growth. 1 month ago, she was discharged with a tracheotomy and nasoenteral tube and 20 days ago, she presented with a secretive cough, fever and desaturations, being diagnosed with pneumonia and was treated. A cervical bulge was found, which was hypothesized to be a cervical abscess. Therefore, he was referred to a reference center. A neck tomography was performed, which revealed a collection of blood content measuring 7 x 6 x 5.5 cm in the right cervical region with signs of active bleeding (estimated volume of 120 ml) and contact with the common carotid artery, being compatible with a pseudoaneurysm. (Figure 1,2) and figure 3 and 4 endovascular diagnosis and treatment.



Figure 1. Hematic collection with signs of active bleeding, compatible with pseudoaneurysm

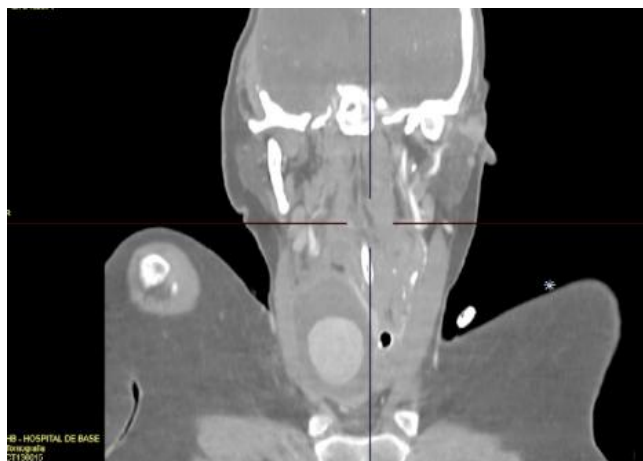


Figure 2. Blood collection with signs of active bleeding, compatible with pseudoaneurysm



Figure 3. Angiography showing signs of active bleeding, compatible with pseudoaneurysm



Figure 4. Underwent endovascular procedure is the insertion of an endoprosthesis with satisfactory results.

DISCUSSION

The present study reports the endovascular approach in a patient with suspected cervical abscess, where the therapeutic option was endovascular. The main forms of approach, in the few cases reported in the literature, are surgical or endovascular. The management of this patient was one of the options, but the safest in the face of a possible abscess located in a prime area where the surgical risk was greater. However, the possible aggravation of the endovascular procedure is the insertion of an endoprosthesis in an infected area.

Pseudoaneurysms, which have been published in some clinical cases, generally affect the femoral artery, followed by the brachial, subclavian radial and others. Therefore, carotid artery involvement stands out as a rare occurrence. Regarding the pseudoaneurysm clinic, in this patient, the warning was the visualization of a mass in the pulsatile cervical region, causing compression of adjacent structures. In this case, the patient had several invasive interventions in these regions, as a probable cause of this pseudoaneurysm, perhaps there was a lack of more detailed observation of this bulging in the region during this period.

When approaching this patient, there was doubt as to the infectious condition and a diagnostic puncture of the material, after carrying out endovascular treatment, to direct antibiotic therapy, in the case of an abscess. It is known that when faced with a neck mass, an abscess should always be suspected, due to the severity of the case and the earliest possible treatment. Complementary tests are essential to define the diagnosis and, in this case,

CT angiography was effective. In summary, these are challenging cases where the lowest mortality approach must be adopted.

CONCLUSION

Carotid artery pseudoaneurysms are rare and surgical or endovascular approaches are options that must be evaluated in each case. In this patient, the risks of each procedure were analyzed and the endovascular option was the lowest risk option and was effective.

Conflict Interest and financial support

The authors declared no have financial support and conflict interest.

Data Availability statement

The data used to support the findings of this study are included within the manuscript.

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