Carotid Artery Aneurysm

E. LUCIO MARINO¹, ALEJANDRO HERSHSON^{MTSAC}, ², HECTOR RAFFAELLI^{MTSAC}, ³

The image is of a female patient, aged 59, whose admission to hospital referred the presence of a tumor in the upper third of the right cervical region of 2 months of evolution. Pain was also expressed in the jaw and auricle spontaneously and associated with chewing. On physical examination revealed a pulsatile mass, painful on palpation, without audible murmur or fremitus. The patient is hypertensive, dyslipidemic and former smoker. She has not history of trauma in the region or preexisting diseases.

It was carried out an echo-Doppler of the neck vessels that showed an eurysmal dilatation of the right internal carotid artery of 29×22 mm with turbulent flow inside.

The diagnosis was confirmed by angiography of neck vessels that showed aneurysmal dilatation of the right internal carotid.

She was evaluated in the Cardiovascular Surgery Department, it was decided to reestablish the carotid circulation through the interposition of a venous conduit.

NOTE

Carotid aneurysms (CA) are a rare entity, with an incidence ranging from 0.1% to 3.7% in larger series. (1)

The CA are classified into two categories: true aneurysms and pseudoaneurysms. Their differentiation is important in order to determine treatment. About 14% of the CA are pseudoaneurysms. (2)

The most frequent etiology is atherosclerosis, ranging from 34% to 70% in the published series. The traumatic ones follow in frequency and, finally, the ones of infectious cause (syphilis, Salmonella and HIV). (1,3)

The most frequent clinical presentation are neurological symptoms (transient ischemic attack and CVA) and the presence of a pulsatile mass. Compressive symptoms are less common, which may affect the pharyngeal constrictor muscle or cranial nerves I, IV, V, VI, VII, VIII, IX, X and XII. (1)

The initial method of diagnosis is the vascular echo-Doppler; it is followed by the algorithm with CT or NMRI. Angiography of neck vessels is not necessary in all cases

Nowadays the treatment of choice is surgery. Aneurysmectomy may be carried out with a Dacron patch, terminoterminal anastomosis, vein patch or by an anastomosis between the external carotid and distal internal carotid artery. (4, 5)



In cases in which surgical treatment cannot be carried out, there is the option of endovascular treatment with covered stents. The experience with these devices is limited and follow-up is short, which is why it is considered a second choice. (6)

BIBLIOGRAPHY

- 1. Longo GM, Kibbe MR. An eurysm of the carotid artery. Semin Vasc Surg 2005; 18: 178-83.
- **2.** El-Sabrout R, Cooley DA. Extracranial carotid artery aneurysms: Texas Heart Institute. J Vasc Surg 2000;31:702-12.
- 3. Radak D, Davidović L, Vukobratov V, Ilijevski N, Kostić D, Maksimović Z, et al. Carotid Artery: Serbian Multicentric Study. Ann Vasc Surg 2007;21:23-9.
- **4.** Rosset E, Albertini JN, Magnan PE, Ede B, Thomassin JM, Branchereau A. Surgical treatment of extracranial internal carotid artery aneurysms. J Vasc Surg 2000; 31:713-23.
- Zhou W, Lin PH, Bush RL, Peden E, Guerrero MA, Terramani T, et al. Carotid artery aneurysm: Evolution of management over two decades. J Vasc Surg 2006;43:493-6.
- 6. Szopinski P, Ciostek P, Kielar M, Myrcha P, Pleban E, Noszczyk W. A series of 15 patients with extracranial carotid artery aneurysm: Surgical and endovascular treatment. Eur J Vasc Endovasc Surg 2005;29:256-61.

 $^{^{\}mbox{\tiny MTSAC}}$ Full Member of Sociedad Argentina de Cardiología

¹ Resident Physician of Cardiology - Hospital Favaloro

² Cardiologist. Head of Outpatient Department - Hospital Favaloro

³ Cardiovascular Surgery - Hospital Favaloro