Neurocirugia. 2019;30(Espec Congr):3

Neurocirugía

https://www.revistaneurocirugia.com

C0088 - SURGICAL RECONSTRUCTION OF HIGH INTERNAL CAROTID ARTERY TORTUOSITY USING ENDOSCOPIC ASSISTANCE

V. Lukianchikov[1], *O. Kordonskaya*[1] *and R. Hasauov*[2]

[1]*Sklifosovsky Research Institute of Emergency Care, Moscow, Russia.*[2]*Kabardino-Balkarian State Republican Clinical Hospital, Nalchik, Russia.*

Resumen

Objectives: High internal carotid artery (ICA) tortuosities are defined as occurring above the line connecting the angle of the mandible and the apex of the mastoid process, in the projection C1–C2 of the cervical vertebrae. Surgical correction is traumatic and requires additional techniques and experienced surgeons. The present study aimed to evaluate the results of endoscope-assisted surgical reconstruction of high ICA tortuosity.

Methods: Between 2017 and 2018; 10 patients with high, hemodynamically significant ICA tortuosity were treated with endoscope-assisted surgery. The mean age was 43 (43-82) years. Patients reported headaches and symptoms of vertebrobasilar insufficiency. Eight patients had tinnitus, one had ischemic stroke, and one had transient ischemic attack in the MCA territory from the side of tortuosity. All patients underwent duplex ultrasound (DU) with blood velocity monitoring, computed tomographyangiography (CTA), and brain magnetic resonance imaging (MRI). Signs of ischemic lesion from the side of tortuosity were identified by MRI in two patients. All patients had ICA elongations, four had coiling and six had kinking elongations with the absence of atherosclerotic lesions of the carotid bifurcation (isolated elongation). Closed circle of Willis was observed in all cases. All patients underwent ICA reconstruction, and endoscopic assistance was applied during tortuosity mobilization.

Results: Postoperatively, there was a clear positive trend in the patients' neurological status. Seven days postoperatively, all patients showed improvements in dizziness with complete regression observed in four. Regression of tinnitus was observed in seven patients. At the control CTA and DU, pathological tortuosity was eliminated and regression of hemodynamic deficit was noted. There were no postoperative complications.

Conclusions: Our results confirm the efficiency and safety of surgical reconstruction of high ICA tortuosity using endoscopic assistance. Use of this method reduces the risk of soft tissue and neurovascular structure damage, and improves functional outcomes.