



POSTER

# Multiple iatrogenic lesions after preoperative embolization of hypervascular nasal tumor

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## Abstract

**Introduction:** Pre-surgical embolization of head and neck tumors is an established procedure, aimed to decrease the blood loss during surgery and to facilitate complete resection. However, severe complications might occur during these embolizations.

**Case Presentation:** A 34-year-old woman with a vascularized benign tumor in the right nasal cavity was referred for pre-surgical embolization. Tumor was devascularized with embolic microspheres, injected at the origin of the sphenopalatine artery. After the embolization, the patient complained of loss of vision on the right (became amaurotic) and selective injections depicted a previously unseen anastomosis between the branches of the sphenopalatine and the ophthalmic artery (via ethmoidal branches). Alteplase was injected into the ophthalmic artery ostium, to try to restore flow in the central retinal artery (without success). After the procedure, left hemiparesis was observed and MRI showed cerebral infarcts in the right carotid territory secondary to

iatrogenic dissection of the right internal carotid artery. Iatrogenic livedo reticularis also occurred in the glabellar and right malar region.

**Discussion:** The reported incidence of a severe complication associated with pre-surgical embolization of head and neck tumors is less than 2%. One of the most feared complications is central retinal artery occlusion. Arterial dissections might occur during endovascular procedures but are seldom symptomatic. During endovascular treatment of stroke, an incidence of carotid dissections between 0.25–3.5 was reported. In therapeutic procedures, the risk may be higher due to the more frequent exchange of catheters and the greater number of passages of these devices.

**Conclusion:** Multiple severe iatrogenies occurred, despite the adequate technical execution. Pre-surgical embolization is not free of risks, and requires multidisciplinary discussion and rigorous technical planning.

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