Endovascular treatment of Carotid Blowout Syndrome: Case Report

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Background: Carotid blowout syndrome refers to the rupture of carotid artery, being a rare and fatal complication in patients treated for head and neck cancer. Carotid procedures in previously irradiated neck are technically demanding and pose an increased risk of complications. Endovascular treatment with either permanent carotid occlusion or reconstructive stenting are good options.

Objective: To present a carotid blowout syndrome treated with reconstructive stent graft.

Clinical case: A 48 years old man was diagnosed with hypopharynx cancer (epidermoid carcinoma cT4N2cM0) for what he has done chemotherapy and radiotherapy for 9 months. Revaluation CT one year after the diagnosis showed no signs of the disease. Three months after, he presents at Emergency Room with haemoptysis and hypovolemic shock. CT and CT-angiography scans showed infiltrative lesion of pharynx with necrosis and ulceration, revealing exposed left common and internal carotid arteries without contrast extravasation. In multidisciplinary discussion was decided to take the patient to the angio-room. The injection in the left common carotid artery showed a filling defect and concentric stenosis of the carotid bulb, that were successfully repaired using a covered stent graft in the common and internal carotid arteries. The stent was expanded using a balloon catheter for optimal coverage. The patient remained under dual antiplatelet therapy and was asymptomatic for 2 months, after what he re-started the haemoptysis. It was decided for expectant approach and the patient died 2 days after.

Conclusion: The efficacy of endovascular treatment with stent versus carotid sacrifice for the carotid blowout syndrome is not well established. More studies are warranted to understand the best approach for these patients.