



Carotid Blowout Syndrome of an Infected Pseudoaneurysm after Radiation Therapy of Parotid Cancer: Successful Multidisciplinary Treatment with Coiling, Pseudoaneurysm Excision, Debridement, and Plastic Reconstruction

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A 73-year-old man visited emergency room due to recurrent bleeding from the neck wound. Nineteen years ago, he was performed resection and radiation therapy of right parotid cancer. One year ago, he developed osteoradionecrosis of right mandibular angle, and multiple operations were performed; debridement, skin grafts and flaps, and partial mandibulectomy. However, 9 months ago, a pustule developed at the operation site and conservatively managed by dressing. From two weeks earlier, three massive herald bleedings developed from the wound, which was controlled by compression. Physical examination revealed the crusted wound with hematoma over the exposed carotid artery and another wound with mandibular bone exposure (Fig. 1). The neck was tightly fibrotic and fixed due to the previous radiation therapy. Computed tomography (Fig. 2) showed a pseudoaneurysm from the right carotid bifurcation, and occluded right internal carotid artery. Because of the high risk of rebleeding, emergent coil embolization was performed (Fig. 3). After 6-day antibiotic therapy, the wound was explored under general anesthesia. After removing the crust with hematoma, ruptured carotid artery and the coils inside the pseudoaneurysm were exposed (Fig. 4). After debridement, the both ends of the carotid artery were sutured with polypropylene. The wound was reconstructed with pedicled pectoralis major myocutaneous flap and split thickness skin graft (Fig. 5). He survived more than 3 years until lost to follow-up due to pneumonia.

Carotid blowout syndrome is a rupture of the carotid artery and a life-threatening complication [1]. It is mainly developed by radiation and surgery of head and neck cancer. Treatment includes coil embolization, covered stent graft, and surgical treatment [2]. Because of the previous radiation therapy and multiple operations in this case, surgical approach to ensure proximal and distal control of the ca-



Fig. 1. Initial presentation at the emergency room. The crusted wound with hematoma was located just over the carotid pulsation (arrow), and another small wound showed exposed mandible (arrow head).

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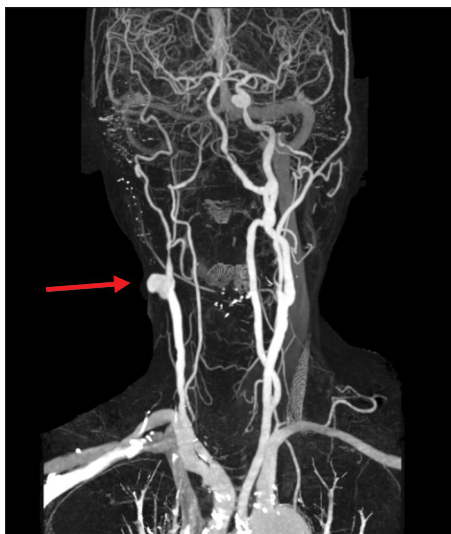


Fig. 2. Computed tomography angiography showed a pseudoaneurysm (arrow) at the right carotid bifurcation connecting to the skin, occluded internal carotid artery, and severely stenotic external carotid artery.



Fig. 3. Coil embolization of the carotid artery and the pseudoaneurysm was performed.

carotid artery was almost impossible. Moreover, the infected wound prohibited covered stent graft. A multidisciplinary

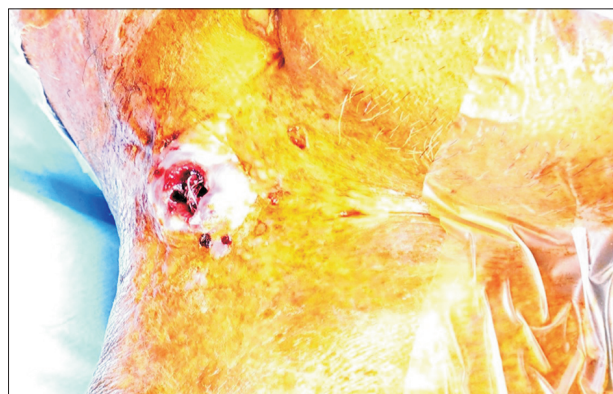


Fig. 4. After removing the crust, ruptured carotid artery and coils inside were exposed.



Fig. 5. Wound was reconstructed with a myocutaneous flap and skin graft.

approach with vascular surgeons, interventional radiologists, plastic surgeons and oncologic surgeons of maxillofacial surgery is particularly important in the management of carotid blowout syndrome to prevent a disaster [3].

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