A patient with hypopharyngeal cancer developed carotid blowout syndrome (CBS) treated by self-expandable stent-graft in the left carotid artery. CT scan for progressive right hemiparesis 4 months later showed multiple left cerebral abscesses and left carotid thrombosis. Although deployment of stent-grafts for CBS can achieve initial hemostasis in patients with head-and-neck cancer, the placement of a stent-graft in a field of necrosis and infection is associated with poor long-term outcome. We recommend the use of prophylactic antibiotics if endovascular foreign materials are placed in a contaminated field.
may result in localization and persistence of infection as a result of colonization of the foreign material by infective organisms. Persistent infection of a foreign body may also inhibit neointimal formation inside the stent and growth of vascular soft tissue surrounding the stent, both of which ultimately cause thrombosis of the carotid artery. With our patient, deployment of a self-expandable stent-graft achieved initial hemostasis but only short-term preservation of the carotid artery. Septic thrombosis of the carotid artery and stent in a field with contaminated necrosis acts as a source of septic emboli, which cause multiple brain abscesses. This sequence of events favors the conclusion that the stent-graft has a role limited to initial and temporary hemostasis in management of CBS in patients with head-and-neck cancer complicated by necrosis and infection.

Intracranial infection following endovascular therapy for cerebrovascular disease is a rare complication. There are 5 reported cases of cerebral abscess following endovascular therapy in the literature through 2002. Infection of peripheral endovascular stents is also rare, but it can have serious consequences. These authors have emphasized the need to take extreme precaution in ensuring good aseptic technique during a foreign-body deployment. Because of the risk of infection of endovascular stents in a field with contaminated necrosis, antibiotic prophylaxis was suggested during and after stent deployment in a swine model study. Because many postoperative wound infections of head and neck surgery are polymicrobial, antibiotic prophylaxis should target Gram-positive, Gram-negative, and anaerobic organisms. In a study...
of 212 evaluable patients, the sulbactam-ampicillin is clinically more effective than clindamycin for the prophylaxis of wound infection. With our patient, the stent-graft was placed inevitably in a carotid artery in a contaminated field. Because antibiotics were not used during or after the procedure in our case, the stent could be a factor for persistent local infection and septic thrombosis of the left carotid artery for the 4 months after procedural management. This suggests the use of prophylactic antibiotics is wise if endovascular foreign materials are placed in a contaminated field.

Conclusion
Deployment of self-expandable stent-grafts in a field with contaminated necrosis as part of management of CBS is not a safe way to achieve enduring hemostasis in patients with head-and-neck cancer. Stent placement may be complicated by septic thrombosis of the carotid artery and brain abscess formation. Prophylactic antibiotics are recommended in these patients.

References