Methods A patient undergoing transfemoral CAS with flow-reversal through a Walrus BGC was monitored with a rTCD device (Figure 1).

Results Red color at the depth of the ICA terminus indicates forward flow (Figure 1). Prior to crossing the plaque for placement of a distal filter and/or angioplasty, we inflate the BGC and open the three-way stopcock, allowing back bleed. At this moment, the rTCD shows a change in blood flow direction, indicated as change from red to blue (Figure 1), which likely occurs due to a passive pressure gradient between the intracranial compartment and the atmospheric pressure. Then, the filter is placed with reduced risk of displacing plaque fragments, and angioplasty and stenting are performed with dual-layer of protection.

Conclusions This technique may confer greater safety CAS with flow-arrest or without proximal protection. Though in this case rTCD was used for proof of concept, it can be also employed as an embolic monitoring tool during carotid artery procedures.


E-164 RECURRENT STROKES AS THE INITIAL PRESENTATION OF COLORECTAL ADENOCARCINOMA
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Introduction The relationship between thromboembolism and cancer was first described by Trousseau in 1865, who discovered the incidence of thromboembolic events in patients with cancer to be 15% in clinical findings and up to 50% in post-mortem studies. The hypercoagulable state in patients with cancer, because of endothelial damage and vascular compression or infiltration, is responsible for the formation of thrombi which may lead to ischemic strokes. In contrast, marantic endocarditis (non-bacterial thrombotic endocarditis, or NBTE), arterial tumor emboli, and septic emboli are common causes of embolic strokes in cancer patients.

Methods Single case study
Case Description The authors present the case of a patient with no past medical history who presented with multiple cranial nerve deficits of the right trigeminal, facial, and hypoglossal nerves. MRI of the brain revealed a mass in Meckel's cave, which explained the involvement of the trigeminal nerve (CN V), but not the facial (CN VII) and hypoglossal (CN XII) nerves. Further workup revealed multiple cardioembolic strokes caused by NBTE. Extensive workup for the cause of his NBTE and subsequent cerebrovascular events revealed colorectal adenocarcinoma.

Conclusion Cryptogenic strokes in patients with cancer are cardioembolic manifestations of cancer-mediated hypercoagulability such as NBTE, which consists of sterile, platelet-fibrin vegetations on cardiac valves. The mechanism of thromboembolism in patients with cancer is based on the interaction between tumor cells and leukocytes, which creates a thrombogenic vascular lining and induces the release of substances that activate the coagulation cascade. The diagnosis of NBTE should depend on the distribution of occluded vessels, identification of thrombus, and exclusion of other possible causes such as infective endocarditis. Echocardiography is critical to diagnosing NBTE. Treatment of NBTE is poorly defined but should be directed at preventing systemic embolization and managing underlying malignancy, with long-term antiocoagulation recommended by the American College of Chest Physicians. Unfractionated heparin is currently recommended to reduce rates of ischemic stroke in patients with cancer.

E-165 WOVEN ENDOBRIDGE VERSUS STENT-ASSISTED COIL EMBOLIZATION OF CEREBRAL BIFURCATION ANEURYSMS

Background Stent-assisted coil (SAC) embolization has been the mainstay endovascular treatment for bifurcation aneurysms. Recent introduction of the Woven EndoBridge (WEB) device has presented an alternative endovascular treatment modality for these aneurysms. Direct comparison of outcomes between the two modalities in the literature are limited.

Objective To compare the outcomes of bifurcation aneurysms treated using SAC and WEB.

Methods This is a retrospective, single-center study, comprising 148 bifurcation aneurysms treated endovascularly using SAC or WEB devices between 2011 and 2019. The primary outcome was complete occlusion of the aneurysm at 6 months based on catheter angiography.

Results The SAC and WEB cohorts comprised 85 and 63 aneurysms, respectively. The baseline characteristics were well balanced after IPW adjustment except for smoking status. The 6-month complete occlusion rate was higher in the WEB vs. SAC cohort (67.4% vs. 40.6%; unadjusted OR=3.014 [1.385–6.563], p=0.005). However, this difference in complete occlusion rates did not remain significant after inverse probability