Results There were 238 patients who met inclusion criteria. Mean age was 69.7 years and the majority of patients were male (69.7%). Most patients had one or two major comorbidities (52.9%), and 21.4% had more than two major comorbidities. 62.2% underwent CAS for symptomatic carotid stenosis. Fourteen patients (5.9%) experienced new or recurrent ipsilateral ischemia during follow-up, with eight (3.4%) experiencing a stroke with permanent neurologic deficit. 59 patients (24.8%) died during follow-up with a median to time to death of 111.3 months (95% CI: 95.1 – 133.6) on Kaplan-Meier analysis. Increasing age at time of CAS (Unit Risk ratio (1.06, 95% CI 1.02–1.10, p=0.005) and more than two major comorbidities (RR 3.82, 95% CI 1.28–11.49, p=0.02) were independent risk factors for mortality during follow-up.

Conclusion Unlike population-based studies, our results indicate acceptable long-term survival rates after CAS in adequately selected patients.

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E-117 SAFETY AND EFFICACY OF ACUTE EMERGENT CAROTID STENTING TREATMENT FOR SYMPTOMATIC CAROTID STENOSIS

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Introduction Carotid endarterectomy and carotid stenting (CAS) have shown comparable outcomes in symptomatic patients. However, the optimal timing of CAS is debatable. We aim to evaluate the safety and efficacy of CAS when performed emergently during hospitalization of symptoms onset as compare to an elective procedure in a subsequent admission.

Methods We performed a retrospective analysis of CAS patients admitted to our comprehensive stroke center and included all the patients with TIA/stroke and ipsilateral extracranial carotid stenosis >50% from January 2015 to September 2019. Medical records were reviewed for demographics, clinical data and outcomes. The primary outcome was defined as any stroke, myocardial infarction or death related to the procedure at 3 months of follow-up. Secondary outcomes were minor neurological (seizures or TIA at discharge) and non-neurological (bradycardia, hypotension, groin ecchymosis and/or hematoma, retroperitoneal hematoma, pneumonia, and atrial fibrillation at discharge) complications at discharge, and rate of restenosis or occlusion at follow-up (defined as a Peak Systolic Velocity by duplex ultrasonography greater than 300 cm/s or stenosis greater than 70% by angiography). Stepwise backward multivariable regression and Time-to-event analyses were used for comparisons.

Results We identified 75 emergent and 104 elective patients. Emergent differed significantly from elective patients in the rates of dyslipidemia (44% vs. 66%, p=0.003), length of hospitalization (4.9% vs. 1.2%, p=0.002), ipsilateral carotid occlusion (17% vs. 2%, p<0.001), general anesthesia (19% vs. 4%, p=0.001) and treatment with Tirofiban during procedure (13% vs. 4%, p=0.008). There was no significant difference in primary outcome (9.3% vs. 3.8%, p=0.21), minor neurological (3% vs. 0.9%, p=0.572) or non-neurological (15% vs. 11%, p=0.411) complication rates. CAS is not associated with the primary outcome (OR: 3.29, CI: 0.83 – 16.2, p=0.18) after adjusting for ipsilateral carotid occlusion. Treatment with Tirofiban during procedure was associated with all minor complications (OR: 2.88, CI: 1.53 – 5.43, p<0.001) after adjusting for male sex and age >75 years. Of all the 23 minor complications, 8 (34.7%) were due to groin and retroperitoneal hematoma. The Kaplan-Meier estimate for the frequency of restenosis or occlusion was 7% for emergency CAS group and 11.6% for elective CAS group with a mean follow-up of 12.8 months (log rank p=0.3).

Conclusions CAS in emergency symptomatic patients has comparable safety outcomes to elective patients at 3 months follow-up. Similarly, both groups have similar rates of restenosis at long-term follow-up (12.8 months).

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E-118 OUTCOMES AFTER ELECTIVE CAROTID ARTERY STENTING: A SINGLE-CENTER REAL-WORLD EXPERIENCE

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Introduction The most current randomized clinical trial comparing carotid artery stenting (CAS) to carotid endarterectomy for short-term and long-term prevention of strokes demonstrated comparable results. In our study, we present a retrospective review of a real-world single-center experience in the treatment of elective CAS, with a focus on peri-procedural and long-term outcomes and a comparison of outcomes with those reported by CREST for CAS.

Materials and Methods All elective CAS cases from January 2015 to December 2019 were retrospectively reviewed. Cases were performed by three experienced neuro-interventionalists. Data regarding patient characteristics, intra-procedural findings, and post-procedural events were extracted from the medical record. The primary endpoint was defined as peri-procedural (<30 days) stroke, myocardial infarction, or death and post-procedural ipsilateral stroke.

Results Seventy-three patients who underwent elective CAS were identified (median age 71, 59% male, 78% Caucasian). Major comorbidities included hypertension (88%), dyslipidemia (82%), and diabetes mellitus (40%). Eighty-one percent of the patients were former or current smokers. Left-sided disease was treated in 39 patients (53.4%), with a median stenosis of 75% (IQR 70–88.8%), and 89.0% of cases were symptomatic. Asymptomatic stenting was most commonly performed due to concern for artery-to-artery embolism in patients with a prior history of artery-to-artery stroke of the contralateral side. Contralateral disease was present in 41.1%, with median stenosis of 50%. Angioplasty was used prior to stenting in 97.3% of patients and embolic protection devices in 93.2%, with a 100% procedural technical success rate. Pre-procedure and post-procedure dual antiplatelet (DAPT) prescribing rates were 100%. Aspirin platelet inhibition was therapeutic in 69.8% of cases and clopidogrel inhibition in 87.7% of cases.