Background: Anesthetic technique for carotid endarterectomy (CEA) is controversial and determined primarily by surgeon preference. However, certain advantages may exist for general anesthesia (GA) compared to cervical block anesthesia (CBA) in terms of complications. We analyzed if the type of anesthesia was an independent predictor of 30-day outcomes after CEA.

Methods: We performed a retrospective analysis of the American College of Surgeons National Surgical Quality Improvement Program (NSQIP) patients undergoing carotid endarterectomy between 2012 and 2016. Complications were determined using logistic regression analysis to determine independent risk factors of outcomes for patients undergoing CEA with GA or CBA.

Results: Of 20,415 patients who underwent CEA, there was no difference in the 30-day postoperative composite or individual outcomes of stroke, myocardial infarction (MI), or death rate based on anesthetic type (P=NS). After logistic regression analysis, GA was an independent predictor of length of stay (LOS) greater than one day compared to CEA (45.1% vs. 29.6%, OR 1.95, P<.0001). GA was an independent predictor of discharge destination other than home (6.8% vs 4.4%, OR 1.53, P<.0001). Cranial nerve injury was also increased in patients who underwent CEA using GA (2.9% vs. 1.6%, OR 1.86, P<.0001).

Conclusion: This large database revealed that anesthesia technique during CEA did not impact 30-day postoperative outcomes for stroke, MI or death, but GA negatively impacted LOS, discharge destination, and cranial nerve injury compared to RA.

Author Disclosure