Abstracts

Improving the Prognosis of Patients with Acute Ischemic Stroke Treated in the Late Time Window after the Introduction of Advanced Imaging: Benefits from Thrombectomy in the Extended Time Window

K. Seo, J. Yoo, P. Yoon, 1Neurology, National Health Insurance Service Ilsan Hospital, Goyang, Korea, Republic of; 2Neurology, National Health Insurance Service Ilsan Hospital, Yongin, Korea, Republic of; 3Radiology, National Health Insurance Service Ilsan Hospital, Goyang, Korea, Republic of

Background Mechanical thrombectomy (MT) of ischemic stroke was recommended as a clinical guideline in 2015, and the indication for time was expanded in 2018 based on two clinical studies. We aimed to determine how much MT increased before and after the indications expanded in actual clinical practice, and how much the prognosis was improved.

Methods We obtained data from medical records of our hospitals from 2016 to 2020. Since June 2018, patients for MT were selected using RAPID, a perfusion imaging processing software, so data from 2018 were excluded to compare the same two-year period. From 2016 to 2017, patients who did not receive MT among patients who visited the hospital within 24 hours from the last normal time were classified as standard care (SC) groups. Among patients who underwent MT between 2019 and 2020, patients who visited the hospital within 24 hours from the last normal time were classified into the extended MT (EMT) group and those who visited within 6 hours were classified into the standard MT treatment (SMT) group. Good outcome was defined as modified rankin scale (mRS)≤2, and a poor outcome was defined as mRS≥5.

Results From 2016 to 2017, 1,058 patients were hospitalized for ischemic stroke, of which 63 (6.0%) received MT, and 29 (2.7%) patients were classified into the SC group. Among 1,019 patients hospitalized for ischemic stroke between 2019 and 2020, 85 (8.3%) received MT, and 24 patients were in the EMT group. Among the SC group, only 3 patients (10.3%) had a good prognosis at 3 months and 18 patients (62.1%) had a bad prognosis. However, in the EMT group, 10 patients (41.7%) had a good prognosis at 3 months, and only 4 patients (16.7%) had a poor prognosis. Of the 61 patients in the SMT group, 28 (45.9%) had a good prognosis at 3 months and 16 (26.2%) had a bad prognosis. There was no statistical difference in prognosis between the EMT and SMT groups. However, compared to the EMT group, the SC group had a 6.1 times higher risk of poor prognosis (p=0.050).

Conclusions The number of patients with ischemic stroke who can receive MT has increased by extending the indications for MT time using advanced imaging software. In actual clinical practice, it was confirmed that patients treated based on the extended time indication also had a good prognosis.

Disclosures K. Seo: None. J. Yoo: None. P. Yoon: None.

Transfemoral Flow Reversal through Balloon Guide Catheter for Carotid Artery Stenting: Proof of Concept Using a Robotic Transcranial Doppler


Background Flow-reversal through transfemoral balloon-guide catheter (BGC) for carotid artery stenting (CAS) was described among the first embolic protection methods. However, the technique was never adopted due to lack of proof about flow-reversal and emboli count, and technical difficulties associated with older BGCs, such as stiffness and incompatibility with other catheters. We demonstrate flow-reversal through a Walrus BGC for transfemoral CAS, using a robotic transcranial doppler (rTCD) with the purpose of proof of concept.

Disclosures None.