## P.066

### Hemispheric Reorganization of Functional Language Networks Following Neonatal Stroke Supports Language Outcome

*Z Emami* (Toronto)* *BT Dunkley* (Toronto) *A Robertson* (Toronto) *R Westmacott* (Toronto) *P Krishnan* (Toronto) *EW Pang* (Toronto), *N Dlamini* (Toronto)*

doi: 10.1017/cjn.2021.346

**Background:** Neonatal Arterial Ischemic Stroke (NAIS) is a common form of paediatric stroke often affecting classical language areas. The post-stroke reorganization of functional language networks may provide insight into later-emerging language deficits and may help to identify at-risk children with NAIS. **Methods:** A cross-sectional study of fourteen children with left (n=8; 2M; 11.1±2.2 years) or right (n=6; 3M; 12.4±4 years) middle cerebral artery (MCA) NAIS, as well as seven neurotypical children (5M; 13.4±2.7 years), was conducted. Children listened to correct/incorrect syntactic sentences while MEG was recorded, and task-related functional connectivity in the time window and frequency band of interest was determined. Language outcomes were assessed using a battery of neuropsychological tests. **Results:** A network-based analysis of syntactic language processing (4-7 Hz, 1.2-1.4s) revealed a dysfunctional bilateral frontal-temporal network involving language areas in patients ($p$=0.01). Patients with right-MCA stroke exhibited a positive correlation between left hemispheric connectivity and measures of language skill ($p$<0.01), resembling the neurotypical children. In left-MCA stroke patients, greater bilateral connectivity or right laterality in the language network is correlated with good outcome ($p$<0.05). **Conclusions:** Depending on the hemispheric location of stroke, certain patterns of language network reorganization may account for impairments in a bilateral frontal-temporal language subnetwork and support language outcome.

## P.067

### A worldwide survey of physician approaches to patients with acutely symptomatic carotid stenosis ("hot carotid")

*A Ganesh* (Calgary)* *G Jewett* (Calgary) *DJ Campbell* (Calgary) *R Singh* (Greater Sudbury) *A Al-Sultan* (Calgary) *J Wong* (Calgary), *BK Menon* (Calgary)

doi: 10.1017/cjn.2021.347

**Background:** Patients with acutely symptomatic carotid stenosis ("hot carotid") have high up-front risk of recurrent strokes. Uncertainties remain regarding optimal anti-thrombotic management, particularly while awaiting revascularization with endarterectomy or stenting (CEA/CAS). **Methods:** We administered a worldwide electronic survey through *Neurology: Clinical Practice*. Respondents chose their preferred antithrombotic regimen (1) in a general case of acutely symptomatic carotid stenosis, (2) if the patient was already on aspirin, or (3) had associated intraluminal thrombus(ILT). Responses among different groups were compared using multivariable logistic regression. **Results:** We received 668 responses from 71 countries. Most respondents favoured CEA(69.1%) over CAS, an aspirin-containing regimen(88.5%), and a clopidogrel-containing regimen(64.4%) if already on aspirin. Monotherapy was favoured by 54.4-70.6% across scenarios. The preferred dual therapy was low-dose aspirin(75-100mg) plus clopidogrel(22.2%), or high-dose aspirin(160-325mg) plus clopidogrel if already on aspirin(12.2%). Respondents favouring CAS more often chose ≥2 agents (adjusted odds-ratio[aOR] vs CEA: 2.00, 95%CI 1.36-2.95,p=0.001) or clopidogrel-containing regimens (aOR:1.77,1.16-2.70, p=0.008). Respondents from Europe less commonly chose multiple agents (aOR vs United States/Canada: 0.57,0.35–0.93, p=0.023) while those from Asia more often favored multi-agent regimens (aOR:1.95,1.11–3.43,p=0.020). **Conclusions:** Our results highlight the heterogeneous anti-thrombotic management of hot carotids. Future trials should likely include high-dose aspirin monotherapy or low-dose aspirin/clopidogrel dual-therapy as a comparator arm to stimulate enrolment.

## P.068

### Discrepancy between post-treatment infarct volume and 90-day outcome in ischemic stroke: A validation study in the ESCAPE-NA1 randomized controlled trial

*A Ganesh* (Calgary)* *JM Ospel* (Basel) *BK Menon* (Calgary) *AM Demchuk* (Calgary) *RG Nogueira* (Atlanta) *RA McTaggart* (Providence) *AY Poppe* (Montreal) *MA Almekhlafi* (Calgary) *RA Hanel* (Jacksonville) *G Thomalla* (Hamburg) *S Holmin* (Stockholm) *V Puetz* (Dresden) *BA van Adel* (Hamilton) *JW Tarpley* (Torrance) *M Tymianski* (Toronto) *MD Hill* (Calgary), *M Goyal* (Calgary)

doi: 10.1017/cjn.2021.348

**Background:** Some patients do poorly despite small infarcts after endovascular therapy(EVT) whilst others with large infarcts do well. We validated exploratory findings from the ESCAPE trial regarding factors associated with such discrepancies, in the ESCAPE-NA1 trial(NCT02930018). **Methods:** We identified "discrepant cases" with modified Rankin Scale(mRS)≥3 despite small follow-up infarct volume(FIV≤25th-percentile) on 24-hour CT/MRI or mRS≤2 despite large FIV(volume≥75th-percentile). We compared area-under-the-curve(AUC) of pre-specified logistic models containing (a)pre-treatment factors(age/cancer/vascular risk-factors) and (b)treatment-related/post-treatment factors(-serious adverse events/SAEs) in identifying small-FIV/mRS≥3 and large-FIV/mRS≤2, with stepwise regression-derived models. **Results:** Among 1,091 patients, 42/287(14.6%) with FIV≤7mL(25th-percentile) had mRS≥3; 65/275(23.6%) with FIV≥92mL(75th-percentile) had mRS≤2. Pre-specified pre-treatment factors(age/cancer/vascular risk-factors) were associated with FIV≤7mL/mRS≥3; stepwise models selected similar variables(similar AUCs:0.92-0.93,p=0.42). SAEs(infarct-in-new-territory/recurrent stroke/pneumonia/heart failure) were strongly associated with FIV≤7mL/mRS≥3; stepwise models also identified onset-to-needle time and hemoglobin(24-hours) as treatment-related/post-treatment factors(similar AUCs:0.92-0.94, p=0.14). Younger age was associated with FIV≥92mL/mRS≤2; stepwise models also selected diabetes absence and baseline hemoglobin(similar AUCs:0.76-0.77,p=0.82). Absence of SAEs(stroke progression/pneumonia/intracerebral hemorrhage) was strongly associated with FIV≥92mL/mRS≤2; stepwise