puncture in 66.7% (*possible* AIE 96.3%). A sizable proportion did not receive malignancy screening (overall 48.7%; *possible* AIE 29.6%). Conclusions: Antibody panels are overemphasized in the assessment for AIE and often performed unnecessarily, while other recommended clinical tests are not consistently completed.

NEUROCRITICAL CARE

P.031

The effect of burst suppression on cerebral blood flow and autoregulation in animals and humans - a systematic review

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Background: Burst suppression (BS) is an EEG pattern in which there are isoelectric periods interspersed with bursts of cortical activity. Targeting BS through anesthetic administration is used as a tool in the neuro-ICU but its relationship with cerebral blood flow (CBF) and cerebral autoregulation (CA) is unclear. We performed a systematic review investigating the effect of BS on CBF and CA in animals and humans. Methods: We searched MEDLINE, BIOSIS, EMBASE, SCOPUS, and Cochrane library from inception to July 2022. The data that were collected included study population, methods to induce and measure BS, and the effect on CBF and CA. Results: In total 45 animal and 26 human studies were included in the final review. In almost all the studies, BS was induced using an anaesthetic. In most of the animal and human studies, BS was associated with a decrease in CBF and cerebral metabolism, even if the mean arterial pressure remained constant. The effect on CA during periods of stress (hypercapnia, hypothermia, etc.) was variable. Conclusions: BS is associated with a reduction in cerebral metabolic demand and CBF, which may explain its usefulness in patients with brain injury. More evidence is needed to elucidate the connection between BS and CA.

NEUROIMAGING

P.032

Using clinical MRI scans for research purposes: a preliminary feasibility study

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Background: This project aims to bridge the gap between clinical data being collected at a local hospital to be used for research. Methods: 1.5T high-resolution anatomical MRI scans were collected from ten participants who were already undergoing clinical, imaging, and neurological assessment as part of their standard-of-care. Additional statistical models were used to examine the relationship between grey matter (using voxel-based morphometry [VBM]) and scores on the Toronto Cognitive Assessment (TorCA). Results: There was a lack of consistency in MRI scanning protocols and inconsistent reporting of clinical and neuropsychological data across participants. No significant relationship was found using the p-corrected images at p < 0.05. When viewing uncorrected images at a threshold of p < 0.001, we found a significant positive correlation between TorCA scores in the areas of the bilateral superior frontal gyrus, frontal pole, brain stem, and left putamen. Conclusions: Although no significant relationship was found between VBM metrics and TorCA scores, this project represents a crucial step in connecting health research with clinical practice where neuroimaging and neuropsychological assessments are already being collected. This project also informed our research team of areas that are needing to be streamlined and operationalized in future strategies for data collection and input.

NEUROLOGICAL IMPLICATIONS OF COVID-19

P.033

COVID-19: neurologic and cardiac complications among Chinese and South Asians in Ontario: waves 1-3

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Background: This is a population-based retrospective study of neurologic and cardiac complications of COVID-19 among Chinese and South Asians in Ontario during waves 1-3. Methods: Chinese and South Asians with COVID-19 were identified using a validated surname algorithm and their outcomes of mortality, and cardiac and neurologic complications with those of the general population using multivariable logistic regression models. Results: Compared to the general population (n= 439,977), the Chinese population (n= 15,208) was older (mean age 44.2 vs 40.6 years, P < 0.001) and the South Asian population (n=46,333) was younger (39.2 years, P < 0.001). The Chinese population had a higher 30-day mortality (odds ratio [OR] 1.44; 1.28-1.61) and more hospitalization or emergency department visits (OR 1.14; 1.09-1.28), with a trend toward a higher incidence of cardiac complications (OR 1.03; 0.87-1.12) and neurologic complications (OR 1.23; 0.96-1.58). South Asians had a lower 30-day mortality (OR 0.88; 0.78-0.98) but a higher incidence of hospitalization or emergency department visits (OR 1.17; 1.14-1.20) with a trend toward a lower incidence of cardiac complications (OR 0.76; 0.67-0.87) and neurologic complications (OR 0.89; 0.73-1.09). Conclusions: Ethnicity continues to be an important determinant of mortality, cardiac and neurologic outcomes, and healthcare use among Ontario patients with COVID-19.