

P.093**Hemoglobin values, fluctuations from baseline, and transfusion as predictors of outcome following aneurysmal subarachnoid hemorrhage***ME Eagles (Calgary)* MK Tso (Calgary) RL Macdonald (Toronto)*

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Background: Anemia following aneurysmal subarachnoid hemorrhage (aSAH) has been associated with poor outcome, but complications from transfusion have limited aggressive management of anemic patients. This study examined the relationship between hemoglobin levels, transfusion and outcome following aSAH. **Methods:** We performed a post-hoc analysis of the CONSCIOUS-1 trial. Poor outcome was defined as a 3-month modified Rankin Scale > 2. Minimum hemoglobin levels were evaluated as predictors of outcome using logistic regression analysis, ROC curve analysis, and LOWESS curves. Propensity score matching was used to assess the effect of transfusion on poor outcome in patients with minimum hemoglobin levels between 70-90 and 80-100 g/L. **Results:** Lower minimum hemoglobin levels were associated with poor outcome on both univariate ($p < 0.001$) and multivariate ($p = 0.012$) analysis. Area under the ROC curve for minimum hemoglobin was 0.673. Youden index analysis found a minimum hemoglobin threshold of 91.5 g/L maximally predictive for good functional outcome. Propensity score matching showed a trend towards poor outcome in transfused patients with minimum hemoglobin levels between 70-90 and 80-100 g/L ($p = 0.052$ and 0.09). **Conclusions:** This work suggests that decreasing hemoglobin is an independent predictor of poor outcome following aSAH. However, there was a trend towards poor outcome in transfused patients. The optimal transfusion threshold should be evaluated by prospective trials.

P.094**Characterizing post-stroke autonomic functioning. sub-study protocol of the clinical arm of PARADISE study***RS Alsubaie (London) M Paquet (London) J Paturel (London) S Fridman (London) K Kimpinski (London)* LA Sposato* (London)*

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Background: Strokes can cause a variety of cardiovascular complications. The underlying mechanisms are largely unknown but there is evidence that dysautonomia plays a role in stroke induced-heart injury (SIHI) and arrhythmias triggered by damage of specific brain regions involved in the autonomic regulation of cardiac functions. Understanding these mechanisms could aid in preventing these cardiovascular consequences. We hypothesize that compared to patients with sinus rhythm (SR) or with cardiogenic atrial fibrillation known before the stroke (cKAF) or diagnosed after the stroke (cAF-DAS), those with neurogenic AFDAS (nAFDAS) will show a specific pattern of autonomic functioning. **Methods:** We will prospectively evaluate 200 ischemic stroke patients at the London Health Sciences Center University Hospital. Participants will undergo continuous electrocardiographic monitoring during 14 days. Based on pre-specified criteria, patients with AFDAS will be classified into presumably neurogenic vs cardiogenic. We will assess autonomic function within 14 days after stroke onset by using the Autonomic Reflex Screening. We will compare markers of cardiac dysfunction with autonomic

changes, as well as specific stroke topographies for SR, cKAF, cAF-DAS, and nAFDAS. **Results:** We are currently performing an interim analysis. **Conclusions:** Characterizing the autonomic changes that occur after ischemic stroke and their relationship with heart injury will help to advance knowledge on the pathophysiology of SIHI.

P.095**Holey Spinal Cord - A case of spinal cord stroke secondary to fibrocartilaginous embolism***S Wasyliw (Saskatoon)* P Masiowski (Saskatoon)*

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Background: Fibrocartilaginous embolism (FCE) is a rare reported cause of spinal cord infarction and likely underdiagnosed due to clinical unfamiliarity. FCE can present after a mild trauma and is characterized by back or neck pain along and a rapidly progressive myelopathy. We present a case of FCE and discuss how this clinical entity can break the typical rules of stroke. **Methods:** Case presentation **Results:** An otherwise healthy, 56-year-old professional sports coach presented a couple day history of progressive leg paresthesias and mild back pain, followed by unsteady gait and then inability to void. The left leg demonstrated mild weakness, hyperreflexivity, ataxia and an upgoing plantar response. The right leg became spastic and he then developed bilateral impairment of vibration and proprioception at the toes. An initial limited MRI lumbar spine was negative. A repeat MRI spine showed mild diffusion restriction of T10-11 and T11-12 and evidence of a bone infarct L2. He was diagnosed with a spinal cord infarct secondary to FCE. **Conclusions:** FCE should be considered in the differential for acute myelopathy. It can present with a progressive nature like transverse myelitis and MRI may be non-diagnostic. As more cases are being reported, FCE is becoming better defined and recognized.

P.096**Iatrogenic pseudoaneurysm of the MCA secondary to VP shunt insertion***A Chalil (London)* MD Staudt (London)* SP Lownie (London)*

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Background: Ventriculoperitoneal (VP) shunting is a common treatment for hydrocephalus. Complications of VP shunt include infection, malfunction, and hemorrhage. Vascular complications such as pseudoaneurysm are rare, and usually involve the choroid plexus or branches of the external carotid artery. We present the case of a fusiform pseudoaneurysm of the middle cerebral artery arising due to VP shunt insertion. **Methods:** A 36-year-old female presented with a hypertensive cerebellar hemorrhage and hydrocephalus. This was treated with VP shunt placement with limited dural opening. Three weeks afterward there developed a diffuse intraventricular hemorrhage associated with hemorrhage at the cortical insertion site of the ventricular catheter. CT and catheter angiography revealed a fusiform pseudoaneurysm of the M4 segment of the MCA immediately adjacent to the ventricular catheter. **Results:** The VP shunt was removed, and the aneurysmal segment was coagulated and occluded. Delayed repeat VP shunt insertion was performed through the same entry point and trajectory via a larger dural opening. **Conclusions:** Pseudoaneurysm formation secondary to catheter insertion is a rare