hallucinations due to occipital lobe epilepsy. Results: A 67-year old woman with chronic hypertension, hyperlipidemia and diabetes mellitus non-compliant to medication presented with a 10-day history of recurrent visual phenomena in the left visual field. She described stationery multi-coloured flashing lights which decreased in intensity, brightness and size after 3 minutes. She was alert and conscious during attacks. There was no limb jerking. Neurological examination was normal with no visual field defect. Capillary glucose was 28.1 mmol/L, Hba1c 9% and B-hydroxybutyrate < 0.1. She was treated with actrapid 8 units, glipizide 5 mg BD and empagliflozin 12.5 mg OM. Interictal electroencephalogram was normal with no epileptiform activity. Brain magnetic resonance imaging revealed restricted diffusion in the right occipital cortex with corresponding cortical thickening and increased FLAIR signal with subtle hypodensity on GRE sequence. Her visual symptoms improved dramatically with hydration and diabetic control. She was treated with a short course of keppra. Conclusions: Visual hallucinations are an uncommon but well recognised and fully reversible complication of HHS. Clinicians should not forget HHS in the workup of occipital lobe epilepsy.

P.023

Impact of repeated nonconcussive hits on neurophysiological parameters in collegiate football athletes

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Background: A nonconcussive injury occurs from an impact to the head that does not result in overt symptoms. However, growing evidence suggests that the accumulation of nonconcussive impacts can result in neurological symptoms, either due to injury to the blood vessel or as a result of altered neural functioning. Despite this, the effects of repeated nonconcussive impacts on cerebral blood flow (CBF) and cerebrovascular reactivity (CVR) remain unclear. Methods: Twenty Canadian male collegiate football athletes were imaged at three time points: pre-, mid-, and post-season (3T Siemens Prisma) with arterial spin labelling (CBF) and a blood oxygen level-dependent sequence during which hypercapnia was induced (CVR; RA-MR, Thornhill Medical, Toronto, CA). Results: Significant changes in CBF and CVR were observed at both mid- and post-season compared to pre-season baseline measurements. Conclusions: Alterations in CBF and CVR may precede the emergence of neurocognitive symptoms later in life that may be associated with repetitive nonconcussive impacts. These findings highlight the potential of CBF and CVR as early biomarkers for trauma-related brain changes in contact sports. Future studies should investigate the long-term consequences of these physiological alterations and implement player safety protocols designed to reduce the prevalence of nonconcussive impacts.

Neuroscience Education

P.024

Supporting the transition from trainee to independent neurologist: development of a transition-to-practice clinic for senior neurology residents

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Background: Under Competence by Design (CBD), there are required training experiences (TEs) and entrustable professional activities (EPAs) in the Transition to Practice (TTP) stage. Limited literature exists to support an evidence-based approach to its implementation and evaluation. We created a novel outpatient rotation for PGY5 neurology residents, simulating independent practice and addressing the TTP TEs. Methods: We conducted a needs assessment with informal interviews of senior residents, the program director, and program administrator of our neurology residency program. Guided by Royal College requirements, and available TTP-focused literature, we designed a general neurology clinic run by PGY5 neurology residents. Focuses included increased independence and efficiency, longitudinal follow-up, and applied principles of practice management. Results: Go-live was August 1, 2024. Eight PGY5 residents completed one block, with a second scheduled later in the academic year. Eleven supervisors participated across two sites. Surveys and structured interviews will be used for both groups to evaluate the program, based on the Kirkpatrick Model. Conclusions: Development of a dedicated clinic addressing the TTP TEs in CBD is feasible. Iterative evaluation of the structure, delivery and outcomes of this required TE is critical to ensure that objectives are met and value is added to the residency curriculum.

Neurotrauma

P.026

Structural deficits with preserved kinematic performance after sport-related concussion

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Background: Identifying white matter abnormalities after acute concussion is challenging due to variable microstructural changes and individual imaging limitations. Combining diffusion tensor imaging (DTI) and neurite orientation dispersion and density imaging (NODDI) improves sensitivity to alterations.

This study integrates neuroimaging and behavioural assessments to improve detection and characterization of abnormalities for clinical management. Methods: We recruited 12 recently concussed athletes (21 ± 2.1 years, 7 ± 4.6 days post-injury; 9 completed behavioural testing) and 24 controls. All participants underwent DTI and NODDI to assess white matter integrity. Kinematic performance was evaluated using the Kinarm exoskeleton robot's Reverse Visually Guided Reaching (RVGR) task. Group differences in imaging and kinematic metrics were analyzed using permutation-based and parametric tests, controlling for age and sex. Results: Concussed athletes had elevated fractional anisotropy, reduced mean and radial diffusivity, and lower isotropic volume fraction in affected tracts. However, no group differences emerged in RVGR parameters, indicating intact sensorimotor function despite imaging abnormalities. Conclusions: Our findings reveal that acute concussion leads to measurable microstructural changes without corresponding functional deficits on a cognitive inhibition task. These findings highlight the clinical utility of neuroimaging for early and precise diagnosis, emphasizing its sensitivity over behavioural measures to detect subtle impairment for acute concussion management.

Neurovascular and Neurointerventional

P.027

Sex differences in symptomatic intracranial hemorrhage and procedural complications after endovascular thrombectomy: Analysis of the OPTIMISE registry

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Background: Studies have found similar rates of functional independence for men and women after endovascular thrombectomy (EVT). Less is known regarding EVT-related procedural complications and symptomatic intracerebral hemorrhage (sICH) between sexes. Methods: Using the OPTIMISE registry including data from 20 comprehensive stroke centers across Canada between 1/1/2018 and 12/31/2022, we performed a retrospective descriptive analysis of patients divided between men and women. Hemorrhagic transformation on follow-up imaging with associated clinical deterioration was required to define sICH. Results: 3631 patients were included (1778 men and 1853 women) for analysis. Female patients were older (71.8±14.6 vs 68.0±13.1 years, p<0.001). There were no differences in sICH rates (2.5% men vs. 2% women, p= 0.388}. Procedural complication rates were not different between men and women (5.8 vs 5.6% p=0.76): dissection {26 (1.5%) vs. 30 (1.6%), p=0.804}, perforation {11 (0.6%) vs. 7 (0.4%), p=0.426}, embolization {25 (1.4%) vs. 25 (1.3%), p=0.996} and arterial access complications {45 (2.5%) vs. 43 (2.3%), p=0.761}. Conclusions: In this large multicentre registry of stroke patients undergoing EVT, men and women had similarly low and reassuring rates of sICH and procedural complications. This complements previous data showing similar functional outcomes for men and women after EVT.

P.028

Tenecteplase for treatment of acute ischemic stroke in the extended time window, a review of current data

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Background: The use of Tenecteplase (TNK) in Extended Time Window (ETW) for Acute Ischemic Stroke (AIS) remains an ongoing debate. Methods: Systematic review of 3 Randomized controlled trials (RCTs)- TIMELESS, TRACE 3, CHABLIS-T II was conducted. Results: 1198 patients were enrolled: 603 received TNK, while 595 were controls. All 3 trials included patients with Internal Carotid and/ or Proximal Middle Cerebral Artery Occlusions; however, in TRACE 3, patients did not have access to endovascular thrombectomy. TIMELESS and CHABLIS-T II showed better recanalization in the TNK group but the median Modified Rankin Score was 3 at 90 days in both groups, demonstrating no benefit in clinical outcomes. Symptomatic Intracranial hemorrhage (sICH) was similar in the two groups. In TRACE 3, there was an improvement in functional outcomes at 90 days in the TNK group (33.0% vs. 24.2%), but the incidence of sICH was also higher (3.0% and 0.8%, respectively). Conclusions: Better recanalization rates are seen with TNK in ETW, but may not be associated with improved functional outcomes at 90 days compared to medical management. Incidence of sICH also remains largely favorable, except in TRACE 3, which showed a higher incidence in the TNK group. There remains a need for more RCTs in this population.

Other Adult Neurology

P.029

Personalized locomotor training with non-invasive spinal cord stimulation for functional recovery after spinal cord injury

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Background: Spinal cord injury (SCI) is a central nervous system injury that often leads to motor, sensory and autonomic