

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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doi: 10.1017/cjn.2025.10205

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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doi: 10.1017/cjn.2025.10206

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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doi: 10.1017/cjn.2025.10207

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.