

population. Emergency care appears to be delivered in a timely fashion. Both centers participate in research registries focused on collecting data related to tSCI, surgical interventions, and patient outcomes. Registries are valuable research tools that allow for an alternative way to examine the quality of care their patients receive.

P.077

A Concussion-U educational presentation improves knowledge and attitudes of concussion amongst elite female high-school hockey players

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Background: Research has suggested that female athletes have a higher incidence of concussion compared to their male counterparts. As such, programs designed to improve knowledge and attitudes of concussion should target this high-risk population. Previous work demonstrated the effect of a novel Concussion-U educational presentation on knowledge and attitudes of concussion amongst male Bantam and Midget AAA hockey players. The objective of this study was to determine if the same presentation was effective in improving the knowledge and attitudes of concussion in a cohort of elite female hockey players. **Methods:** 26 elite female high-school aged (14-17) hockey players from the province of New Brunswick consented to participate in the study. Each participant completed a modified version of Rosenbaum and Arnett's Concussion Knowledge and Attitudes Survey questionnaire immediately before and after a Concussion-U educational presentation. Results were compared across the two time-points to assess the effectiveness of the presentation. **Results:** Concussion knowledge and attitude scores significantly ($p < .001$) increased from pre-presentation to post-presentation by 12.5% and 13.4%, respectively. **Conclusions:** A Concussion-U educational presentation resulted in increased knowledge and improved attitudes towards concussion in elite female hockey players. Future research should examine the long-term retention of these improvements.

P.080

Traumatic brain injury in a rural indigenous population in Canada: a community-based approach to surveillance

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Background: Indigenous populations are disproportionately affected by traumatic brain injury (TBI). These populations rely on large jurisdiction surveillance efforts to inform their prevention strategies, which may not address their needs. This study describes the TBI determinants of a Quebec indigenous population, the Cree served by the Terres-Cries-de-la-Baie-James health region, and compares them to the determinants of two neighbouring health regions and the entire Province of Quebec. **Methods:** We conducted a retrospective population-based cohort study of incident TBI hospitalizations, stratified by the aforementioned health regions, in Quebec from 2000-2012. MED-éCHO administrative data were used for case finding. A sub-analysis of the Terres-Cries-de-la-Baie-James

adults was completed to assess for determinants of TBI severity and outcomes. Regression models, multiple imputations and a sensitivity analysis were used to account for biased associations. **Results:** 172 incident TBI hospitalizations occurred in the Terres-Cries-de-la-Baie-James region from 2000-2012. The incidence rate was 92.1 per 100,000 person-years and the adjusted IRR was 1.86 (95% CI 1.56-2.17) when compared to the entire province. Determinants of TBI for the Terres-Cries-de-la-Baie-James were significantly different from those of neighboring populations and the entire province. **Conclusions:** TBI surveillance information from large jurisdiction initiatives can be misleading for indigenous communities. Community-based surveillance provides evidence that these populations should use to prioritize prevention strategies.

P.081

Penetrating brain injury, recent case series of a single institution and literature review

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Background: Penetrating brain injury is a rare entity. Furthermore, clinical presentation can be highly variable and management difficult, especially when the foreign body is retained in the skull. **Methods:** We present a series of three recent cases of penetrating brain injury that happened at our institution including clinical and radiological data. We discuss management of those challenging cases and present a brief review of the literature. **Results:** Our cases (3) encompassed different mechanisms: bilateral nail gun injury, knife and aircraft propeller. All patients were male, with a median age of 37 years old. Work-up was negative for intracranial vascular injury. All patients were treated with initial craniectomy (bilateral in one case) and a course of antibiotics. Cranioplasty was later performed. All patients survived and evolved in favorable fashion. **Conclusions:** Penetrating brain injury is a rare injury, requiring individualized surgical and medical management. A few recommendations may be found in the literature but are often based on literature from blunt traumatic brain injury or war-related injuries.

P.082

Traumatic inter hemispheric subdural hematomas – clinical presentation, management and outcome

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Background: There is currently little data on the incidence, clinical outcome and management of traumatic interhemispheric subdural hematomas (IHSDHs). **Methods:** All patients admitted with an acute subdural hematoma (SDH) over a 5-year period at a Level I trauma center were included. A detailed review of all cases of large IHSDH (≥ 7 mm) was performed to document clinical presentation, management and outcomes. **Results:** Of 1182 patients with acute subdural hematomas (SDHs), 420 had IHSDHs (24%), and 50 were large IHSDHs. For patients with large IHSDH, the average age was 76 years (± 11) and 44% were female. The average GCS was 12 on presentation (± 4), and the average GOSE was 4 (± 2). 66% of patients had associated cranial/ intracranial injuries (fracture, subarachnoid/