

show 93.8% response rate (15/16 residents). 66.7% of residents feel that CBD is moderately important or higher to their education. Over the 10 study weeks, there were only 8 completed EPAs (expected was 50), five of which were completed by a single resident. Major expressed barriers of implementation of CBD were time involved (50.0%) and technical unfamiliarity with the platform itself (50.0%). **Conclusions:** This study demonstrates the critical importance of piloting a CBD program prior to official implementation as immediate buy-in was significantly slower than anticipated. Technical and time barriers exist which need to be rectified in advance of July 2019.

NEUROTRAUMA

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Traumatic spinal cord injuries among aboriginal and non-aboriginal populations of Saskatchewan: a prospective outcomes study

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Background: People of aboriginal ancestry are more likely to suffer traumatic spinal cord injury (TSCI) compared to other Canadians; however, outcome studies are limited. This study aims to compare aboriginal and non-aboriginal populations with acute TSCI with respect to: pre-injury baseline, injury severity, treatment, outcomes, and length-of-stay characteristics. **Methods:** This was a retrospective analysis of 159 patients with TSCI prospectively enrolled in the prospective Rick Hansen Spinal Cord Injury Registry (RHSCIR), Saskatoon site between February 13, 2010 and December 17, 2016. **Results:** Sixty-two patients consented to the full dataset, which includes ethnic background: 21 'aboriginal' (33.9%); 41 'non-aboriginal' (66.1%). Aboriginal patients were younger, had fewer medical comorbidities and had similar severity of neurological injury and similar outcomes compared to non-aboriginal patients. However, the time to discharge to the community was significantly longer (median 104.0 days versus 38.5 days, $p=0.021$). While 35% of non-aboriginal patients were discharged home from the acute care site, no aboriginal patients were transferred home directly. **Conclusions:** This study suggests a need for better allocation of resources for transition to the community for First Nations patients with TSCI in Saskatchewan. We plan a further study to assess outcomes from TSCI for First Nations patients across Canada.

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Management of a maxillofacial, transclival penetrating injury

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Background: Penetrating traumatic injuries to the clivus are rare. We describe the case of a 79-year-old man who presented to the emergency room with a butter knife protruding from his left cheek. Imaging showed the blade entering just beneath the left zygoma and transecting the clivus to terminate within the prepontine

cistern. The tip of the knife abutted the right anterior inferior cerebellar artery and lower basilar artery. **Methods:** He was brought to the interventional neuroradiology OR with knife in place, by a combined surgical team of ENT, neurosurgery, and neuroradiology. Under local anaesthetic and intravenous sedation, vascular access to the distal left vertebral artery was obtained and a balloon positioned. Traction was applied to the knife and the knife was successfully removed avoiding any angular or rotational movements. An immediate angiogram showed no evidence of arterial injury. **Results:** The patient recovered uneventfully and was discharged home with no neurological deficit. Follow-up CT/CTA was performed a month later and confirmed no pseudoaneurysm or other complication. **Conclusions:** Management of penetrating skull base injuries by a multidisciplinary surgical team is advisable. Vascular imaging is crucial. Positioning of balloons within large vessels close to the penetrating object is recommended to control bleeding that may occur on removal.

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Systematic review of civilian pediatric intracranial gunshot wounds

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Background: Pediatric craniocerebral gunshot wounds occur in the context of both accidental and intentional trauma. Unique physiologic factors merited research into prognostic factors and treatment priorities in the pediatric population. **Methods:** A systematic search of MEDLINE, EMBASE, Web of Science, LILACS, Cochrane Registered Trials and Systematic Reviews, ISRCTN, and ClinicalTrials.gov was conducted. Selection criteria included all studies published in any language since 2000 which described intracranial isolated gunshot wounds in a civilian individual or population of pediatric age. Post-mortem and epidemiological studies were excluded. Screening was conducted through Covidence. **Results:** Initial database search revealed 349 unique studies for abstract and title screening. Fifty studies were selected for full text screening. Nine studies were included in the final review. Study quality was assessed with the Newcastle-Ottawa Scale. Case series noted bullet migration, pituitary deficiency, neurovascular and neuropsychological concerns. Three single-center retrospective studies of 71, 30, and 48 pediatric patients suggested multiple negative prognostic signs on initial presentation. Early aggressive surgical treatment was recommended by some authors. **Conclusions:** This systematic review analyzed the best current understanding of evidence for prognostic factors and treatment considerations of intracranial gunshot wounds in the pediatric neurotrauma context. Areas for future research with larger multi-center studies were highlighted.