P.150

The Canadian Medical Student Interest Group in Neurosurgery (CaMSIGN) platform: a retrospective study on Canadian medical students

S Arfaie (Montreal) *MS Mashayekhi* (Vancouver) *PL Farimani* (Vancouver)* *B Hakak-Zargar* (Geelong) *P Kawalec* (Winnipeg) *J Saini* (Saskatoon)* *ER Swan* (Vancouver) *DJ Sonfack* (Laval), *A Ahmed* (London)

doi: 10.1017/cjn.2022.234

Background: The Canadian Medical Student Interest Group in Neurosurgery (CaMSIGN) is the first neurosurgery platform of its kind in Canada. Methods: In this retrospective study, data from CaMSIGN's online platforms have been collated from February 2021 to the present and analyzed to show trends in user engagement. Results: CaMSIGN events generated 1,575 views on YouTube (384 from Canada). The total watch time was 170.3 hours, of which 43.9 hours were Canadian (28.5%). The total views normalized by the total number of students interested in neurosurgery was 17.12 hours. The normalized Canadian view was 4.17. 717 people follow the CaMSIGN Facebook account (normalized= 7.79). 152 people follow our Instagram (normalized= 1.65). 338 people follow our Twitter (normalized= 3.67). This number is comparable to that of estimated practicing neurosurgeons in Canada (333). A total of 32,974 people visited the Twitter page, with a monthly average of 2747.8. Lastly, the campaign website has had 5,811 visitors since its launch in June 2021 with a monthly average of 695.57 visitors. The number of website visitors has increased at a rate of 3.1327 visitors/month. Conclusions: Through this initiative, our aim has been to model a pan-Canadian approach to neurosurgery.

Neurotrauma

P.153

Traumatic spinal cord injuries among indigenous and non-indigenous peoples of Canada

A Persad (Saskatoon)* *B Renne* (Saskatoon) *M Jeffrey* (Toronto) *S Ahmed* (Saskatoon) *S Humphreys* (Vancouver) *D Kurban* (Vancouver) *C Rivers* (Vancouver) *C Cheng* (Vancouver) *D Wang* (Vancouver) *T Shen* (Vancouver) *X Liu* (Saskatoon) *S Christie* (Halifax) *T Clarke* (Calgary) *B Drew* (Hamilton) *K Ethans* (Winnipeg) *MG Fehlings* (Toronto) *A Linassi* (Saskatoon) *C O'Connell* (Fredericton) *J Paquet* (Quebec) *L Scott* (Saskatoon), *D Fourney* (Saskatoon)

doi: 10.1017/cjn.2022.235

Background: Despite a higher prevalence of traumatic spinal cord injury (TSCI) amongst Canadian Indigenous peoples, there is a paucity of studies focused on Indigenous TSCI. We present the first Canada-wide study comparing TSCI amongst Canadian Indigenous and non-Indigenous peoples. Methods: This study is a retrospective analysis of prospectively-collected TSCI data from the Rick Hansen Spinal Cord Injury Registry (RHSCIR) from 2004-2019. We divided participants into Indigenous and non-Indigenous cohorts and compared them with respect to demographics, injury mechanism, level, severity, and outcomes. Results: Compared with non-Indigenous patients, Indigenous patients were younger, more female, less likely to have higher education, and less likely to be employed. The mechanism of injury was more likely due to assault or transportation-related trauma in the Indigenous group. The length of stay for Indigenous patients was longer. Indigenous patients were more likely to be discharged to a rural setting, less likely to be discharged home, and more likely to be unemployed following injury. Conclusions: Our results suggest that more resources need to be dedicated for transitioning Indigenous patients sustaining a TSCI to community living and for supporting these patients in their home communities. A focus on resources and infrastructure for Indigenous patients by engagement with Indigenous communities is needed.

Neurovascular and Neurointerventional

P.154

Characterizing and comparing brain injury associated with traditional self-retracting brain retractors with novel tubular retractors

A Naeem (Windsor)* *G Dryden* (London) *R Hammond* (London) *M Speechley* (Canada) *K Wade* (London), *M Boulton* (London)

doi: 10.1017/cjn.2022.236

Background: Tubular retractors are FDA approved and in the Neurosurgical marketplace, but adaptation has been hampered by lack of evidence showing superiority over traditional retractors when performing subcortical surgery. This study examines brain injury associated with traditional brain retractors versus tubular retractors. Methods: Nine porcine models underwent a simulated neurosurgical operation. Retractors were inserted for four hours after which the porcine model was euthanized. The en-bloc extracted porcine brain was fixed in 10% formalin, paraffin embedded, sectioned at 4 um and stained with hematoxylin and eosin (H&E) using standard laboratory protocols. Computer algorithms were generated to calculate areas of cerebral edema and hemorrhage adjacent to retractor surfaces. Results: Using a two-tailed t-test with a significance level of 0.05, traditional brain retractors were associated with statistically significantly greater cerebral edema when compared to tubular retractors (17.36 um^2 vs. 12.42 um^2; $p = 0.0038$). There was no statistically significant difference in mean areas of hemorrhage between traditional brain retractors and tubular retractors noted (3.43 um^2 vs 3.60 um^2; $p = 0.8297$). Conclusions: Tubular retractors are associated with significantly less edema in surrounding brain than traditional retractors. On histopathological merits, this study supports the application of tubular retractors over traditional retractors.