

challenged by variable recurrence rates. Less invasive methods of embolization of the middle meningeal artery (EMMA) could reduce the recurrence rates. Before adopting a newer treatment (EMMA), it is prudent to establish the outcomes from surgical drainage. The purpose of this study is to assess the clinical outcome and recurrence risk in surgically treated CSDH patients. Methods: A retrospective search of our surgical database was done to identify CSDH patients undergoing surgical drainage in 2019-2020. Demographic and clinical details were collected through chart review and a qualitative statistical analysis was performed. Results: A total of 136 patients (mean age-68 years; range-21-100 years; Male-105) with CSDH underwent surgical drainage with repeat surgery in 11.8%(n=16). Periprocedural mortality and morbidity were 8.8%(n=12) and 20.6%(n=28), respectively. No radiological follow-up was seen in 30(22%) of patients. Of those with follow-up, recurrence was seen in 21.7%(n=23). Mean hospital stay was 9.64 days. Conclusions: Our retrospective study showed periprocedural morbidity (20.6%) and mortality (8.8%) with a 21.7% risk of recurrence. This is likely due to older patients but is in keeping with what is reported in the literature.

## P.120

### Contrast induced encephalopathy following endovascular therapy for the treatment of cerebrovascular disease

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Background: Contrast induced encephalopathy (CIE) is an underrecognized, adverse effect of contrast administration during endovascular procedures. A paucity of literature exists regarding CIE following treatment of cerebrovascular disease. As such, we sought to describe our institutional experience with this entity. Methods: We searched our neurovascular database for instances of CIE following endovascular therapy for cerebrovascular disease. We extracted patient data, including demographics, comorbidities, procedural data, symptoms, radiological findings, and treatment. Informed consent was obtained in all cases. Data was analyzed using descriptive statistics. Results: Two patients underwent coiling of cerebral aneurysms; four were treated for ischemic stroke (thromboembolism or large artery atherosclerosis). Mean age was 67.2 years. Risk factors for microvascular dysfunction were identified for most patients: hypertension (100%), obesity (83%), dyslipidemia (83%), prior stroke (83%), renal disease (80%), and connective tissue disorders (33%). Mean operative duration: 284.5 minutes. Mean contrast volume: 285.7 mL. Decreased level of consciousness and lateralizing neurological deficits were the most common CIE-related symptoms. Treatments included intravenous fluids, corticosteroids, and anti-hypertensives. Radiographic findings included effaced cortical sulci, parenchymal edema, and cortical/subarachnoid contrast enhancement. Conclusions: Here, we describe our

institutional experience with CIE following endovascular therapy for cerebrovascular disease. We hypothesize that CIE may be facilitated by pre-existing microvascular pathology.

## P.121

### Ruptured intracranial infectious aneurysms: single Canadian center experience

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Background: Ruptured Intracranial Infected Aneurysms (IIAs) are relatively rare, but they portend high mortality. To our knowledge, there are no Canadian case-series on IIA, as well there is a relative paucity of international published experiences. Our purpose is to share the experience of a single Canadian tertiary centre in managing ruptured IIA and to conduct a systematic review. Methods: We did a retrospective case review series of adult patients with ruptured IIA treated at our institution. Secondly, we conducted a systematic review of literature on ruptured IIA between 2011-2021 inclusive. Results: At our institution, of a total 8 cases with ruptured IIA, 4 were treated endovascularly and 2 by surgical bypass. For the systematic review, we included 9 non-comparative studies with a total of 509 patients (318 males) and at least 437 ruptured IIA aneurysms. Favourable outcome was specified for 63.3% of patients (n=57). Regarding ruptured IIA, favourable clinical outcome was described in 59.3% (n=16). Conclusions: This study highlights a single Canadian tertiary centre experience in the management of IIA and compares it to the global trends of the last 10 years in a systematic review.

## NEUROSURGERY (CNSS)

### FUNCTIONAL NEUROSURGERY AND PAIN

## P.122

### Unbiased whole brain circuit interrogation reveals neurons restoring walking after spinal cord injury

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Background: There is presently no cure for locomotor deficits after spinal cord injury (SCI). Very few therapies effectively