

B.02

Fluoroquinolone antibiotics and risk of secondary Pseudotumor Cerebri Syndrome

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Background: Fluoroquinolones (FQs) are one of the most prescribed classes of antibiotics in North America. There have been a number of cases reports linking FQs with secondary pseudotumor cerebri syndrome (PTCS) but data from large epidemiological studies are lacking. **Methods:** We conducted a case-control study of people 15-60 years of age from the LifeLink Database (IMS, USA). Cases had the first international classification for disease 9th edition clinical modification (ICD-9 CM) code for benign intracranial hypertension (BIH) as well as having received a procedure code for an MRI or CT scan and a lumbar puncture within 15 days or 30 days of receiving the BIH code. For each case, ten controls were selected and matched to the cases by age, gender and calendar time. **Results:** From a cohort of 6,110,723 people, there were 339 cases of PTCS and 3,390 corresponding controls. In the primary analysis, the adjusted rate ratio (RR) for current users for fluoroquinolones for both the 15 day and 30 day definitions were 5.67 (95% CI:2.72-11.83) and 4.15 (95% CI:2.29-7.50) respectively. **Conclusions:** Our study suggests an increase in the risk of PTCS with current users of fluoroquinolones. Patients who experience symptoms of raised intracranial pressure including headaches and double vision when on FQs should seek medical attention.

B.03

Safety and effectiveness of insular resections for drug-resistant epilepsy

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Background: Insular cortex involvement as a part of epileptogenic zone is often suspected in the context of operculo-insular semiology and can be confirmed by routine interrogation of the insula with stereo-electroencephalography (SEEG). However the safety and efficacy of insular resections remains unclear. **Methods:** We reviewed all the patients who underwent insular resection for drug-resistant epilepsy, from 2002 – 2016, in the Calgary Epilepsy Program. Details of the comprehensive pre-surgical evaluation, surgery performed, complications and seizure outcome at the latest follow-up were collected. **Results:** Fifteen patients (8 males, 7 females) with age range 3 – 41 years were identified. MRI was normal in 9 patients. The decision to resect the Insula was made based on clinical semiology and structural and functional imaging in 6 patients and on SEEG findings in 9 patients. Insular resection was total in 11 and partial in 4 patients. Four (26%) patients had transient hemiparesis and 1 patient had permanent mild upper extremity weakness following total resection. After a mean follow-up period of 45.6 months (range 2 – 150 months), 40% of the patients are seizure free. **Conclusions:** Insular cortex resections for drug resistant epilepsy can be performed safely

and may contribute to additional effectiveness in seizure outcomes in patients with challenging extra-temporal epilepsy.

B.05

Hemi-laryngopharyngeal spasm (HELPS) syndrome: The discovery, cure, and characterization of a new neurological condition

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Background: We published the world's first case of hemi-laryngopharyngeal spasm (HELPS) syndrome cured by microvascular decompression (MVD) of the Xth cranial nerve in 2016. We now present a small cohort of patients (n=3) successfully treated with surgery in order to better delineate the common characteristics of this syndrome, diagnostic tests of choice, nuances of their surgical care and outcomes of their treatment. **Methods:** The history and physical examination of three patients with HELPS syndrome are presented. Pre-operative laryngoscopy, neuroimaging, response to botox and intra-operative videos are detailed. Post-operative outcome and complications are presented. **Results:** Each patient reported similar motor (choking) and sensory (coughing) features in their history. Episodic choking relentlessly progressed over the years until it occurred while sleeping and with frightening severity prompting tracheostomy in one patient and intubation in another. A “tickling” sensation deep in the throat triggered episodic coughing that worsened over the years until it occurred while sleeping and with frightening severity (syncope and incontinence). **Conclusions:** A review of the literature suggests that patients with similar symptoms, often called episodic laryngospasm in the past, have been treated with psychotherapy or antacids. With the recognition that a clearly defined subset of these patients have HELPS syndrome, we can offer them the potential of a neurosurgical cure.

B.06

The “Worried Well”?: characteristics of cognitively normal patients presenting to a rural and remote memory clinic

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Background: In an effort to better understand why cognitively normal patients are referred to a memory clinic, we sought to identify features of “worried well” patients to better identify those more likely to be cognitively normal. **Methods:** Three hundred and seventy-five consecutive patients referred by primary care practitioners to a Rural and Remote Memory Clinic, were categorized into two groups based on their neurologic diagnosis, “worried well” (cognitively normal, N=81) or “other” (patients with any neurologic diagnosis, N=294). The two groups were compared using a t-test and a Chi-squared test. The same comparison was done between the same set of “worried well” patients (N=81) and the subgroup of patients with a diagnosis of Alzheimer's disease (N=146) from the “other” group. Ethics approval was obtained from the University of Saskatchewan Biomedical Research Ethics Board. **Results:** Significant differences included younger age, more formal education, more frequent previous