power > 0.8). *Conclusion:* Volume-based reporting of SRS outcomes for meningiomas is more accurate for reporting tumor control. Conformity index and TVR were identified as predictors of edema following radiosurgery.

## F.10

Recent trends in hospitalization and in-hospital mortality associated with traumatic brain injury in Canada: a nationwide, population-based study

T Fu (Toronto)\* R Jing (Toronto) S McFaull (Ottawa) M Cusimano (Toronto)

doi: 10.1017/cjn.2015.111

Background: Traumatic brain injury (TBI) is the leading cause of traumatic death and disability worldwide. We examined nationwide trends in TBI-related hospitalizations and in-hospital mortality between April 2006 and March 2010 using a population-based database that is mandatory for all hospitals in Canada. Methods:

Trends in hospitalization rates were analyzed using linear regression. Independent predictors of in-hospital mortality were evaluated using logistic regression. Results: Hospitalization rates remained stable for children and young adults, but increased considerably among elderly adults (ages 65 and older). Falls and motor vehicle collisions (MVCs) were the most common causes of TBI hospitalizations. TBIs caused by falls increased by 24% (p=0.01), while MVC-related hospitalization rates decreased by 18% (p=0.03). Elderly adults were most vulnerable to falls, and experienced the greatest increase (29%) in fall-related hospitalization rates. Young adults (ages 15-24) were most at risk for MVCs, but experienced the greatest decline (28%) in MVC-related admissions. There were significant trends towards increasing age, injury severity, comorbidity, hospital length of stay, and in-hospital mortality. However, multivariate regression showed that the odds of death decreased over time after controlling for relevant factors. Conclusions: Hospitalizations for TBI are increasing in severity and involve older populations with more complex comorbidities.