The Epidemiology of Central and Extraventricular Neurocytoma in the United States Between 2006-2014.

Poster ID: 42567

Shahed Tish MD$^1$, Ghaith Habboub MD$^2$, Jaes Jones MS$^1$, Min Lang MS$^1$, Samantha Colby MS$^1$, Josie Volovetz MS$^1$, Quinn T. Ostrom MPH$^3$, Alex Witek MD$^2$, Carol Kruchko BSc$^3$, Jill S. Barnholtz-Sloan PhD$^3$, Pablo F. Recinos MD$^{1,2}$, Varun Kshettry MD$^{1,2}$.

1. Rose Ella Burkhardt Brain Tumor and Neuro-oncology Center, Cleveland Clinic, Cleveland, Oho.
2. Department of Neurosurgery, Cleveland Clinic, Cleveland, Ohio.
3. Case Comprehensive Cancer Center, Case Western Reserve University School of Medicine, Cleveland, OH
Disclosure

I DO NOT have any financial or organizational relationships with commercial interests or other entities. I hereby certify that to the best of my knowledge, no aspect of my current personal or professional circumstances places me in the position of having a conflict of interest with my duties, responsibilities and exercise of independent judgement as an Officer, Member of the Board of Directors, Nominee for Office, Educational Presenter and/or a representative of AANS/NREF/NPA.
Central neurocytoma (CN) and extraventricular neurocytoma (EVN) are rare intracranial tumors with a benign nature. CN is typically located in the lateral ventricles near the foramen of Monro. EVN is a rare variant of central neurocytoma. EVN has the same histopathological features of CN. The literature lacks population based epidemiological studies on both CN and EVN.
Methods

The Central Brain Tumor Registry of the United States (CBTRUS) data were used for analysis. CBTRUS combines data from the Center for Disease Control’s National Program of Cancer Registries and the National Cancer Institute Surveillance Epidemiology and End Results Program, which represents ~99% of the US population. The following criteria were used: diagnosis years 2006 to 2014, CN and EVN ICD-0-3 histology codes (9506/0: Central neurocytoma, benign; 9506/1: Central neurocytoma).
Results and Discussion

The overall annual incidence rate of CN and EVN is 0.032 per 100,000. The annual incidence rates were 0.009, 0.022 per 100,000 for EVN, and CN, respectively. The peak adjusted incidence rates were in the 20-34 years range in both CN and EVN. There was no statistically significant difference in the distribution between males and females. The overall incidence rate of CN and EVN is lower in blacks (0.026 per 100,000, p=0.01) compared to other races. The most frequently documented locations for EVN were frontal lobe and cerebellum.
Conclusion

CN and EVN are rare intracranial tumors with overall incidence rate of 0.032 per 100,000. Male to female ratio is about 1:1. We noted a peak in the age range of 20-34 and a slightly lower incidence in blacks compared to other races. This represents the most comprehensive epidemiological study in the United States on CN and EVN.