



## Psychiatry & Behavioral Sciences Section – 2007

### 128 The Psycho-Legal Implications of Brain Trauma: A Case of Episodic Dyscontrol and Central Brain Tumor

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After attending this presentation, attendees will be exposed to an actual case of episodic dyscontrol that is linked to central brain tumor neurosurgery. The case example will include neuroimaging results and social history information. The impact of the forensic examination on legal disposition will be outlined to give attendees insight into how the neurological condition can be used in mitigation.

This presentation will impact the forensic community and/or humanity by increasing understanding of the interaction of neurological conditions and human physical aggression. The community will gain insight as to how to conceptualize such criminal cases & legal strategies towards effective dispositions.

Upon completing this lecture, the participant will be able to understand the phenomenon of episodic dyscontrol linked to central brain tumor. With a criminal case featuring neuroimaging data and social history information, attendees may develop forensic strategies to assist the court system in mitigation and effective legal dispositions.

The presentation will influence the forensic community by demonstrating one result of an undisclosed central brain tumor and human physical aggression. The community will gain insight as to how a person's neurological condition may be used as mitigation at a criminal trial.

Forensic examiners are often presented with criminal cases involving domestic violence or episodic dyscontrol. In such cases, the defendant's personality constitutional (static) and situational (dynamic) factors are often assessed in opining causality, dangerousness risk and dispositional recommendations. When a defendant presents with an overt neurological condition, such as trauma or stroke, examiners and the court are often drawn to the unconcealed brain damage in explaining away the criminal act. However, in the case of central brain tumors, the defendant often appears normal apart from nonspecific somatic complaints such as headaches, nausea, or dizziness. Such nonspecific symptoms pose a problem in attempting to explain the defendant's alleged violent criminality.

This presentation will provide an example of a central brain tumor and its link to criminally violent behavior. The case involves a 21-year-old female charged with two counts of assault with a knife and vehicle. The defendant had dated the victim for 3 years and ended a few weeks before the instant offense. On 10/26/05, the defendant got into an argument with the victim and the victim's new girlfriend. In the midst of the argument, the defendant became enraged, pulled out a kitchen steak knife, and assaulted the victim. The victim fled in his vehicle, followed by the defendant in her vehicle. Within a few blocks, the defendant struck the victim's vehicle. The defendant had no history of criminality and was released on own recognizance with an electronic monitor.

The forensic examination revealed a family history of property crimes, cocaine use, and a sister with bipolar illness. She completed high school and worked recently as a data entry clerk. There was no history of mental health treatment or illicit substance use. Alcohol use was restricted to rare social events. In the year prior to the instant offense, the defendant began experiencing physical symptoms, including chronic headaches, lactation during intercourse, abnormal menstrual periods, nausea, and vomiting. She was eventually diagnosed with a tumor located in her pituitary gland. On 9/23/05, the tumor was reduced through nasal surgery, approximately 30 days before the instant offense.

In the forensic evaluation report, the defendant was diagnosed with an adjustment disorder with a disturbance of conduct. Prior to the evaluation, the strategy of defense counsel was to present the case as a domestic conflict leading to aggressive behavior. The defendant was angry simply because the victim had a new girlfriend. However, the neurological condition provides a different conceptual framework. Because the central brain region is linked to emotions and social control, the recent neurosurgery may have left the defendant vulnerable to episodic dyscontrol. Additionally, any dispositional recommendations would have to acknowledge the role of the treating endocrinologist, neurologist, and mental health clinician.

As a part of this presentation, a combination of clinical data and neurological imaging data will be presented to understand better the nature of the defendant's brain trauma. Records from treating physicians and neurosurgeons will highlight the link between the tumor and behavioral dyscontrol.

**Violence, Brain Trauma, Forensic Evaluation**