



Pathology Biology Section – 2010

G12 Case Example: Cerebral Dural Venous Sinus Thrombosis Following a Motor Vehicle Accident

*Ariel Goldschmidt, MD**, Jackson County Medical Examiner's Office, 1700 Forum Boulevard, Apartment 509, Columbia, MO 65203; *Adrian Baron, MD*, and *Megan Minniear, BS*, 660 East 24th Street, Kansas City, MO 64108

After attending this presentation, attendees will understand general principles related to cerebral dural venous sinus thrombosis, especially those impacting the forensic science community, including presenting signs and symptoms, risk factors, clinical diagnostic tests, potential autopsy findings, and pathophysiology. Additionally, a specific case example from the Jackson County Medical Examiner's office illustrating many of the above principles will be presented.

This presentation will impact the forensic science community by reviewing findings related to cerebral dural venous sinus thrombosis that could easily be overlooked by medicolegal investigators, clinicians, and/or forensic pathologists unfamiliar with this potentially fatal condition.

Once familiar with this condition, medicolegal professionals will be less likely to overlook subtle diagnostic clues in a decedent's medical history and/or postmortem examination.

Among the information presented in this presentation will be anatomical diagrams and images illustrating the cerebral dural venous sinus system and potential areas of thrombosis. The potential for cerebral dural venous sinus thrombosis to cause a fatal cerebral infarct will be discussed. Risk factors including traumatic head injury and hypercoagulability from various medical conditions including dehydration from diabetes mellitus will be discussed. Images from a case example will be used to show petechial hemorrhages in the brain, a common autopsy finding in cerebral dural venous sinus thrombosis. Additional images from the case example will show scattered pulmonary thromboemboli; pulmonary thromboembolism is a rare and serious potential complication of cerebral dural venous sinus thrombosis of which many medicolegal professionals are undoubtedly unaware.

A complete case example from the Jackson County Medical Examiner's Office will be presented, including scene investigation findings, medical history including CT and MRI radiologic findings, and gross autopsy findings as described above.

Sinus, Thrombosis, Thromboembolism